

CITY OF PALM DESERT GENERAL PLAN UPDATE & UNIVERSITY NEIGHBORHOOD SPECIFIC PLAN

DRAFT ENVIRONMENTAL IMPACT REPORT

SCH#2015081020

Prepared for:

CITY OF PALM DESERT
73-510 FRED WARING DRIVE
PALM DESERT, CA 92260

Prepared by:

Michael Baker
INTERNATIONAL

9755 CLAIREMONT MESA BOULEVARD
SAN DIEGO, CA 92124

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AUGUST 2016

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1. INTRODUCTION

This section contains an introduction to the environmental analysis, including a description of the environmental setting. The reader is referred to the individual technical sections (Sections 4.1 through 4.15) for topic-specific assumptions, methodologies, and significance criteria used in the impact analysis. A Technical Background Report (TBR), attached to this document as **Appendix 4.0**, describes and analyzes existing conditions in and around the city. The TBR provides a foundation for the development of goals, policies, and programs in the Palm Desert General Plan update and a basis for the Environmental Setting section for each environmental issue area addressed in this EIR. For purposes of this EIR, the Palm Desert General Plan update (proposed project) refers to the whole of the action described in Section 2.0, Project Description, of this EIR. Where analysis concerns a portion of the proposed project the portion of the proposed project will be identified.

Environmental Setting/Definition of the Baseline and EIR Assumptions

According to Section 15125 of the California Environmental Quality Act (CEQA) Guidelines, an EIR must include a description of the existing physical environmental conditions in the vicinity of the project to provide the “baseline condition” against which project-related impacts are compared. Normally the baseline condition is the physical condition that exists when the Notice of Preparation (NOP) is published. The NOP for the EIR was published on August 5, 2015 (see **Appendix 1.0**). **Table 1-1** summarizes the NOP comment letters received (see **Appendix 1.0** for full comment letters).

Table 1-1 Summary of NOP Comments

Commenting Agency	Person	Date of Comment Letter	Summary of Comments
South Coast Air Quality Management District (SCAQMD)	Ian MacMillan, Planning and Rules Manager	August 13, 2015	The SCAQMD recommends that the lead agency use the CEQA Air Quality Handbook as guidance when preparing its air quality analysis. Further, the lead agency should identify any potential adverse air quality impacts that could occur from all phases of the project and all air pollutant sources related to the project. In the event that the project generates significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized during project construction and operation to minimize or eliminate these impacts.

Table 1-1, continued

Commenting Agency	Person	Date of Comment Letter	Summary of Comments
State of California, Governor’s Office of Planning and Research	Scott Morgan, Director, State Clearinghouse	August 12, 2015	The Office of Planning and Research states that responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the lead agency.
Riverside County Department of Water Resources	Kinika Hesterly, Urban/Regional Planner III	August 25, 2015	The Riverside County Department of Water Resources states that to assess waste impacts, the DEIR will need to include the projected amount of waste generated by the project, using an appropriate waste generation factor for constructing activities and the project’s types of land uses. Further, the letter states that the project proponent is encouraged to consider incorporating measures to enhance the City’s efforts to comply with the State’s mandate of 50 percent solid waste diversion from landfills.
Soboba Band of Luiseño Indians	Joseph Ontiveros, Cultural Resource Director	September 3, 2015	The Soboba Band of Luiseño Indians concluded that although the project is outside the existing reservation, the project area does fall within the bounds of the Tribe’s Tribal Traditional Use Areas. However, at this time the Soboba Band does not have any specific concerns regarding known cultural resources in the specified areas that the project encompasses, but it does request that the appropriate consultation continue to take place. In addition, the Tribe requests that approved Native American Monitor(s) be present during any future ground-disturbing proceedings, including surveys and archaeological testing, associated with this project.
Historical Society, Palm Desert	Harry Quinn, Vice President	August 31, 2015	The Historical Society letter describes confusion about Figure 2, Proposed General Plan Use Designations, and enhancing the shopping areas along Highway 111.

Table 1-1, continued

Commenting Agency	Person	Date of Comment Letter	Summary of Comments
Pala Tribal Historic Preservation Office	Shasta C. Gaughen, Tribal Historic Preservation Officer	September 8, 2015	The project is not within the boundaries of the recognized Pala Indian Reservation. The project is also beyond the boundaries of the territory that the Tribe considers its Traditional Use Area (TUA).
Riverside County Airport Land Use Commission (ALUC)	John J. G. Guerin, Principal Planner	September 9, 2015	The ALUC welcomes the opportunity to work directly with the City and encourages the City to endeavor to establish a General Plan that is consistent with the 2004 Bermuda Dunes Airport Land Use Compatibility Plan (ALUCP) and with the Countywide Policies of the 2004 Riverside County Airport Land Use Compatibility Plan policy document.
US Department of Homeland Security; FEMA	Gregor Blackburn, CFM, Branch Chief, Floodplain Management and Insurance Branch	August 24, 2015	FEMA suggests that the City review the current effective countywide Flood Insurance Rate Maps (FIRMs) for the County of Riverside (Community Number 060245) and City of Palm Desert (Community Number 060629) Maps, revised on various dates. Additionally, many National Flood Insurance Program (NFIP) participating communities have adopted floodplain management building requirements that are more restrictive than the minimum federal standards described in Vol. 44 Code of Regulations.
Native American Heritage Commission (NAHC)	Katy Sanchez, Associate Government Program Analyst	August 28, 2015	The NAHC recommends that local governments conduct record searches through the NAHC and California Historic Resources Information System (CHRIS) to determine if any cultural places are located within the area(s) affected by the proposed project. A Sacred Lands File search was not completed. Local governments should be aware that records maintained by the NAHC and CHRIS are not exhaustive, and a negative response to these searches does not preclude the existence of a cultural place. A tribe may be the only source of information regarding the existence of a cultural place.

Table 1-1, continued

Commenting Agency	Person	Date of Comment Letter	Summary of Comments
Southern California Gas Company	Geoffrey Danker, Senior Policy & Planning Advisor	no date	Southern California Gas provided comments regarding technology neutrality, sustainable mobility, and natural gas technologies.
Southern California Association of Governments	Ping Chang, Program Manager II, Land Use and Environmental Planning	September 11, 2015	SCAG recommends that the City review the SCAG 2012 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) Final Program EIR mitigation measures for guidance, as appropriate.
Coachella Valley Water District (CVWD)	Steve Bigley, Director of Environmental Services	September 9, 2015	CVWD submitted four comments regarding listing CVWD’s 5-year Capital Improvement Plan, noting that the district is embarking on a multiyear construction program to construct new infrastructure and facilities to treat chromium-6; is investigating suitable locations for future surface water treatment facilities within the General Plan area; and has adopted and periodically updates the Coachella Valley Water Management Plan (CVWMP). The goal of the CVWMP is to prevent long-term overdraft.
Rincon Band of Luiseno Indians	Jim McPherson, Manager, Rincon Cultural Resources Department	September 8, 2015	The Rincon Band states that the identified location is not within the Luiseño Aboriginal Territory.

Purpose of the Program Environmental Impact Report

According to the State CEQA Guidelines (Section 15168[a]), a state or local agency should prepare a program EIR, rather than a project EIR, when the lead agency proposes the following:

- A series of related actions that are linked geographically;
- Logical parts of a chain of contemplated events, rules, regulations, or plans that govern the conduct of a continuing program; or
- Individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects that can be mitigated in similar ways.

A program EIR “may be prepared on a series of actions that can be characterized as one large project and are related...in connection with the issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program” (State CEQA Guidelines Section 15168[a][3]). This program EIR considers a series of goals, policies and objectives related to implementation of the proposed General Plan update.

As a program EIR, this document focuses on the overall effect of the proposed project. The analyses in this EIR do not examine the effects of site-specific development projects that may occur within the overall umbrella of this program in the future. The nature of general plans is such that many proposed policies are intended to be general, with details to be worked out during implementation. As a result, many of the impacts and mitigation measures in this EIR can be described only in general or qualitative terms. Where possible this EIR does quantify impacts related to transportation, air quality, greenhouse gas emissions, noise, and others, making reasonable assumptions as to the amount, type, and character of the change anticipated with implementation of the proposed project.

Tiering and Streamlining

The City will make use of existing streamlining provided by CEQA, emerging streamlining techniques, such as those related to implementation of the Southern California Association of Governments (SCAG) Sustainable Communities Strategy (Public Resources Code [PRC] Section 21155), and other streamlining techniques that may become available in the future. The City has invested substantial resources in the proposed General Plan update and this EIR, and wishes to promote fiscally prudent use of this effort, to accommodate development consistent with the proposed project.

Tiering refers to a multilevel approach to preparing environmental documents set forth in PRC Section 21083.3 and State CEQA Guidelines Section 15152. The analysis in this program EIR is considered the first tier of environmental review upon which future, project-specific CEQA documents can build. Environmental analysis for future projects consistent with the General Plan can be streamlined to allow subsequent documents to focus on new or site-specific impacts (State CEQA Guidelines Section 15168[d]).

Public Resources Code Section 21083.3 allows a lead agency to narrow the focus of project-level analysis to effects on the environment which are peculiar to the parcel or project (PRC Section 21083.3(a)). The PRC also limits the effects that can be considered peculiar in project-level analysis under the program EIR.

Section 15152 of the CEQA Guidelines provides that where a first-tier EIR has “adequately addressed” the subject of cumulative impacts, such impacts need not be revisited in second- and/or third-tier documents. According to Section 15152(f)(3), significant effects identified in a first-tier EIR are adequately addressed, for purposes of later approvals, if the lead agency determines that such effects have been either been mitigated or avoided as a result of the prior [EIR] and findings adopted in connection with that prior [EIR]; or examined at a sufficient level of detail in the prior [EIR] to enable those effects to be mitigated or avoided by site-specific revisions, the imposition of conditions, or by other means in connection with the approval of the later project.

The Public Resources Code provides streamlining coverage to the City of Palm Desert and other public agencies that have authority to implement the proposed General Plan update. Public agencies can use uniformly applied policies or standards to mitigate effects of future projects, avoiding the need to analyze these effects, unless new information arises that changes the impact analysis (PRC Section 21083.3 (d)). For this reason, this EIR includes references to General Plan update policies and implementation actions, where appropriate, to address environmental impacts. Future CEQA documents can reference the same proposed General Plan update policies and actions, where appropriate, to demonstrate less than significant impacts. The City may consider specific plans, area plans, corridor plans, downtown core area plans, or other documents to implement the proposed General Plan update in a smaller geographic area of the city.

The City acknowledges and intends to make best use of the advantages to the programmatic approach to environmental analysis and reporting in this EIR. As noted in CEQA Guidelines Section 15168(b):

Use of a program EIR can provide the following advantages. The program EIR can:

- (1) Provide an occasion for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action;
- (2) Ensure consideration of cumulative impacts that might be slighted in a case-by-case analysis;
- (3) Avoid duplicative reconsideration of basic policy considerations;
- (4) Allow the Lead Agency to consider broad policy alternatives and program wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts; and
- (5) Allow reduction in paperwork.

University Neighborhood Specific Plan

In conjunction with the preparation of the General Plan, the City has prepared the University Neighborhood Specific Plan (UNSP) that evaluates an area of the City in greater detail. The intent of the Specific Plan and its evaluation in this EIR, is to allow subsequent projects to move forward without the need to prepare substantial environmental analysis pursuant to CEQA Sections 15182 and 15183. As the Specific Plan is implemented, individual projects will be compared to the impacts evaluated in this EIR to determine if any additional analysis is warranted. The evaluation process for individual projects is outlined in CEQA Section 15162. Projects consistent with the Specific Plan would be considered pursuant to CEQA Section 15168(c) that states:

- (c) Use with Later Activities. Subsequent activities in the program must be examined in the light of the program EIR to determine whether an additional environmental document must be prepared.
 - (1) If a later activity would have effects that were not examined in the program EIR, a new Initial Study would need to be prepared leading to either an EIR or a Negative Declaration.
 - (2) If the agency finds that pursuant to Section 15162, no new effects could occur or no new mitigation measures would be required, the agency can approve the activity as being within the scope of the project covered by the program EIR, and no new environmental document would be required.

- (3) An agency shall incorporate feasible mitigation measures and alternatives developed in the program EIR into subsequent actions in the program.
- (4) Where the subsequent activities involve site specific operations, the agency should use a written checklist or similar device to document the evaluation of the site and the activity to determine whether the environmental effects of the operation were covered in the program EIR.
- (5) A program EIR will be most helpful in dealing with subsequent activities if it deals with the effects of the program as specifically and comprehensively as possible. With a good and detailed analysis of the program, many subsequent activities could be found to be within the scope of the project described in the program EIR, and no further environmental documents would be required.

One Eleven Development Code

In conformance with Government Code Section 65860, the proposed project includes the adoption of the One Eleven Development Code that is intended to implement the General Plan vision for the Highway 111 corridor. The Development Code regulates building design and setback consistent with the proposed project.

Lead, Responsible, and Trustee Agencies

Lead Agency

In conformance with Sections 15050 and 15367 of the State CEQA Guidelines, the City of Palm Desert is the lead agency for preparation of the environmental analysis associated with the proposed General Plan update. The City, as the lead agency, is responsible for scoping the analysis, preparing the EIR, and responding to comments received on the Draft EIR.

Responsible Agencies

Responsible agencies are other state and local public agencies that have authority to carry out or approve a project or that are required to approve a portion of the project for which a lead agency is preparing or has prepared an EIR or initial study/negative declaration. Because the proposed project is a General Plan, no agencies other than the City of Palm Desert have approval or permitting authority for the plan's adoption.

Implementation of the General Plan update would involve many additional responsible agencies, depending on the specifics of the nature of subsequent projects. The following are some of the agencies that may be required to act as responsible agencies for subsequent projects:

- California Department of Transportation (Caltrans), including the Division of Aeronautics
- California Air Resources Board
- California Department of Housing and Community Development
- State Office of Historic Preservation
- State Reclamation Board
- California Department of Fish and Wildlife
- State Lands Commission
- California Department of Parks and Recreation
- State Water Resources Control Board

- South Coast Air Quality Management District
- Native American Heritage Commission
- Riverside County Airport Land Use Commission (ALUC)

Trustee Agencies

Trustee agencies under CEQA are public agencies with legal jurisdiction over natural resources that are held in trust for the people of California and that would be affected by a project, whether or not the agencies have authority to approve or implement the project. Development under the proposed General Plan update would not generally affect lands under the jurisdiction of a trustee agency; however, the trustee agencies with jurisdiction that could be affected by subsequent projects include the California Department of Fish and Wildlife, the California State Lands Commission, and the California Department of Parks and Recreation.

Required Permits and Approvals

Project approval requires the following actions by the Palm Desert City Council:

- Certification of this program EIR
- Adoption of a Mitigation Monitoring and Reporting Program
- Adoption of the University Neighborhood Specific Plan
- Adoption of the One Eleven Development Code

The EIR will be used in the consideration of subsequent actions, including:

- Zoning amendments
- Subdivision maps
- Community plans
- Specific plans
- Special planning districts
- Special permits
- Historic preservation actions
- Planning actions
- Infrastructure and public facilities siting and project approvals
- Other related actions

Public Review of Draft EIR and Lead Agency Contact

Upon publication of this Draft EIR, the City will provide public notice of the document's availability for public review and invite comment from the general public, agencies, organizations, and other interested parties. Copies of the Draft EIR will be available on the City's website at <http://www.cityofpalmdesert.org/our-city/general-plan-update> and at the following locations:

City of Palm Desert Planning Department
73-510 Fred Waring Drive
Palm Desert, CA 92260
(open to the public Monday through Friday, 8 a.m. to 5 p.m.)

The public review and comment period is 45 days from **Friday, August 19, 2016**, through **Monday, October 3, 2016**. Written public comments on the Draft EIR must be received no later than 4:00 p.m. on Monday, October 3, 2016. Written comments or questions regarding the Draft EIR should be addressed to:

Ryan Stendell, Director of Community Development
 City of Palm Desert
 73-510 Fred Waring Drive
 Palm Desert, CA 92260
rstendell@cityofpalmdesert.org

Following the public review period, a Final EIR will be prepared. The Final EIR will respond to written comments received during the public review period. The City Council will review and consider the Final EIR prior to their decision to approve, revise, or reject the updated General Plan.

Scope of This Draft EIR

As the lead agency, the City determined that this Draft EIR will address the following technical issue areas:

- Aesthetics
- Agricultural and Forest Resources
- Air Quality
- Greenhouse Gas Emissions and Energy Conservation
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population, Employment, and Housing
- Public Services and Utilities, including Police, Fire, Schools, Parks and Recreation, Other Public Facilities, Water Supply, Wastewater, and Solid Waste
- Transportation

The specific topics evaluated are described in each of the resource chapters presented in Chapter 4.0.

How to Use This Report

This report includes eight principal parts: Executive Summary; Project Description; Environmental Analysis (Impacts and Mitigation Measures); Other CEQA-Required Considerations; Alternatives; Report Preparers; and Appendices.

The **Executive Summary** (Chapter 2) presents an overview of the results and conclusions of the environmental evaluation. This chapter identifies impacts of the proposed project and available mitigation measures.

The **Project Description** (Chapter 3) describes the location of the project, existing conditions in the Planning Area, and the nature and location of specific elements of the proposed General Plan update.

The **Environmental Analysis** (Chapter 4) includes a topic-by-topic analysis of impacts that would or may result from implementation of the proposed project or alternatives. The analysis is organized into 16 resource chapters. Each chapter is organized into major subsections: Environmental Setting and Regulatory Setting (a summary of existing conditions), and Impacts and Mitigation Measures. The Impacts and Mitigation Measures subsection also describes cumulative impacts and mitigation measures. **Appendix 4.0**, the Palm Desert General Plan Update Technical Background Report, provides additional detail regarding the environmental and regulatory setting for each resource chapter.

Other CEQA-Required Considerations (Chapter 5) discusses issues required by CEQA: unavoidable adverse impacts, irreversible environmental changes, growth inducement, and a summary of cumulative impacts.

Alternatives to the Proposed Project (Chapter 6) includes a description of the project alternatives. CEQA requires an EIR to provide adequate information for decision makers to make a reasonable choice between alternatives based on the environmental aspects of the proposed project and alternatives. The impacts of the alternatives are qualitatively compared to those of the proposed project. This chapter also identifies the environmentally superior alternative.

Report Preparers (Chapter 8) includes a list of preparers of the EIR.

The **Appendices** contain a number of reference items, including an extensive Technical Background Report (TBR) that provides support and documentation of the analyses performed for this EIR. The TBR and any other technical studies are included on a CD inserted in the back cover of this document or available on the City's website: (<http://www.cityofpalmdesert.org>).

2. EXECUTIVE SUMMARY

Project Under Review

This program Environmental Impact Report (EIR) considers the environmental impacts likely to occur with adoption and implementation of the Palm Desert General Plan update. This EIR is designed to inform decision-makers in Palm Desert, other responsible and trustee agencies, and the general public of the potential environmental effects of approval and implementation of the proposed project. A detailed description of the proposed project is provided in Chapter 3, Project Description. The City of Palm Desert (City) is the lead agency for environmental review of the proposed project.

The General Plan update defines long-term community goals, decision-making policies, and implementation programs. The General Plan update will focus on key areas of the city, including the Highway 111 corridor/City Center and the areas around the California State University and University of California campuses. The General Plan update will also include goals and policies that provide the City with the tools to seek pedestrian-oriented development patterns to diversify the city's existing primarily automobile-oriented development patterns and realize both a true City Center and a vibrant university campus area.

The General Plan will be prepared in compliance with Government Code Section 65300 that states:

Each planning agency shall prepare and the legislative body of each county and city shall adopt a comprehensive, long-term general plan for the physical development of the county or city, and of any land outside its boundaries which in the planning agency's judgment bears relation to its planning. Chartered cities shall adopt general plans, which contain the mandatory elements specified in Section 65302.

The content of the General Plan update will describe intended development and advised changes to be made to the cityscape and community over the next 25 years. The proposed elements, with their respective goals and policies, address a number of topics and are titled Land Use & Community Character, Mobility, Health & Wellness, Environmental Resources, Safety, Noise, and Public Services & Utilities. The City's Housing Element is current, has been certified by the State, and will not be included as a part of this update.

Summary of Impacts and Mitigation Measures

As shown in Table 2-1, a number of project impacts identified in the EIR were found to be less than significant, requiring no mitigation. These impacts are found in the following sections: Aesthetics; Agricultural and Forestry Resources; Biological Resources; Cultural Resources; Geology and Soils; Hazards and Hazardous Materials; Hydrology and Water Quality; Land Use and Planning; Population, Employment and

Housing; Public Services and Utilities; and Transportation. In the course of drafting the EIR for this project, it was determined that numerous other identified impacts could be reduced to a less-than-significant level with implementation of the proposed mitigation measures described in Chapter 4 of the EIR.

Environmental Impacts and Mitigation

Under CEQA, a significant effect on the environment is defined as a substantial or potentially substantial adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance (CEQA Guidelines, Section 15382). Implementation of the proposed General Plan Update would result in significant impacts to some of these resources, which are analyzed in Chapters 4.1 through 4.15 of this document and summarized in Table 2-1 (provided at the end of this chapter).

This EIR discusses mitigation measures that could be implemented by the City to reduce potential adverse impacts to a level that is considered less than significant. Such mitigation measures are noted in this document and are found in the following sections: Biological Resources, Cultural Resources, Public Services and Utilities and Transportation. However, even with the application of feasible mitigation measures, some impacts could not be reduced to less-than-significant levels. The significant and unavoidable impacts are identified below.

Significant and Unavoidable Impacts

Greenhouse Gas Emissions

4.4-1 Generate greenhouse gas emissions that may have a significant impact on the environment and inhibit the goals of Assembly Bill 32. Adoption and implementation of the proposed General Plan would result in new development and redevelopment of property throughout the planning area, which would result in GHG emissions from construction activities that would contribute to the cumulative effect of climate change.

Transportation

4.15-2 Conflict with Caltrans Performance Standards. Adoption and implementation of the General Plan update would not result in unacceptable performance at the single Caltrans intersection in Palm Desert, but would contribute to unacceptable performance along six freeway segments.

4.15-10 Cumulative Conflict with Caltrans Performance Standards. Adoption and implementation of the General Plan update would not result in unacceptable performance at the single Caltrans intersection in Palm Desert, but would contribute to unacceptable performance along six freeway segments.

Alternatives to the Project

Chapter 6, "Alternatives", of this EIR contains a full description and analysis of four alternatives to the proposed project that are analyzed in this Draft EIR. The alternatives are:

- **Alternative 1, No Project:** This alternative is analyzed in this EIR, as it is required under CEQA Guidelines Section 15126.6(e). According to Section 15126.6(e)(2) of the CEQA Guidelines, the “no project” analysis shall discuss “what is reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.”

This alternative assumes that the proposed project would not be adopted and implemented. Instead, the City would continue to grow and develop consistent with the existing 2004 General Plan. Alternative 1 would continue to allow for growth because there is sufficient vacant land within the Planning Area to accommodate the projected population increase, and no changes to the General Plan, including the Land Use Map, Circulation Diagram, goals, policies, or actions, would occur. Alternative 1 assumes that none of the other proposed General Plan elements would be adopted and that the City would not adopt the 111 Corridor Plan (City Center Area Plan) or the University Neighborhood Specific Plan.

Additionally, as has been done in the past, the City would still update its transportation improvements blueprint and Capital Improvement Program (CIP) based on current available information without adopting a new Mobility Element. The City would pursue the same physical improvements with or without an updated Mobility Element.

- **Alternative 2, Decreased Density:** This alternative assumes that the 111 Corridor Plan will not be adopted and implemented along with the proposed project. The underutilized commercial area along Highway 111 would remain and be developed consistent with the 2004 General Plan land use configuration. In Palm Desert, most portions of Highway 111, including within the 111 Corridor Plan area, have already been improved to the roadway’s ultimate six-lane divided standard. However, circulation, access, parking, landscape, and urban design improvements will not occur. The following list highlights improvements that would not be implemented:
 - Highway 111 – Lane widths will not be reduced to the 10-foot standard, and no bike or pedestrian facilities would be constructed.
 - Highway 111 Boulevard Improvements – Reconfigured frontage roads to improve vehicular circulation and pedestrian and bicyclist comfort and safety would not be constructed along Highway 111.
 - Downtown District – The Downtown Core Overlay District to facilitate mixed-use development fronting Highway 111, El Paseo, and cross streets, as well as more intense development in certain blocks near San Pablo Street, would not occur.
 - San Pablo Avenue – Modifications to the streets to facilitate public and private development based on the proposed street types would not be implemented.

Potential Areas of Controversy

This EIR is a comprehensive document that evaluates each environmental topic that could be applicable to the proposed project. The environmental topics covered, as potential areas of controversy, include: Aesthetics; Agricultural and Forest Resources; Air Quality; Greenhouse Gas Emissions; Biological Resources; Cultural Resources; Geology and Soils; Hazards and Hazardous Materials; Hydrology and Water Quality; Land Use and Planning; Mineral Resources; Noise; Population, Employment, and Housing; Public Services and Utilities; and Transportation.

The City published and circulated a Notice of Preparation (NOP) from August 10, 2015 through September 11, 2015, which was distributed to local, regional, and State agencies and posted on the City website at <http://www.cityofpalmdesert.org>. The NOP and written comments received on the NOP are included in Appendix 1.0-1 of this EIR. Issues raised by reviewing agencies and the public during the scoping process can be found in Table 1-1 Summary of NOP Comment in Section 1.0, Introduction.

Summary Table

Information in **Table 2-1** has been organized to correspond with the environmental issues discussed in Chapter 4. The table is arranged in four columns:

- environmental impacts,
- level of significance prior to mitigation,
- mitigation measures, and
- the level of significance after implementation of mitigation measures.

If an impact is determined to be significant or potentially significant after implementation of the proposed General Plan Update policies and implementation programs, mitigation measures are identified, where appropriate and feasible. More than one mitigation measure may be required to reduce the impact to a less-than-significant level. This EIR assumes that all applicable plans, policies, and regulations would be implemented, including, but not necessarily limited to, the proposed General Plan Update policies and implementation programs, laws, and requirements or recommendations of the City of Palm Desert. Applicable plans, policies, and regulations are identified and described in the Regulatory Setting of each resource chapter and within the relevant impact analysis. Further description of both the existing environmental setting and existing regulatory setting can be found in the Technical Background Report (TBR), which is provided as Appendix A to the EIR. A description of the organization of the environmental analysis, as well as key foundational assumptions regarding the approach to the analysis, is provided in Chapter 4.0, "Introduction to the Analysis."

For a complete description of potential impacts and recommended mitigation measures, please refer to the specific discussions in Chapter 4.

Table 2-1 Summary of Impacts and Mitigation Measures

Impact	Level of Significance		Level of Significance After Mitigation	
	Prior to Mitigation	Mitigation Measure(s)		
4.1 Aesthetics				
Project-Specific Impacts				
4.1-1	Effects on Scenic Vistas. Adoption and implementation of the proposed General Plan would include new development in the planning area, including buildings, structures, paved areas, roadways, utilities, and other improvements, potentially altering scenic vistas in the planning area.	LTS	None required.	N/A
4.1-2	Degrade Existing Visual Character. Adoption and implementation of the proposed General Plan would include new development in the planning area that could substantially degrade the existing visual character within or surrounding the planning area.	LTS	None required.	N/A
4.1-3	Include Sunlight-blocking Structures. Adoption and implementation of the proposed General Plan would include new development in the planning area that could include sunlight-blocking structures near shadow-sensitive uses.	LTS	None required.	N/A
4.1-4	Create New Sources of Light or Glare. Adoption and implementation of the proposed General Plan would include new development in the planning area that would create new sources of light and glare.	LTS	None required.	N/A

Table 2-1, continued

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
Cumulative Impacts			
4.1-5 Cumulative effects on Aesthetics. Adoption and implementation of the General Plan update would not include new development that would substantially degrade scenic vistas from other nearby areas outside the Planning Area, damage scenic resources within a state scenic highway, existing visual character within or surrounding the Planning Area, or create new sources of light or glare. Therefore, cumulative aesthetic impacts would be less than significant.	LCC	None required.	N/A
4.2 Agricultural and Forest Resources			
Project-Specific Impacts			
4.2-1 Convert Farmland or Forestland and Conflict with Existing Zoning for Agricultural or Forest Use. Adoption and implementation of the General Plan update could result in new development and redevelopment of property throughout the Planning Area. There is no Prime Farmland or Farmland of Statewide Importance in the Planning Area. The Planning Area does contain Unique Farmland and Farmland of Local Importance; however, the land is not used as farmland.	NI	None required.	N/A
Cumulative Impacts			
4.2-5 Cumulative Effects on Agricultural and Forest Resources. Adoption and implementation of the General Plan update in addition to anticipated future development in surrounding cities could cause a substantial	LCC	None required.	N/A

Table 2-1, continued

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
<p>change in the significance of agricultural and forest resources as defined in CEQA Guidelines Section 15064.5. The loss of some agricultural resources may be prevented through implementation of CEQA review and surrounding city policies, which would not, however, ensure that these resources can be protected and preserved.</p>			
4.3 Air Quality			
Project-Specific Impacts			
4.3-1	LTS	None required.	N/A
<p>Adoption and implementation of the City of Palm Desert's General Plan does not include any specific development proposals. However, it would allow for new development and redevelopment of property throughout the planning area, which could result in air contaminant emissions associated with construction and operation of future and existing land uses that would affect how the region attains and maintains air quality standards. Adoption and implementation of the City of Palm Desert's General Plan policies and programs would comply with the regional Air Quality Management Plan (AQMP) and would result in a less than significant impact.</p>			
4.3-2	LTS	None required.	N/A
<p>Adoption and implementation of the City of Palm Desert's General Plan does not include any specific development proposals. However, it would allow new development and redevelopment of property throughout the planning area, which would generate air contaminant emissions from short-term</p>			

Table 2-1, continued

Impact	Level of Significance	Mitigation Measure(s)	Level of Significance After Mitigation
<p>construction of planned land uses. These emissions may result in adverse impacts to local air quality, and potential impacts to sensitive receptors, that would be temporary for each construction project, but could occur for multiple projects simultaneously. Adoption and implementation of the City of Palm Desert’s General Plan policies and programs and enforcement of current SCAQMD Rules and Regulations would help reduce short-term emissions and these emissions can be mitigated on a specific development basis. Therefore, construction emissions would result in a less than significant impact.</p>			
<p>4.3-3 Adoption and implementation of the City of Palm Desert’s General Plan would generate air contaminant emissions from long-term operation of planned land uses. These emissions may result in adverse impacts to local air quality, and potential impacts to sensitive receptors. Adoption and implementation of the City of Palm Desert’s General Plan policies and programs and enforcement of current SCAQMD Rules and Regulations would help reduce long-term emissions. Therefore, operational emissions from long-term operation of the City of Palm Desert’s General Plan would result in a less than significant impact.</p>	LTS	None required.	N/A
<p>4.3-4 Adoption and implementation of the City of Palm Desert’s General Plan would generate and contribute vehicle traffic to existing roadways within the city as a result of</p>	LTS	None required.	N/A

Table 2-1, continued

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
proposed land uses, which could contribute to potential CO hot spots. However, traffic volumes anticipated at intersections throughout the city with implementation of the City of Palm Desert's General Plan would not be large enough to trigger a CO hot spot, resulting in a less than significant impact.			
4.3-5 The proposed City of Palm Desert General Plan does not include land uses that would generate substantial odors or expose existing receptors to odors. Should future needs arise, adoption and implementation of City of Palm Desert's General Plan policies and programs and compliance with SCAQMD Rules and Regulations would result in a less than significant impact.	LTS	None required.	N/A
4.4 Greenhouse Gas Emissions			
Project-Specific and Cumulative Impacts			
4.4-1 Generate greenhouse gas emissions that may have a significant impact on the environment and inhibit the goals of Assembly Bill 32. Adoption and implementation of the proposed General Plan would result in new development and redevelopment of property throughout the planning area, which would result in GHG emissions from construction activities that would contribute to the cumulative effect of climate change.	SU	Implementation of programs and policies, derived largely from the General Plan, will reduce potential impacts but would not prevent the generation of GHG emissions. Also, any reductions in emissions would not be to levels considered less than significant, as it is impossible to quantify the effectiveness of each measure at the General Plan level. Individual development projects will be required to undergo project-specific environmental review, and mitigation measures will be identified at that time to reduce any significant impacts. The projects must meet SCAQMD, Palm Desert Strategic Plan, and Palm Desert Environmental Sustainability Plan requirements.	SU
4.4-2 Develop Land Uses and Patterns That Cause Wasteful, Inefficient, and Unnecessary Consumption of Energy or Construct New or Retrofitted Buildings That Would Have	LTS	None required.	N/A

Table 2-1, continued

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation	
Excessive Energy Requirements for Daily Operation. Implementation of the General Plan update will result in energy consumption that would contribute to less than significant impacts on the environment.				
4.5 Biological Resources				
Project-Specific Impacts				
4.5-1 Impacts to Special-Status Species. Adoption and implementation of the General Plan update would result in the loss or degradation of existing populations or suitable habitat of special-status plant and wildlife species. However, adherence with the CVMSHCP and adoption and implementation of General Plan policies and implementation actions would result in a less than significant impact..	LTS	MM 4.5-1	<p>Pertaining to special-status species (identified in Tables 4.5-1, 4.5-2, and 4.5-3) with the potential to occur in the Planning Area that are not part of the CVMSHCP:</p> <p>Prior to the approval of grading plans for development associated with the General Plan update, the project applicant(s) shall retain a qualified biologist to perform a biological resources evaluation for private and public development projects in order to determine the presence/absence of non-covered special-status plant species with the potential to occur in and adjacent to (within 100 feet, where appropriate) the proposed impact area, including construction access routes. It is required that such surveys be conducted at the proper time of year when rare or endangered species are both evident and identifiable.</p> <p>For projects in which special-status species are found, likely to occur, or where the presence of the species can be reasonably inferred, the City shall require feasible mitigation of impacts to ensure that the project does not contribute to the decline of affected special-species populations in the region to the extent that their decline would impact the viability of the regional population. Before the</p>	LTS

Table 2-1, continued

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation	
4.5-2	Impacts to Sensitive Biological Communities or Riparian Habitat. Adoption and implementation of the General Plan update could result in the loss or degradation of riparian habitat or other sensitive natural communities considered sensitive habitats under CEQA. However, adoption and implementation of General Plan update policies and implementation actions would result in a less than significant impact.	LTS	None required.	N/A
4.5-3	Impacts to Jurisdictional Wetlands. Adoption and implementation of the proposed General Plan could result in the loss of jurisdictional	LTS	None required.	N/A

approval of grading plans or any ground-breaking activity for development associated with the General Plan update, the project applicant(s) shall submit a mitigation plan concurrently to the CDFW and the USFWS for review and comment. The plan shall include mitigation measures for the population(s) to be directly affected. The actual level of mitigation may vary depending on the sensitivity of the species, its prevalence in the area, and the current state of knowledge about overall population trends and threats to its survival. The final mitigation strategy for directly impacted plant species shall be determined by the CDFW and the USFWS through the mitigation plan approval process.

Timing/Implementation: Prior to the approval of grading plans

Enforcement/Monitoring: City of Palm Desert Planning Department

Table 2-1, continued

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
waters of the United States and waters of the State.			
4.5-4 Impacts to the Movement of Native Resident or Migratory Fish or Wildlife Species or Within an Established Migratory Corridor. Adoption and implementation of the proposed General Plan could impede wildlife movement within the planning area.	LTS	None required.	N/A
4.5-5 Conflict with Any Local Policies or Ordinances Protecting Biological Resources, such as a Tree Preservation Policy or Ordinance. Implementation of the General Plan update will not result in a conflict with a local policy or ordinance protecting biological resources, including but not limited to Title 24, Environment and Conservation, of the Palm Desert Municipal Code.	NI	None required.	N/A
4.5-6 Conflict with an Adopted Plan. Implementation of the proposed project could conflict with provisions of the CVMSHCP. However, compliance with provisions in the CVMSHCP, including payment of mitigation fees would result in less than significant impacts.	LTS	None required.	N/A
Cumulative Impacts			
4.5-7 Cumulative Impacts to Biological Resources. Implementation of the General Plan update, in combination with existing, approved, proposed, and reasonably foreseeable development in the region, will result in the	LCC	None required.	N/A

Table 2-1, continued

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
conversion of habitat and impact biological resources.			
4.6 Cultural Resources			
Project-Specific Impacts			
4.6-1	LTS	None required.	N/A
Substantial Change in the Significance of a Historical Resource. Adoption and implementation of the General Plan update could result in new development and redevelopment of property throughout the Planning Area, which could cause a substantial change in the significance of a historical resource as defined in State CEQA Guidelines Section 15064.5.			
4.6-2	PS	MM 4.6-2a	For future projects that require excavation activity (e.g., clearing/grubbing, grading, trenching, or boring) into native soil and that have the potential to exhibit native ground surface within or in the immediate vicinity of the excavation footprint, project applicants an archaeological study (Phase I Assessment) shall be required.
Substantial Change in the Significance of a Unique Archaeological Resource. Adoption and implementation of the General Plan update could result in new development and redevelopment of previously undisturbed land throughout the Planning Area, which could cause a substantial change in the significance of a unique archaeological resource as defined in CEQA Guidelines Section 15064.5			<i>Timing/Implementation:</i> <i>During the environmental review process</i>
		MM 4.6-2b	If resources are identified, they shall be evaluated for their eligibility for listing in the California Register of Historical Resources, the National Register of Historic Places (if applicable), and/or a local listing and to determine whether the resource qualifies as a unique archaeological resource pursuant to CEQA (Phase II Assessment). Methodologies for evaluating a
			<i>Enforcement/Monitoring:</i> <i>City of Palm Desert Planning Department</i>

Table 2-1, continued

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
		<p>resource can include, but are not limited to, subsurface archaeological test excavations, additional background research, and coordination with Native Americans and other interested individuals in the community.</p> <p><i>Timing/Implementation:</i> <i>During the environmental review process</i></p> <p><i>Enforcement/Monitoring:</i> <i>City of Palm Desert Planning Department</i></p>	
		<p>MM 4.6-2c</p> <p>If the resources are determined eligible for listing in the California Register of Historical Resources, appropriate mitigation shall be developed and implemented to mitigate impacts to the resource. If resource avoidance measures, such as resource “capping” (covering a resource with a layer of fill soils before building on the resource) or incorporating a resource into a park plan or open space, are deemed not feasible, additional subsurface archaeological excavations (i.e., data recovery) that serve to recover significant archaeological resources before they are damaged or destroyed by the proposed development shall be implemented (Phase III Assessment). Documentation (technical reports and California Department of Parks and Recreation Site Forms) and recovered materials (artifacts and other specimens) shall be curated at a suitable repository and/or museum for future study and research.</p> <p><i>Timing/Implementation:</i> <i>During the environmental review process</i></p> <p><i>Enforcement/Monitoring:</i> <i>City of Palm Desert Planning Department</i></p>	

Table 2-1, continued

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation	
4.6-3	Disturbance of Human Remains. Adoption and implementation of the General Plan update could result in new development and redevelopment of previously undisturbed land throughout the Planning Area, which could disturb human remains.	LTS	None required.	N/A
4.6-4	Substantial Change in the Significance of a Tribal Cultural Resource. Adoption and implementation of the General Plan update could result in new development and redevelopment of previously undisturbed land throughout the Planning Area, which could cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074.	PS	Implement mitigation measures MM 4.6-2a through MM 4.6-2d .	LTS

MM 4.6-2d

Archaeological construction monitoring and construction personnel awareness training shall be conducted for development proposals that have a high potential to encounter previously unknown buried resources during construction. If resources are encountered during construction, appropriate treatment measures shall be developed to preserve the resource. If it is not feasible to preserve the resource, a program to remove or recover the resource from the construction site shall be implemented.

Timing/Implementation:

During grading and construction

Enforcement/Monitoring:

City of Palm Desert Planning Department

Table 2-1, continued

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
Cumulative Impacts			
4.6-5	LCC	None required.	LCC
Cumulative Effects on Historical Resources. Adoption and implementation of the General Plan update in addition to anticipated future development in surrounding cities could cause a substantial change in the significance of historical resources as defined in CEQA Guidelines Section 15064.5.			
4.6-6	CC	Implement mitigation measures MM 4.6-2a through MM 4.6-2d .	LCC
Cumulative Effects on Archaeological Resources. Adoption and implementation of the General Plan Update in addition to anticipated future development in surrounding cities could cause a substantial change in the significance of an archaeological resource as defined in CEQA Guidelines Section 15064.5.			
4.6-7	LCC	None required.	N/A
Cumulative Effects on Human Remains. Adoption and implementation of the General Plan update in addition to anticipated regional growth would not result in cumulative impacts to human remains because these impacts are inherently site specific.			

Table 2-1, continued

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
4.7 Geology and Soils			
Project-Specific Impacts			
4.7-1 Impacts Associated with Fault Rupture and Seismic Hazards. Subsequent land use activities associated with adoption and implementation of the General Plan update could result in the exposure of more people, structures, and infrastructure to seismic hazards.	LTS	None required.	N/A
4.7-2 Soil Erosion or Loss of Topsoil. Implementation of the General Plan update could result in construction and grading activities that could expose topsoil to increased potential for soil erosion.	LTS	None required.	N/A
4.7-3 Unstable and Expansive Soils. The General Plan update would not allow development on a geologic unit or soil that is unstable and therefore would not create substantial risks to life and property.	LTS	None required.	N/A
4.7-4 Impacts to Unique Paleontological Resources. Earthmoving and excavation activities associated with adoption and implementation of the General Plan update could damage previously unknown unique paleontological resources. However, CEQA Guidelines Section 15064.5(f) and proposed General Plan policies would ensure that paleontological resources are not adversely impacted by future development under the proposed General Plan.	LTS	None required.	N/A

Table 2-1, continued

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
Cumulative Impacts			
4.7-5	LCC	None required.	N/A
Cumulative Geologic and Soil Hazards. Subsequent land use activities associated with adoption and implementation of the General Plan update, in combination with other existing, planned, proposed, and reasonably foreseeable development in the region, may result in cumulative geologic and soil hazards.			
4.7-6	LCC	None required.	N/A
Cumulative Paleontological Impacts. Adoption and implementation of the General Plan update, in addition to existing, approved, proposed, and reasonably foreseeable development in the region, could result in cumulative impacts to paleontological resources in the region.			
4.8 Hazards and Hazardous Materials			
Project-Specific Impacts			
4.8-1	LTS	None required.	N/A
Transport, Use, or Disposal of Hazardous Materials. Adoption and implementation of the General Plan update would result in an increase in the routine transport, use, and/or disposal of hazardous materials, which could result in the exposure of the public to such materials through either routine use or accidental release.			

Table 2-1, continued

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
4.8-2 Release of Hazardous Materials into the Environment. Adoption and implementation of the General Plan update would result in development that could lead to upset and/or accidental conditions involving the release of hazardous materials into the environment. However, compliance with existing federal and state regulations would reduce risks of accidental conditions.	LTS	None required.	N/A
4.8-3 Emission or Handling of Hazardous or Acutely Hazardous Materials, Substances, or Waste within One-Quarter Mile of an Existing or Proposed School. Adoption and implementation of the General Plan update could result in development of uses that would emit or handle hazardous waste in proximity to new or existing schools.	LTS	None required.	N/A
4.8-4 Safety Hazards to People Residing or Working Within 2 Miles of Bermuda Dunes Airport. Adoption and implementation of the General Plan update could result in an increase of people residing or working within 2 miles of Bermuda Dunes Airport, which could result in a safety hazard. However, implementation of the General Plan policies and action would ensure site-specific constraints are taken into consideration during development.	LTS	None required.	N/A
4.9-5 Interference with an Adopted Emergency Response Plan. Adoption and implementation of the General Plan update would create additional traffic and future land uses requiring evacuation in the event	LTS	None required.	N/A

Table 2-1, continued

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
of an emergency. However, implementation of the General Plan policies and actions would ensure conformance with countywide emergency response programs and continued cooperation with emergency response service providers.			
4.8-6 Exposure of Structures to Urban and Wildland Fire. Adoption and implementation of the General Plan update would increase population located in proximity to wildlands, which would increase the risk from potential wildland fires. However, implementation of the General Plan actions would reduce the potential for exposure of people or structures to wildland fires.	LTS	None required.	N/A
Cumulative Impacts			
4.8-7 Cumulative Hazards and Hazardous Material Impacts. Implementation of the General Plan update, in addition to existing, approved, proposed, and other reasonably foreseeable projects, would not result in cumulative hazardous material and human health risk impacts.	LCC	None required.	N/A
4.9 Hydrology and Water Quality			
Project-Specific Impacts			
4.9-1 Violate Water Quality Standards and Waste Discharge Requirements. Adoption and implementation of the General Plan update would potentially increase the amount of impervious surface in the Planning Area, thereby increasing the total volume and peak	LTS	None required.	N/A

Table 2-1, continued

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
discharge rate of stormwater runoff and associated pollutants. Construction activities resulting from implementation of the General Plan update could also increase the amount of sediments and pollutants in stormwater runoff.			
4.9-2 Deplete Groundwater Supplies or Interfere with Groundwater Recharge. Adoption and implementation of the General Plan update would potentially increase the amount of impervious surface in the planning area, thereby decreasing the area available to provide groundwater recharge.	LTS	None required.	N/A
4.9-3 Alter the Existing Drainage Pattern of the Site or Area so as to Result in Substantial On- or Off-Site Erosion or Siltation. Adoption and implementation of the General Plan update could increase the amount of impervious surface in the Planning Area, thereby increasing the total volume and peak discharge rate of stormwater runoff and the potential for erosion and sedimentation.	LTS	None required.	N/A
4.9-4 Substantially Alter the Existing Drainage Pattern of the Site or Area so as to Result in On- or Off-Site Flooding. Adoption and implementation of General Plan update could increase the amount of impervious surface in the planning area, thereby increasing the total volume and peak discharge rate of stormwater runoff and the potential for flooding.	LTS	None required.	N/A

Table 2-1, continued

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
4.9-5 Create or Contribute Runoff Water Exceeding the Capacity of Existing or Planned Stormwater Drainage Systems or Providing Substantial Additional Sources of Polluted Runoff. Adoption and implementation of General Plan update would increase the amount of impervious surface in the Planning Area, thereby increasing the total volume of stormwater runoff that could exceed the capacity of stormwater drainage systems or create substantial additional sources of polluted runoff.	LTS	None required.	N/A
4.9-6 Substantially Degrade Water Quality. Adoption and implementation of the General Plan update could result in development that would increase pollutants and cause degradation of water quality during construction activities or long-term operation.	LTS	None required.	N/A
4.9-7 Place Housing within a 100-Year Flood Hazard Area. Adoption and implementation of General Plan update would not place housing within a 100-year flood hazard area.	LTS	None required.	N/A
4.9-8 Place within a 100-Year Flood Hazard Area Structures That Would Impede or Redirect Flood Flows. Adoption and implementation of the General Plan update could allow development or expansion of facilities to support coastal access in the 100-year flood hazard area.	LTS	None required.	N/A

Table 2-1, continued

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
4.9-9 Expose People or Structures to a Significant Risk of Loss, Injury, or Death Involving Flooding. Adoption and implementation of the General Plan update would not allow habitable development in locations designated as 100-year flood hazard areas, which generally precludes loss, injury, or death from flooding, including flooding from the failure of a dam or levee.	LTS	None required.	N/A
4.9-10 Inundation by Seiche, Tsunami, or Mudflow. Adoption and implementation of General Plan update would allow continued development in locations that may be subject to inundation by tsunami or mudflow.	LTS	None required.	N/A
Cumulative Impacts			
4.9-11 Cumulative Effects on Hydrology and Water Quality. Adoption and implementation of the General Plan update in addition to potential regional growth would increase the amount of impervious surface in the watershed, alter drainage conditions, rates, volumes, and water quality, which could result in potential erosion, flooding, and water quality impacts in the overall watershed.	LCC	None required.	N/A
4.10 Land Use and Planning			
Project-Specific Impacts			
4.10-1 Physically Divide an Established Community. Adoption and implementation of the General Plan update would not result in the division	NI	None required.	N/A

Table 2-1, continued

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
of an existing community, nor would it result in substantial land use compatibility issues.			
4.10-2 Conflict with an Applicable Plan, Policy, or Regulation. Adoption and implementation of the General Plan update in addition to anticipated local and regional growth would increase the number of housing units, nonresidential square footage, and the population in Palm Desert in combination with transportation improvements.	LTS	None required.	N/A
Cumulative Impacts			
4.10-3 Cumulative Land Use. Implementation of the General Plan update, in addition to existing, proposed, approved, and reasonably foreseeable development in the region, would not contribute to cumulative land use impacts associated with the division of an established community or conflicts with land use plans and regulations that provide environmental protection.	LCC	None required.	N/A
4.11 Mineral Resources			
4.11-1 Loss of Availability of Mineral Resources. Adoption and implementation of the General Plan update would not result in the loss of availability of a known mineral resource or of a locally important mineral resource recovery site. Local policies would ensure a less than significant impact to mineral resources.	LTS	None required.	N/A

Table 2-1, continued

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation	
4.13 Noise				
Project-Specific Impacts				
<p>4.12-1 Short-term construction noise levels associated with implementation of the General Plan could exceed applicable City of Palm Desert standards at nearby noise-sensitive receptors. In addition, if construction activities were to occur during more noise-sensitive hours (outside the construction hours defined in PDMC Section 9.24.070), construction noise levels could also create a substantial temporary increase in ambient noise levels creating a potentially significant impact.</p>	PS	NOI-1	<p>Construction Noise Impacts. Construction resulting from future developments consistent with the General Plan update would potentially result in higher noise levels at nearby sensitive receptors. The following best management practices (BMPs) would reduce short-term construction-related noise impacts:</p> <p>Notification shall be mailed to owners and occupants of all developed land uses immediately bordering the construction site, and posted directly across the street from the construction site, providing a schedule for major construction activities that will occur for the duration of the construction period. In addition, the notification will include the identification of and contact number for a community liaison and a designated construction manager who would be available on-site to monitor construction activities. The construction manager will be located at the on-site construction office during construction hours for the duration of all construction activities. Contact information for the community liaison and the construction manager will be located at the construction office, City Hall, and the police department.</p> <p>During all construction site excavation and grading, the construction contractor shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers’ standards.</p>	LTS

Table 2-1, continued

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation	
4.12-2	Development facilitated by the General Plan would increase traffic and associated noise levels along area roadways in and around the City, which would expose existing and planned receptors to noise level increases. However, implementation of City of Palm Desert General Plan policies and programs would improve traffic flow, roadway design, and site design to reduce overall traffic noise within the city. Based on traffic modeling conducted for City of Palm Desert General	LTS	None required.	N/A

The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the construction site.

For off road construction the contractor shall utilize grading and excavation equipment that is certified to generate noise levels of no more than 85 dBA at a distance of 50 feet.

All equipment designed for use on public roads shall be properly maintained with operating mufflers and air intake silencers as effective as those installed by the original manufacturer.

The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receptors nearest the construction site during all project construction.

Timing/Implementation: Prior to any earth movement permit or activity

Enforcement/Monitoring: City Planning and Public Works Departments

Table 2-1, continued

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
Plan, this impact would be less than significant.			
4.12-3 Implementation of the City of Palm Desert General Plan would result in increases in on-site stationary-source noise levels associated with the proposed residential, commercial, mixed-use, office/industrial, park, and educational land uses. These stationary noise sources could exceed applicable hourly and maximum noise standards and result in a substantial increase in ambient noise levels. However, adherence to and implementation of General Plan policies and programs and adherence to the City's Noise Control Ordinance would result in a less-than-significant impact.	LTS	None required.	N/A
4.12-4 Implementation of the City of Palm Desert General Plan could result in increased exposure of sensitive receptors to rail-generated noise. However, General Plan policies and programs would reduce potential noise exposure. Therefore, this impact is less than significant.	LTS	None required.	N/A
4.12-5 The City of Palm Desert General Plan implementation could result in increased exposure of sensitive receptors to aircraft generated noise. However, City of Palm Desert General Plan policies and programs would reduce potential noise exposure; this impact would be less than significant.	LTS	None required.	N/A

Table 2-1, continued

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
4.12-6 Sensitive receptors could be subjected to operational and construction vibration levels in excess of established thresholds. However, adherence to and implementation of General Plan policies and programs and adherence to the City’s Municipal Code (9.24.070 Construction Activities) would result in a less-than-significant impact.	LTS	None required.	N/A
4.13 Population, Employment and Housing			
Project-Specific Impacts			
4.13-1 Induce Substantial Population Growth. Implementation of the General Plan update would guide future development and reuse projects in the city in a manner that would not substantially increase population in Palm Desert.	LTS	None available.	N/A
4.13-2 Displace People or Housing. Subsequent land use activities associated with implementation of the General Plan update would not result in the displacement of substantial numbers of housing or persons.	LTS	None required.	N/A
Cumulative Impacts			
4.13-3 Cumulative Effects on Population, Employment and Housing. Subsequent land use activities associated with implementation of the General Plan update, in addition to existing, approved, proposed, and reasonably foreseeable development, could result in a cumulative increase in population and housing growth in Palm Desert as well as in the surrounding region,	LCC	None available.	N/A

Table 2-1, continued

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
along with associated environmental impacts. Development would not displace people or housing necessitating the construction of housing elsewhere. This cumulative increase in population and housing is consistent with that projected by SCAG.			
4.14 Public Services and Utilities			
Project-Specific Impacts			
4.14.1-1 Impacts on Fire Protection. Implementation of the proposed General Plan update would result in an increase in population in the city, which would increase demand for fire protection services and potentially result in the need for additional and/or expanded fire protection facilities.	LTS	None required.	N/A
4.14.2-1 Increased Demand for Law Enforcement Services. Implementation of the General Plan Update would result in an increase in population in the planning area, which would increase demand for police protection services, resulting in the need for additional and/or expanded police protection facilities.	LTS	None required.	N/A
4.14.3-1 Demand for Additional School Facilities. Implementation of the General Plan Update would result in an increase in population in the planning area, resulting in the need for additional and/or expanded school facilities. However, existing laws and regulations would require funding for the provision or expansion of new school facilities to offset	LTS	None required.	N/A

Table 2-1, continued

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
impacts from new residential or commercial/industrial development.			
4.14.4-1 Demand for Additional Park Facilities. Implementation of the General Plan Update would result in an increase in population in the planning area, which would increase demand for parks and recreation services, resulting in the need for additional and/or expanded parks and recreation facilities.	LTS	None required.	N/A
4.14.4-1a Demand for Expansion Causing an Adverse Physical Effect on the Environment. Implementation of the General Plan update would result in an increase in population in the Planning Area, which would increase demand for parks and recreation services, resulting in the need for additional and/or expanded parks and recreation facilities. However, General Plan update policies and implementation actions would require the provision of new parks and recreation facilities and ongoing parkland maintenance to prevent an adverse physical effect on the environment.	LTS	None required.	N/A
4.14.5-1 Demand for Additional Library Facilities. Implementation of the General Plan Update would result in an increase in population in the planning area, which would increase the demand for library services.	LTS	None required.	N/A
4.14.6-1 Demand for Wastewater Treatment. Implementation of the General Plan Update would result in an increase in population in the planning area, which would increase the	LTS	None required.	N/A

Table 2-1, continued

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
amount of wastewater treated by the Coachella Valley Water District.			
4.14.6-2 Demand for New or Expanded Water or Wastewater Treatment Facilities. Implementation of the General Plan Update would result in the need for additional water and wastewater treatment.	LTS	None required.	N/A
4.14.6-3 Demand for Stormwater Drainage Facilities. Implementation of the General Plan Update would result in redevelopment in the planning area but would generally not increase the amount of impervious surface. Adoption and implementation of the General Plan Update policies and implementation actions would direct construction of development projects to include on-site drainage improvements, which would reduce the impact on existing stormwater drainage facilities.	LTS	None required.	N/A
4.14.6-4 Demand for Water Supplies. Implementation of the General Plan Update would result in the need for additional water supply. The increased population growth projected from implementation of the General Plan Update would be less than that anticipated by the urban water management plans of water suppliers, and no new entitlements would be needed.	LTS	None available.	N/A
4.14.7-1 Demand for Solid Waste Disposal and Compliance with federal, state, and local statutes and regulations related to solid waste. Implementation of the General Plan	LTS	None required.	N/A

Table 2-1, continued

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
Update would result in additional solid waste disposal needs. Adequate capacity exists in the landfills receiving waste generated in Palm Desert to accommodate these additional needs.			
Cumulative Impacts			
4.14.1-2 Cumulative Impacts on Fire Protection. Implementation of the General Plan Update, in combination with other existing, planned, proposed, approved, and reasonably foreseeable development in Palm Desert, would increase the demand for fire protection and emergency medical services and thus require additional staffing, equipment, and related facilities under cumulative conditions.	LCC	None required.	N/A
4.14.2-2 Cumulative Demand for Law Enforcement Services. Implementation of the General Plan Update, in combination with other existing, planned, proposed, approved, and reasonably foreseeable development in the PDPD service area, would not increase the demand for law enforcement services and thus would not require additional staffing, equipment, and facilities, the construction of which could cause significant environmental impacts.	LCC	None required.	N/A

Table 2-1, continued

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
4.14.3-2 Cumulative Schools Impacts. Population growth associated with implementation of the General Plan Update, in combination with other existing, planned, proposed, approved, and reasonably foreseeable development in the cumulative setting, would result in a cumulative increase in student enrollment.	LCC	None required.	N/A
4.14.4-2 Cumulative Parks and Recreation Demands. Implementation of the General Plan Update, along with other existing, planned, proposed, approved, and reasonably foreseeable development, would increase the use of existing parks and would require additional park and recreation facilities in the cumulative setting, the provision of which could have an adverse physical effect on the environment.	LCC	None required.	N/A
4.14.5-2 Cumulative Library Impacts. Population growth associated with implementation of the General Plan Update, in combination with other existing, planned, proposed, approved, and reasonably foreseeable development in the cumulative setting, would not result in a cumulative increase in demand for library services.	LCC	None required.	N/A

Table 2-1, continued

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation	
4.14.6-5 Implementation of the proposed General Plan Update, in combination with other existing, planned, proposed, approved, and reasonably foreseeable development in Palm Desert, would increase the demand for water supply. The provision of associated facilities could result in environmental impacts.	LCC	None required.	N/A	
4.14.7-2 Implementation of the General Plan Update, in combination with other existing, planned, proposed, approved, and reasonably foreseeable development in Palm Desert, would increase the demand for solid waste facilities. The provision of these facilities could result in environmental impacts.	LCC	None required.	N/A	
4.15 Transportation				
Project-Specific Impacts				
4.15-1 LOS Performance Standard. Adoption and implementation of the General Plan update would result in 2 of 39 intersections and 1 of 40 roadway segments operating below the LOS D standard.	PS	MM 4.15-1a	<p>The City of Palm Desert shall implement Policy 1.7 (System Efficiency) and optimize traffic signals at the intersections identified in this report that are under City jurisdiction.</p> <p>Two City intersections operate below the acceptable LOS D in the PM peak hour (Washington Street & Country Club Drive and Monterey Avenue & Dinah Shore Drive) in the Buildout (2035) scenario. Optimization of the cycle length to 130 seconds at Washington Street and Country Club Drive (and the coordinated intersections along Washington Street) would result in acceptable operations. Optimization of the cycle length to 130 seconds at Monterey Avenue & Dinah Shore Drive (and the coordinated intersections along Monterey Avenue) would result in acceptable operations when implemented in</p>	LTS

Table 2-1, continued

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
		<p>MM 4.15-1b</p>	<p>combination with the identified improvements in mitigation measure MM 4.15-1b. Mitigated level of service calculation worksheets are included in Appendix F.</p> <p><i>Timing/Implementation: The City of Palm Desert should monitor operations at these facilities. Mitigation measures should be implemented when operations at these intersections reach unacceptable levels. Signal timing updates are considered standard maintenance at traffic signals and will be implemented by the Department of Public Works.</i></p> <p><i>Enforcement/Monitoring: Public Works Department</i></p> <p>The City of Palm Desert shall implement the following intersection and roadway improvements:</p> <p><u>Monterey Avenue & Dinah Shore Drive</u>: Provide an additional (third) westbound through lane and restripe the eastbound right turn lane to a shared through-right lane, which would necessitate a third receiving lane on the intersections eastern leg. This mitigation measure requires reclassifying Dinah Shore Drive (between the western city boundary and Portola Avenue) as a six-lane vehicular-oriented arterial in the proposed circulation network in the General Plan Mobility Element. Additionally, right-of-way acquisition may be required.</p> <p><u>Washington Street (north of Country Club Drive)</u>: Provide an additional (fourth) southbound lane between the I-10 eastbound ramps and the Country Club Drive intersections. Suitable right-of-way can be acquired from the existing 23-foot median lane. The additional lane would transition directly to the outer</p>

Table 2-1, continued

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
		<p>southbound left turn lane at the intersection of Washington Street and Country Club Drive.</p> <p><i>Timing/Implementation: The City of Palm Desert should monitor operations at these facilities. Mitigation measures should be implemented by the Department of Public Works when operations at these facilities reach unacceptable levels.</i></p> <p><i>Enforcement/Monitoring: Engineering Department</i></p>	
<p>4.15-2 Conflict with Caltrans Performance Standards. Adoption and implementation of the General Plan update would not result in unacceptable performance at the single Caltrans intersection in Palm Desert, but would contribute to unacceptable performance along six freeway segments.</p>	<p>PS</p>	<p>The segments of Interstate 10 forming the northern city boundary will perform unacceptably in the Buildout (2035) scenario. Mitigating the identified impacts to these segments would require a complete reconstruction of the freeway and additional travel lanes. Since freeways are an interconnected system, it would not be possible, nor effective, to provide isolated spot improvements of one segment of the freeway where deficient operations are observed.</p>	<p>SU</p>
<p>4.15-3 Conflict with Riverside County Congestion Management Program. Adoption and implementation of the General Plan update would maintain the level of service standard for CMP intersections and roadways.</p>	<p>LTS</p>	<p>None required.</p>	<p>N/A</p>
<p>4.15-4 Conflict with Performance Standards of Adjacent Jurisdictions. Adoption and implementation of the General Plan update would maintain the level of service standards for facilities in adjacent jurisdictions (Rancho Mirage, Indian Wells, La Quinta, and Riverside County).</p>	<p>LTS</p>	<p>None required.</p>	<p>N/A</p>

Table 2-1, continued

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
4.15-5 Air Traffic Patterns. Adoption and implementation of the General Plan update would not modify the planning or operations of Palm Springs International Airport or introduce land use patterns that may cause substantial safety risks to or from air operations.	LTS	None required.	N/A
4.15-6 Design Hazards. Adoption and implementation of the General Plan update would not increase hazards due to design or incompatible uses.	LTS	None required.	N/A
4.15-7 Result in Inadequate Emergency Access. Adoption and implementation of policies in the updated General Plan would reduce emergency access program-level impacts to a less than significant level.	LTS	None required.	N/A
4.15-8 Public Transit, Bicycle, and Pedestrian Facilities. Adoption and implementation of the General Plan update would support the maintenance and expansion of transit, bicycle, and pedestrian facilities consistent with adopted local and regional plans.	LTS	None required.	N/A
Cumulative Impacts			
4.15-9 Cumulative LOS Performance Standard. Adoption and implementation of the General Plan update would result in 2 of 39 intersections and 1 of 40 roadway segments operating below the LOS D standard.	CC	Implement mitigation measures MM 4.15-1a and MM 4.15-1b .	LCC

Table 2-1, continued

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
4.15-10 Cumulative Conflict with Caltrans Performance Standards. Adoption and implementation of the General Plan update would not result in unacceptable performance at the single Caltrans intersection in Palm Desert, but would contribute to unacceptable performance along six freeway segments.	CC	Mitigating the identified impacts to the I-10 segments would require a complete reconstruction of the freeway and additional travel lanes. Since freeways are an interconnected system, it would not be possible, nor effective, to provide isolated spot improvements of one segment of the freeway where deficient operations are observed. Furthermore, the facilities are not controlled by the City of Palm Desert	SU
4.15-11 Cumulative Conflict with Riverside County Congestion Management Program. Adoption and implementation of the General Plan update in addition to anticipated cumulative growth in the region would maintain the level of service standard for CMP intersections and roadways.	LCC	None required.	N/A
4.15-12 Cumulative Conflict with Performance Standards of Adjacent Jurisdictions. Adoption and implementation of the General Plan update in addition to anticipated cumulative growth in the region would maintain the level of service standards for facilities in adjacent jurisdictions (Rancho Mirage, Indian Wells, La Quinta, and Riverside County).	LCC	None required.	N/A
4.15-13 Cumulative Air Traffic Patterns. Adoption and implementation of the General Plan updated in addition to anticipated cumulative growth in the region would not modify the planning or operations of Palm Springs International Airport or introduce land use patterns that may cause substantial safety risks to or from air operations.	LCC	None required.	N/A

Table 2-1, continued

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
4.15-14 Cumulative Design Hazards. Adoption and implementation of the General Plan update in addition to anticipated regional growth would not increase hazards due to design or incompatible uses.	LCC	None required.	N/A
4.15-15 Cumulatively Result in Inadequate Emergency Access. Adoption and implementation of the General Plan update policies in addition to anticipated regional growth would not result in inadequate emergency access.	LCC	None required.	N/A
4.15-16 Cumulative Impacts to Public Transit, Bicycle, and Pedestrian Facilities. The updated General Plan supports the maintenance and expansion of transit, bicycle, and pedestrian facilities consistent with adopted local and regional plans.	LCC	None required.	N/A
LTS = Less Than Significant PS = Potentially Significant S = Significant SU = Significant and Unavoidable N/A = Not Applicable LCC= Less Than Cumulatively Considerable CC=Cumulatively Considerable			

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3. PROJECT DESCRIPTION

Project Summary

The City of Palm Desert’s General Plan update encompasses future community development plans with a planning horizon of 2040.

The General Plan will identify long-term goals, provide a basis for decision-making, provide citizens a forum for input on their community’s direction, and inform citizens, developers, decision-makers, and other cities of the ground rules for development in Palm Desert. To provide greater specificity on where and how this growth will occur, the project also includes a Specific Plan for the development of a walkable, mixed-use neighborhood west of the California State University, San Bernardino-Palm Desert and University of California Riverside Palm-Desert Campuses. The project also includes detailed policy guidance, development standards, and design guidelines for the transformation of the Highway 111 corridor into a walkable, mixed-use City Center. The project’s end result will be a comprehensive report on goals and policies that will enhance the overall well-being for all Palm Desert residents, business owners, and visitors.

Background

In 2013, more than 100 city residents, business owners, and policymakers came together to develop a 20-year strategic plan for Palm Desert. The yearlong process and resulting document, the 2013–2033 Strategic Plan, *Envision Palm Desert → Forward Together*, laid the groundwork and direction for this General Plan update. The community members developed an overall community vision, priorities, strategies, action steps, and measures of success, many of which directly and indirectly pertain to the city’s built environment. Several strategies were very specific about transforming parts of the community, including outcomes such as creating an authentic City Center along the Highway 111 corridor, improving access throughout the community, and leveraging the universities for economic development. As such, the Strategic Plan recommended updating the General Plan, including a detailed plan for the transformation of the Highway 111 corridor, as an implementation mechanism for achieving the 2013 Strategic Plan vision.

Envision Palm Desert → Forward Together identifies nine Strategic Results Areas ranging from arts and culture to transportation. Each sets out mini-visions, priorities, strategies, action plans, and measures of success. Below are highlights from all nine. These mini vision statements have helped guide this General Plan update and will continue to serve to guide City decision-making.

Arts & Culture: The plan envisions Palm Desert as the cultural core of the Coachella Valley. Priorities are to assess the current arts and cultural landscape, explore the viability of creating an arts and culture district, and develop secure and sustainable funding for arts and culture.

Economic Development: The vision builds on Palm Desert’s strengths in business, education, arts, and tourism to provide an inviting economic climate offering lifestyle, education, and investment opportunities. Priorities are to increase job and business opportunities, expand quality education to ensure that residents are prepared to serve in a workforce of the future, create and attract entertainment and events that grow the economy and improve the quality of life, and enhance and raise awareness of business-friendly services to retain and attract business.

Education: The Strategic Plan envisions an education destination offering world-class programs providing lifelong learning opportunities and an engaged and informed community. Priorities are to create and support a community-based education coalition that will focus on graduation rates, attract and retain students of all ages by providing outstanding academic and cultural programs, and create community awareness of, and support for, the building blocks of student and career success.

Energy & Sustainability: The vision is to be a responsible steward of the city’s natural resources. Priorities are to reduce per-capita consumption of energy and water, promote greater use of sustainable materials with an eye upon the needs of future generations, encourage all new construction to be net zero energy in design and exceed the Coachella Valley Water District’s efficiency standards, and encourage property owners to reduce energy and water consumption.

Land Use, Housing & Open Space: The vision is a well-planned and developed city with a vibrant city core; natural open space; and housing, business, and community revitalization opportunities. Priorities are to enhance Palm Desert as a first-class destination for premier shopping and national, regional, and neighborhood retail businesses, to expand Palm Desert as an educational hub, to facilitate development of high-quality housing for people of all income levels, and to develop creative and innovative zoning and incentives that promote education and high-quality residences and encourage a balance between housing and jobs.

Parks & Recreation: The Strategic Plan envisions parks, open spaces, and recreational opportunities as drivers of innovation and a high quality of life. Priorities are to fund park maintenance and plan for future replacement and growth, assure a continuing flow of innovative ideas through creative partnerships, and provide adequate staffing. Other priorities include encouraging resident input, promoting healthy community principles by incorporating recreational and exercise opportunities in all public spaces, planning and developing the North Sphere Regional Park, and evaluating the need for expansion of the Palm Desert Aquatic Center.

Public Safety & Emergency Services: The vision is for a high quality of life for Palm Desert as a result of its comprehensive public safety services. Priorities are to continually enhance the delivery of public safety services, increase methods of crime prevention through expanded community participation, and help the community be more prepared for disasters and public safety emergencies.

Tourism & Marketing: The plan envisions a year-round international resort destination offering a wellness lifestyle, exemplary hotels, arts, entertainment, shopping, recreational, and education opportunities for all ages. Priorities are to improve access to the city and its attractions, to grow existing events and develop new events to enhance the desirability of Palm Desert year-round, to attract new and developing markets (culinary, medical, cultural tourism, business, sports, film industry,

emerging international markets and those for younger demographics), and to support Palm Desert tourism through enhanced marketing.

Transportation: The vision is of a community with safe, convenient, and efficient transportation options for residents and visitors. Priorities are to create walkable neighborhoods in residential, retail, and open space areas to reduce the use of low occupancy vehicles; revitalize the Highway 111 corridor through land use and other improvements; and emphasize multiple modes of travel including carpooling, bus riding, cycling, and walking.

Regional Setting

Palm Desert is located in Riverside County in the Coachella Valley. The city encompasses approximately 27.0 square miles, or 17,280 acres, generally bounded by the City of Rancho Mirage and Haystack Mountain to the west, Interstate 10 to the north, the suburban unincorporated community of Bermuda Dunes to the east, and Indian Wells and undeveloped mountains to the south (Exhibit 1, Regional Location Map). The US Census Bureau estimated the 2013 population of Palm Desert at 50,508. The city is located on the Palm Desert, CA, USGS 7.5-Minute Quad Map, 33°43'45" North, 116°22'20" West.

Planning Area

The Planning Area covers 42,488 acres (69.6 square miles), of which, 17,226 acres are within the corporate boundaries of the City of Palm Desert and 27,277 acres (42.6 square miles) are in the Palm Desert Sphere of Influence (SOI). The city is bordered by cities of Rancho Mirage to the west and Indian Wells to the south and east, and by the unincorporated community of Bermuda Dunes to the east.

The existing city limits generally extend southward from Interstate 10, past Highway 111 and along Route 74 to the foot of the Santa Rosa Mountains between Monterey Avenue and Washington Street. The SOI encompasses areas to the north and south of the city, including portions of the Santa Rosa mountains south of the city limits and the unincorporated community of Bermuda Dunes to the east, and Sun City Palm Desert north of Interstate 10. Figure 1.1 and 10.1 in the TBR depicts the Palm Desert city limits, SOI, and location relative to other nearby cities or communities. The Planning Area, shown on **Figure 3-2**, includes the entire corporate limits of the city.

Key Project Elements

General Plan Update

The City of Palm Desert is preparing an update to its existing General Plan, which was extensively updated in 1980 and again in 2004. The update will focus on key areas of the city, including the Highway 111 corridor/City Center and the areas around the California State University and University of California campuses. The General Plan update will also include goals and policies that provide the City with the tools to seek pedestrian-oriented development patterns to diversify the city's existing primarily automobile-oriented development patterns and realize both a true City Center and a vibrant university campus area.

The General Plan will be prepared in compliance with Government Code Section 65300 that states:

Each planning agency shall prepare and the legislative body of each county and city shall adopt a comprehensive, long-term general plan for the physical development of the county or city, and of any land outside its boundaries which in the planning agency's judgment bears relation to its planning. Chartered cities shall adopt general plans, which contain the mandatory elements specified in Section 65302.

The content of the General Plan update will describe intended development and advised changes to be made to the cityscape and community over the next 25 years. The proposed elements, with their respective goals and policies, address a number of topics and are titled Land Use & Community Character, Mobility, Health & Wellness, Environmental Resources, Safety, Noise, and Public Services & Utilities. The City's Housing Element is current, has been certified by the State, and will not be included as a part of this update.

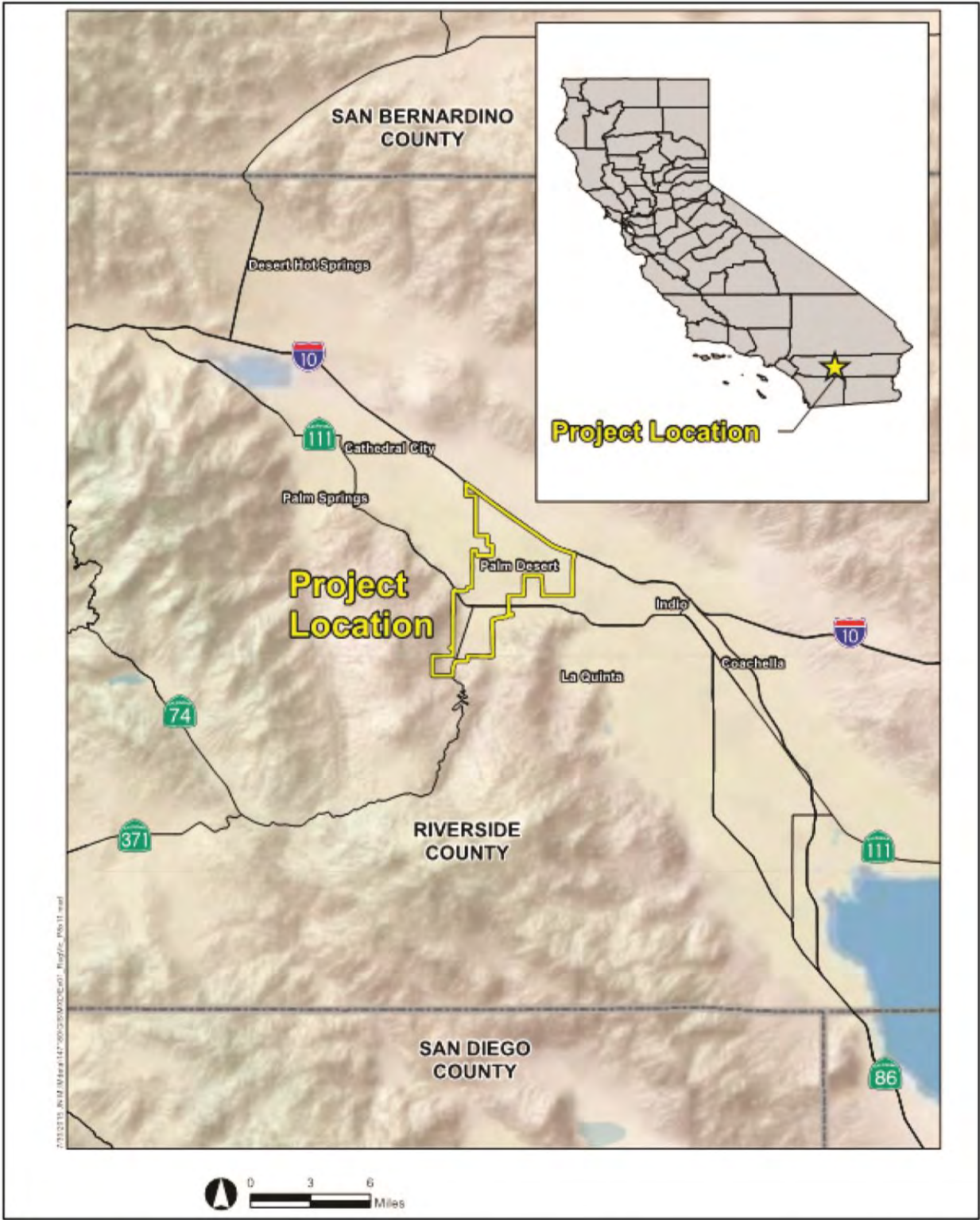
111 Corridor Plan

The 2013 Strategic Plan identified the need to revitalize the Highway 111 corridor into a true downtown-type City Center. As such, the General Plan will include detailed policies and actions to chart a path for the revitalization of this area of the city. To implement this plan, the project will also include new development standards and design guidelines. The Highway 111 planning area, **Figure 3-4**, is included later in this chapter.

University Neighborhood Specific Plan

Both the 2004 General Plan and the 2013 Strategic Plan identify the area around the California State University campus as a strategic opportunity for the City. To take full advantage of the university, the surrounding lands are intended to be developed in relation to the campus with great connectivity, a mix of housing types, and new commercial opportunities. In concert with this General Plan, the City initiated a Specific Plan for a 170-acre parcel at the northeast corner of Portola Avenue and Frank Sinatra Drive. Many of the property owners to the north and east of the City's property expressed interest in joining the City in the master planning process and will be included in the City's Specific Plan. This Specific Plan, approximately 397 acres, will present a plan for single-family, multi-family, and commercial uses, as well as parks, and will serve as an implementation tool of the General Plan update. Refer to **Figure 3-3** for the Specific Plan land use plan.

Figure 3-1 Regional Location

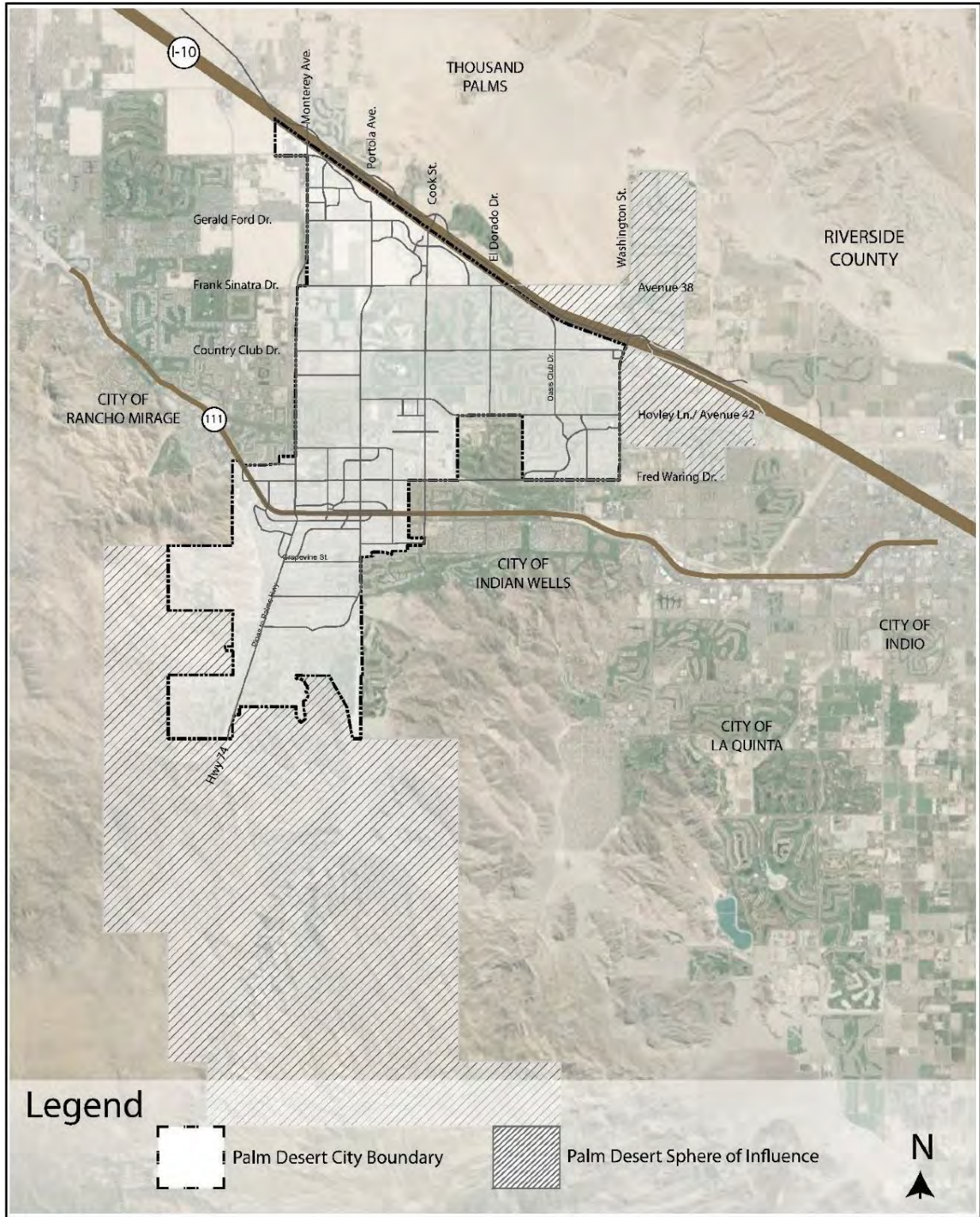


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REGIONAL LOCATION

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Figure 3-2 Planning Area



Project Characteristics

The proposed project consists of three components: the City of Palm Desert General Plan update, the 111 Corridor Plan, and the University Neighborhood Specific Plan. The three components are described below.

General Plan Update

The Palm Desert General Plan is the principal tool for guiding the physical form and development of the city. At the same time, it is a visionary document that lays out the community's long-term goals and objectives for the future. The environmental impact analysis in this program EIR is defined primarily by the change between existing conditions and those associated with future land uses proposed in the General Plan update. It contains the City's official policies on land use and community design, mobility, housing, infrastructure, economics, health, and public facilities and services. Its purpose is to identify planning goals; provide a basis for decision-making; and inform citizens, developers, decision-makers, and other cities of the ground rules for development in Palm Desert. The full text of the General Plan update is available for public review on the City's website at <http://www.palmdesert.org/our-city/general-plan-update>.

The General Plan update consists of nine elements, or chapters, that together meet state requirements for a general plan. These elements are:

- Land Use & Community
- Mobility
- Health & Wellness
- Environmental Resources
- Noise
- Safety
- Public Utilities & Services
- City Center Area Plan
- Housing

The General Plan update also includes a Vision chapter, an Introduction chapter, and a Work Plan chapter that presents implementation actions for each element.

General Plan Elements

- The **Land Use & Community Character Element** designates the general distribution and intensity of residential, commercial, industrial, open space, public/quasi-public, and other categories of public and private land uses. Through place-type-based land use designations organized around neighborhoods, districts, and centers, the Land Use Element will preserve the city's existing neighborhoods, enhance key commercial corridors, and provide strategic guidance for the transformation of the Highway 111 corridor into a true downtown. Similarly, the Land Use Element will provide direction and the policy foundation for creating a walkable, mixed-use neighborhood near the university.
- The **Mobility Element** seeks to create a balanced transportation system that accommodates all modes of travel safely and efficiently, without prioritizing automobile travel. Through complete streets, traffic calming, and a network of

bike paths, trails, and roads, the element will connect all modes of transportation to facilities and recreation.

- The **Health & Wellness Element** will encourage a physical, social, and civic environment that supports residents’ health. This element will address the requirement and location of parks and recreational facilities throughout the city. The element will create community programs, local food systems, and educational facilities to increase awareness and practice of healthy living.
- The **Environmental Resources Element** will present goals and policies for the community of Palm Desert that will minimize risks of climate change, promote resource efficient and environmentally respectful communities, and offer access to open space and parkland. Heat island mitigation, alternative energy uses, and water recycling programs are also presented in the element to sustain an environmentally sound city for years to come.
- The **Noise Element** establishes standards and policies to protect the community from the harmful and annoying effects of exposure to excessive noise levels. This element includes strategies to reduce land use conflicts that may result in exposure to unacceptable noise levels.
- The **Safety Element** establishes policies and programs to protect the community from risk associated with known hazards (i.e., geologic, flood, and fire) and sets standards for emergency preparedness.
- The **Public Utilities & Services Element** establishes the City’s long-term goals and policies for producing, managing, and maintaining its infrastructure systems and public utilities.
- The **City Center Area Plan** is an in-depth plan aimed at establishing a true City Center in Palm Desert by creating a framework, design objectives, and implementation techniques for future development.
- The **Housing Element** is a stand-alone volume that is updated more frequently than the other elements. It can be found under separate cover.

Growth Projections

The proposed General Plan anticipates and plans for growth in the city in a flexible manner, understanding that ultimately market forces, demographics, and migration will dictate how much growth is actually realized in the city. For the purposes of this EIR and other planning, the General Plan anticipates growth as follows:

	2012	2035	2040	Net
Population	49,786	60,226	61,691	11,905
Households	23,352	30,666	31,401	8,049
Employment	36,874	49,352	50,536	13,662

Goals, Policies, and Action Items

Each element of the Palm Desert General Plan will contain a series of goals, policies, and action items that provide guidance to the City on how to direct change, manage growth, and manage resources over the expected 25-year horizon of the General Plan.

- A **goal** is a description of the general desired result that the City seeks to create through the implementation of the General Plan.
- A **policy** is a specific statement that guides decision-making as the City works to achieve its goals and objectives. The General Plan's policies set out the standards that will be used by City staff, the Planning Commission, and the City Council in their review of land development projects, resource protection activities, infrastructure improvements, and other City actions. Policies are ongoing and require no specific action on behalf of the City.
- An **action item** is an implementation measure, procedure, technique, or specific program to be undertaken by the City to help achieve a specified goal or implement an adopted policy. The City must take additional steps to implement each action item in the General Plan. An action item is something that can and will be completed.

Land Use Designations

The General Plan update incorporates a vision for how Palm Desert will look and function in decades to come. The Zoning Ordinance establishes requirements for how land can be developed and used today. By requiring land to be used and developed in ways that are consistent with the General Plan update, the Zoning Ordinance implements the plan over time. All land in Palm Desert has a land use designation and is located in a zone. Land use designations establish broad policy and intent for how land should be used and developed. Zones allow or prohibit specific uses and establish setbacks, minimum parking requirements, and other development requirements. One or more zones specify detailed use and development standards for each land use designation.

Each land use designation generally describes the intended land uses for a parcel or parcels and establishes a permitted range of density or intensity of development. The maximum allowable density or intensity at any given location may be affected by such factors as the physical characteristics of a parcel, access and infrastructure issues, and compatibility with surrounding uses. Dwelling unit per acre (DU/acre) densities describe the maximum permitted intensity of residential uses, and floor area ratios (FAR) describe the maximum permitted intensity and size of commercial and industrial uses. For most commercial and industrial designations, both densities (DU/acre) and intensities (FAR) are established, although future residential uses within such designated areas would require discretionary approval. Where a range is established, the minimum value represents the least intense land use permitted in the area, while the maximum value represents the most intense land use permitted. **Table 3-1** summarizes the proposed land use designations and their corresponding density ranges.

Table 3-1 Land Use Designations and Intensities

Land Use Category	Allowed Land Uses	Max. Density/Intensity
Rural Neighborhood	Single-family residential. Limited commercial activity may be allowed in the form of focused specialty lodging such as a bed and breakfast inn with minor commercial/retail. Uses such as guest houses, churches, schools, family day care homes, public facilities, and others which are determined to be compatible with and oriented toward serving the needs of rural, low-density neighborhoods may also be allowed.	DU/acre: 0.05 to 1.0 Commercial FAR: N/A
Golf Course and Resort Neighborhood	A variety of single-family houses and limited multi-family dwellings organized around golf courses and other open space with focused commercial/retail. Uses such as retail, personal service, care, public facilities, and others which are determined to be compatible with and oriented toward serving the needs of resort-oriented living and recreation may also be allowed.	DU/acre: up to 8.0 Commercial FAR: N/A
Conventional Suburban Neighborhood	Single-family houses and small multi-family dwellings organized along walkable streetscapes with commercial/retail activity nearby.	DU/acre: 3.0 to 8.0 Commercial FAR: N/A
Small Town Neighborhood	A variety of single-family houses and small multi-family dwellings organized along walkable streetscapes with limited commercial/retail activity within walking distance. House-scale multi-family is allowed on a limited basis, primarily along corridors. Uses such as retail, care, public facilities, guest houses, churches, schools, family day care homes, and others which are determined to be compatible with and oriented toward serving the needs of neighborhoods may also be allowed and should be focused along corridors.	DU/acre: 3.0 to 10.0 Commercial FAR: up to 0.75

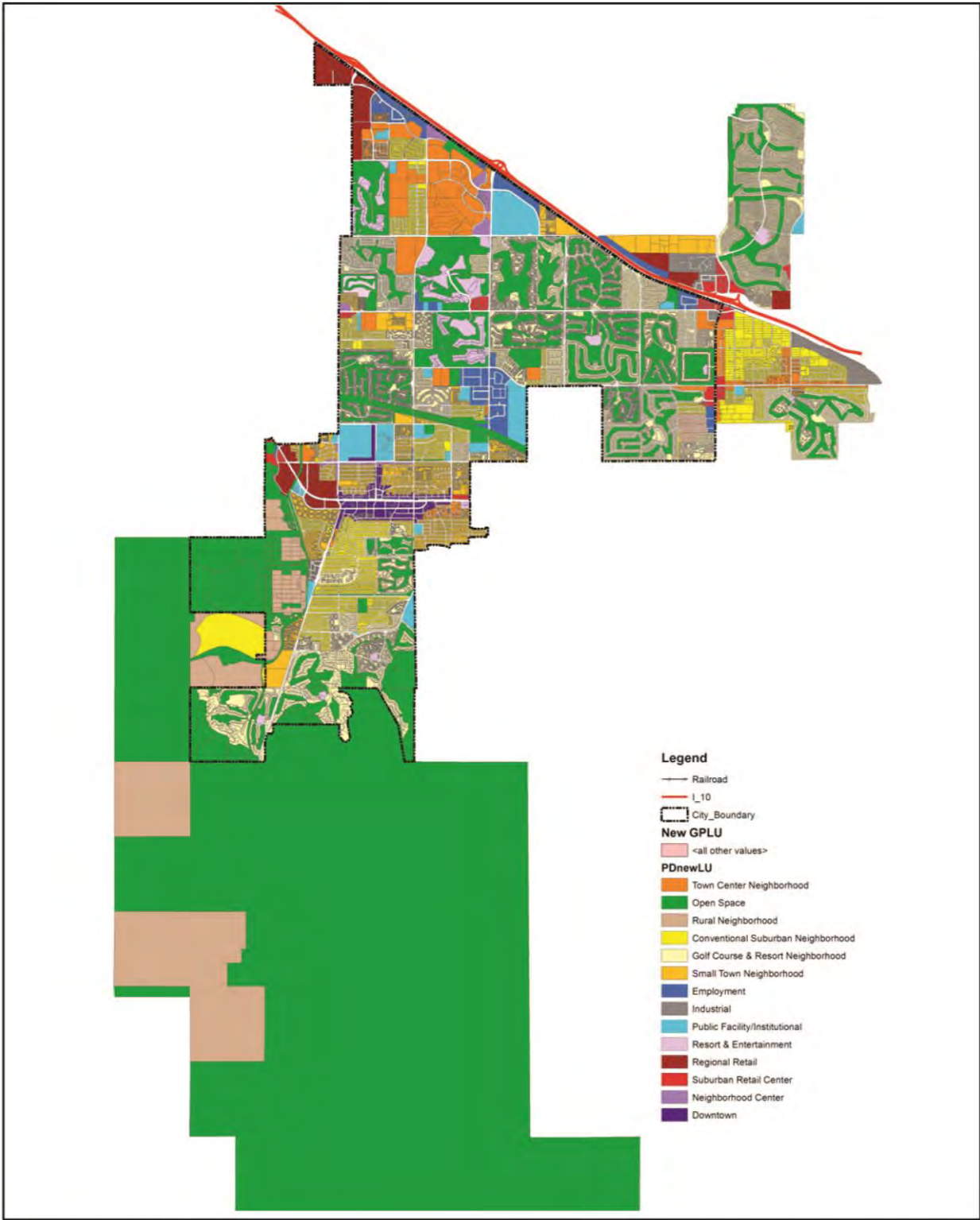
Table 3-1, continued

Land Use Category	Allowed Land Uses	Max. Density/Intensity
Town Center Neighborhood	A range of single-family and multi-family residential uses including duplex, triplex, quadruplex, rowhouses, townhouses, courtyard multi-family buildings, and small-scale multi-family buildings organized along walkable streetscapes with focused commercial/retail activity within walking distance. Uses such as retail, personal service, care, public facilities, guest houses, churches, schools, family day care homes, public facilities, and others which are determined to be compatible with and oriented toward serving the needs of neighborhoods may also be allowed and should be focused along corridors and main streets.	DU/acre: 7.0 to 22 Commercial FAR: 0.5 to 0.75
Employment District	A wide variety of office and limited commercial activity along with multi-family dwellings organized along walkable streetscapes. Uses would include professional and medical office, and traditional business park.	DU/acre: N/A Commercial FAR: up to 0.75
Industrial District	A wide variety of industrial and limited commercial activity organized on utilitarian industrial streets. Industrial and research and development uses, with support retail and office uses, would be allowed.	DU/acre: N/A Commercial FAR: up to 0.75
Public Facility/Institutional District	Government buildings and facilities and a wide range of public uses such as public and private schools, higher educational facilities, community centers, and other similar uses.	DU/acre: N/A Commercial FAR: up to 0.5
Resort and Entertainment District	Lodging, recreation, support retail, and commercial services with specialized entertainment.	DU/acre: up to 10.0 Commercial FAR: maximum of 0.10; exceptions may be made for certain entertainment uses such as theme parks
Regional Retail	A variety of large-format retail, commercial services, lodging, entertainment, and restaurant activity organized along walkable streetscapes.	DU/acre: 10.0 to 15.0 Commercial FAR: 0.35 to 1.0

Table 3-1, continued

Land Use Category	Allowed Land Uses	Max. Density/Intensity
Suburban Retail Center	Primarily retail and services, sometimes with commercial uses on upper floors, and flexibility of adding housing.	DU/acre: 10.0 to 15.0 (if housing is included) Commercial FAR: 0.2 to 1.0
Neighborhood Center	Primarily neighborhood-serving retail and services. Allowed uses include retail, professional office, local-oriented uses, including supermarkets, retail stores, theaters, restaurants, professional and medical offices, and specialty retail stores, and flexibility of adding housing. Residential uses are secondary uses found on upper floors of mixed-use buildings and in multi-family buildings at the edge of the center where it transitions to the adjoining neighborhood.	DU/acre: 10.0 to 15.0 Commercial FAR: up to 0.5
Downtown	A variety of civic, cultural, entertainment, retail, restaurant, and commercial services activity along with multi-family dwellings organized along walkable streetscapes. Ground-floor uses include retail, restaurant, service, and office uses, while upper floors accommodate residential and office uses. Residential uses are prohibited on ground floors.	DU/acre: 12.0 to 20.0 Commercial FAR: up to 2.5

Figure 3-3 Proposed Land Use Diagram



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Source: City of Palm Desert
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Not to Scale

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PROPOSED LAND USE DIAGRAM

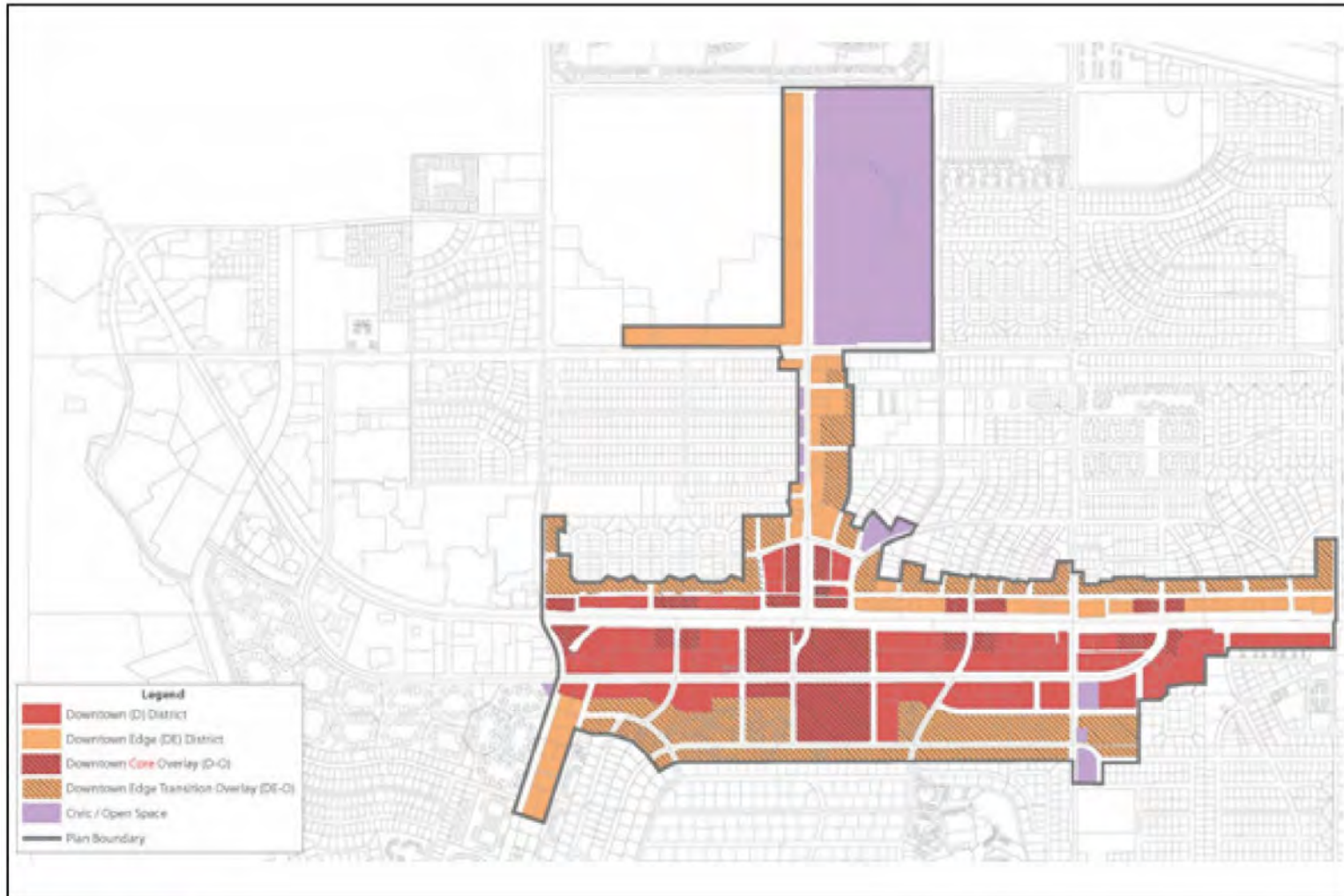
111 Corridor Plan

City Center Area Plan

The Strategic Plan made a very strong case for both the desire for a true City Center and the economic and community benefits of having such a center. A City Center, or downtown, is compact and moderate in scale, has a mix of uses, has a range of housing types, and is easy and comfortable to navigate on foot. The City Center is the heart of the town and the center of social, civic, and commercial activity. Few cities in Southern California have authentic downtowns, and the creation of one in Palm Desert will be a distinguishing milestone on the path toward creating a stronger sense of place and a more competitive city. Because this strategy is such an important component of the Envision Palm Desert Strategic Plan, it will be critical for the City to focus efforts and resources on the successful implementation of the plan. Similarly, the City will focus on creating a spark of excitement by starting the evolution of the City Center with the transformation of the San Pablo Center.

The City Center Area Plan is an element of the General Plan and presents a vision for the future of the greater Highway 111 corridor area, including El Paseo, the San Pablo corridor, and the Civic Center. It also provides a summary of the community input, guiding principles, goals, and policies for transforming the Highway 111 corridor into Palm Desert's downtown. Implementation actions for the City Center Area Plan are contained in General Plan Chapter 12.

Figure 3-4 Corridor Plan-Location



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CORRIDOR PLAN-LOCATION

University Neighborhood Specific Plan

Background

Through the 2013 Strategic Plan process and 2015 General Plan update process, the community identified opportunities to re-center its civic life around activity centers in the historic downtown on Highway 111 and the University District in north Palm Desert. The creation of both a California State University and a University of California campus in Palm Desert is an enormous economic opportunity for both the city and the entire Coachella Valley. The campuses offer new opportunities for educating residents, attracting new talent to the valley in the way of both faculty and students, and attracting investment related to university operations. The City will need to continue to work with and support the development of these universities. More importantly, the City will need to ensure that the lands around the universities are developed in a way that maximizes connectivity and accessibility. Through a strategy of connectivity and accessibility, the City will capitalize on the greatest possible value of creating a university area.

To help achieve this outcome, the City has prepared a University Neighborhood Specific Plan, which provides detailed design guidance for the neighborhoods near the universities and the roads that connect the area internally and with the rest of the city.

Location

The University Neighborhood Specific Plan area is located on the northern edge of the city, south of Interstate 10 (see **Figure 3-5**).

Specific Plan Overview

The University Neighborhood Specific Plan covers approximately 400 acres within the city limits, 3 miles north of the city's downtown and civic center. The Specific Plan area is bordered by Gerald Ford Drive on the north, Frank Sinatra Drive on the south, Portola Avenue on the west, and Cook Street on the east. A half mile from Interstate 10, the site is a primary gateway to Palm Desert and the larger Coachella Valley.

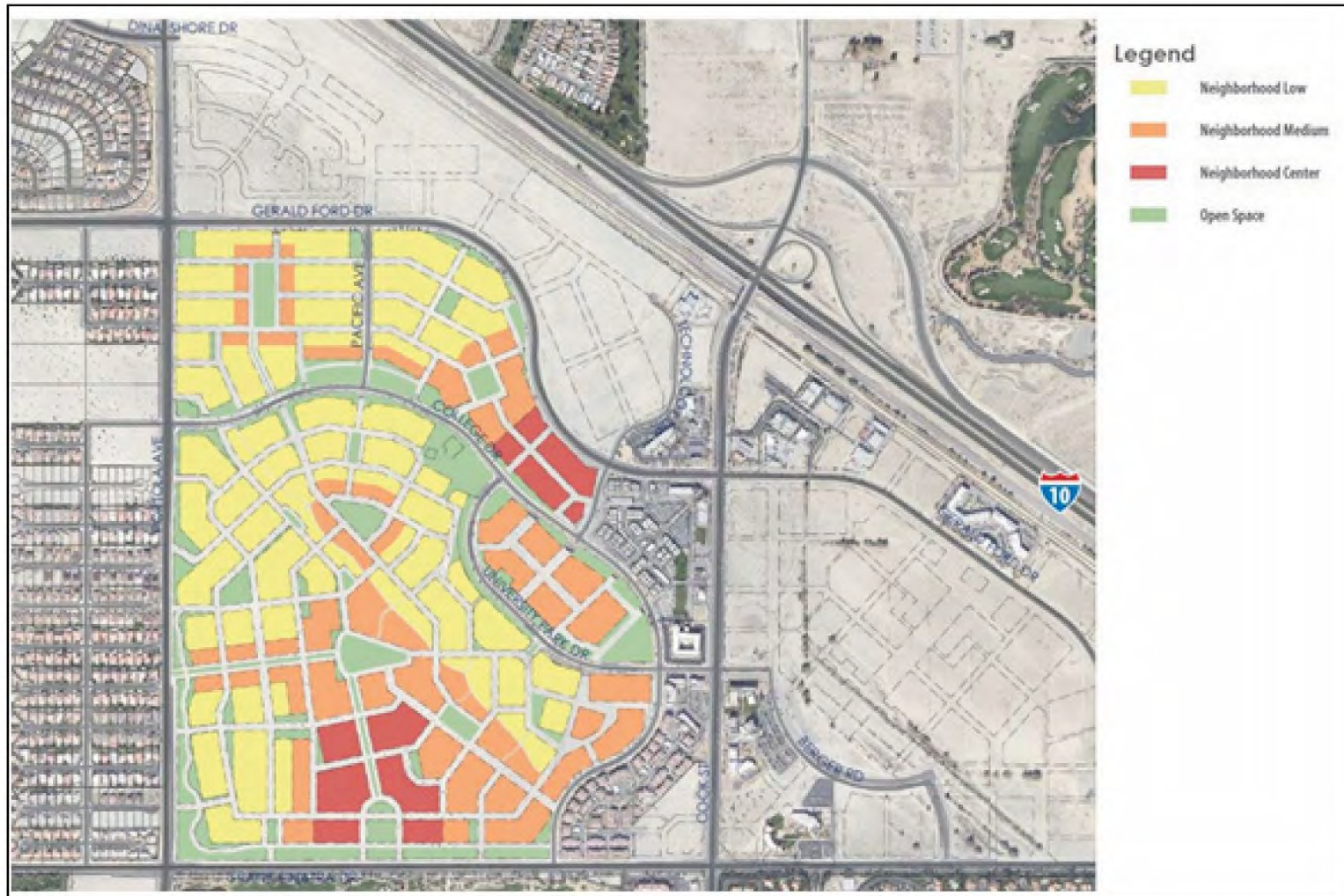
The Specific Plan area is relatively flat, with slight rolling topography, and slopes gently toward the east. It is bounded by development on the west and south sides consisting of the following:

- University of California, Riverside, Palm Desert Campus (±35 acres) immediately east of the Specific Plan area
- California State University, San Bernardino, Palm Desert Campus
- University-owned planning area (±155 acres), east of the Specific Plan area (still under development)
- Desert Willow Gold Resort to the south
- Single-family developments to the west

The land to the north and east is currently undeveloped, but contains the Millennium Palm Desert Specific Plan, a 150 acre multi-use specific plan, which will include up to 690 residential units, and 27 acres for a new regional park.

The planning and design of the University Neighborhood Specific Plan is based on a pre-existing urban development pattern and street network adopted by a General Plan Revision, known as the University Park Plan (Community Facilities District 2005-1). The plan established 17 parcels on approximately 268 acres of undeveloped land to consist of mixed-use, residential and commercial uses, a golf course, and other open spaces. The collector streets existing today (College Drive, University Park Drive, Technology Drive, and Pacific Avenue) and related backbone infrastructure were constructed between 2006 and 2007. However, the subsequent economic recession prevented completion of University Park. Since 2007, the Specific Plan area has remained largely undeveloped, with the exception of two community parks that together total 5 acres.

Figure 3-5 University Neighborhood Specific Plan



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UNIVERSITY NEIGHBORHOOD SPECIFIC PLAN

Project Objectives

The City has several objectives that the General Plan update is intended to achieve:

- Anticipate new demographics and market trends to expand economic competitiveness and attract new employers.
- Continue to serve as a destination that entices visitors and to endure as a community with a high quality of life that attracts the best and the brightest residents, students, and businesses.
- Create a greater range of development patterns to offer existing and future residents additional options for the types of place they live in, maintaining a moderate density and scale: just enough to create interest and activity, but not so much as to overwhelm people and not so little as to dilute the sense of place or inhibit walking and bicycling.
- Create safe and comfortable places for pedestrians with convenient, safe, and easy street crossings and convenient, close access to buildings.
- Reduce automobile dependence through the enhanced active transportation options.
- Create an authentic, walkable downtown along the Highway 111 corridor.
- Create a mixed-use, mixed-housing walkable neighborhood in the vicinity of the California State University campus.
- Create lively centers for residents and visitors to congregate throughout the city.
- Create a layered transportation network that will expand transportation opportunities for walking, bicycling, and transit, while recognizing the importance of the automobile, to expand access to the city and throughout the city.
- Maintain the city's unique geographic setting by protecting existing open space and expanding the types of open space and recreational areas within the city.

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4. INTRODUCTION TO THE ANALYSIS

Baseline Existing Conditions Assumed in the Analysis

Each resource chapter in this EIR (see Chapters 4.1 through 4.15) summarizes the environmental setting specific to that resource topic. The environmental setting summary is based on information that was prepared as part of the Technical Background Report (TBR). The TBR is included as **Appendix 4.0** to this EIR.

Scope

Chapters 4.1 through 4.15 present the environmental impact analysis for the anticipated effects of implementation of the General Plan update. Topics evaluated in these resource chapters are described in Chapter 1, Introduction, and were identified in the Notice of Preparation (NOP) (**Appendix 1.0**).

Structure

Each resource chapter presents an evaluation of a particular environmental topic and includes a summary of existing conditions (both physical and regulatory), potential environmental impacts, feasible mitigation measures proposed to reduce significant environmental impacts (where necessary), and a determination of the level of significance after mitigation measures are implemented.

Environmental Setting

This subsection provides summary information about the existing physical environment related to the resource topic. In accordance with State CEQA Guidelines Section 15125, the discussion of the physical environment describes existing conditions in the Planning Area at the time the NOP was filed in August 2015. The basis for the environmental setting is the information in **Appendix 1.0**.

Regulatory Setting

This subsection summarizes federal, state, regional, and local plans, policies, laws, and regulations that apply to the resource. A full description of the regulatory setting for each resource chapter is included in **Appendix 1.0**.

Thresholds of Significance

The thresholds of significance that will serve as the basis for judging impact significance are identified in each resource chapter. Thresholds of significance used for the evaluation of impacts include those thresholds currently used by the City when reviewing individual projects and are based upon and consistent with Appendix G to

the State CEQA Guidelines. The City of Palm Desert considers these thresholds appropriate for evaluating the significance of impacts in the city.

Impacts

The discussion of impacts describes potential consequences to each resource that would result from implementation of the General Plan update. Potential environmental impacts have been classified in the following categories:

- The term **no impact** is used when the environmental resource being discussed would not or may not be adversely affected by implementation of the General Plan update. This impact level does not require mitigation.
- A **less than significant impact** would or may cause a minor but acceptable adverse change in the physical environment. This impact level does not require mitigation under CEQA.
- A **significant impact** would or may have a substantial adverse effect on the physical environment, but could be reduced to a less than significant level with mitigation. Impacts may also be considered **potentially significant** if the analysis cannot definitively conclude that an impact would occur with implementation of the General Plan update. Under CEQA, mitigation measures must be provided, where feasible, to reduce the magnitude of significant or potentially significant impacts.
- A **significant and unavoidable impact** would or may cause a substantial adverse effect on the environment, and no known feasible mitigation measures are available to reduce the impact to a less than significant level, or implementation of feasible mitigation measures would not reduce impacts to a less than significant level. Under CEQA, a project with significant and unavoidable impacts could proceed, but the City would be required to prepare a statement of overriding considerations in accordance with State CEQA Guidelines Section 15093, explaining why the City would proceed with the project despite potential for significant impacts.

Mitigation Measures and Residual Impacts

If impacts are considered significant and it is determined that implementation of the General Plan update policies would not reduce impacts to a less than significant level, mitigation measures are proposed to reduce or avoid these impacts. This section also describes an impact's level of significance following mitigation. Impacts are then defined either as significant but mitigable or as significant and unavoidable. Significant but mitigable impacts could be reduced to a less than significant level with mitigation. Significant and unavoidable impacts would remain significant either because feasible mitigation to reduce impacts is unavailable or because proposed mitigation measures would not reduce impacts to a less than significant level.

Format of Impacts and Mitigation Measures

Throughout the discussion, impacts are identified numerically and sequentially. For example, impacts discussed in Chapter 4.1 are identified as 4.1-1, 4.1-2, and so on. Mitigation measures, where needed, are identified numerically to correspond to the number of the impact being reduced by the measure. For example, Mitigation Measure 4.1-1 would mitigate Impact 4.1-1.

The format used to present the evaluation of impacts and mitigation measures is as follows:

IMPACT **Impact Title.** *An impact summary heading appears before the impact discussion. The heading contains the impact number and title. The impact statement briefly summarizes the findings of the impact discussion below. The level of significance is included at the end of the summary heading. Levels of significance listed in this EIR (as described above) are **no impact, less than significant, potentially significant, or significant.***

The impact discussion is contained in the paragraphs following the impact statement. The analysis compares implementation of the General Plan update to existing conditions by:

- Identifying federal, state, regional, and local regulations that would reduce or mitigate the impact;
- Identifying the General Plan update policies and implementation programs that would reduce or mitigate the impact; and
- Describing the potential impact with implementation of applicable regulations and the General Plan update policies and implementation programs.

Mitigation Measures

After the impact discussion, if necessary, feasible mitigation measures are identified that would reduce the impact. If no mitigation is necessary or feasible, a statement to that effect is included.

Feasible Mitigation

The State CEQA Guidelines define feasible as follows:

15364. FEASIBLE

“Feasible” means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.

For purposes of this EIR, the City will consider a mitigation measure feasible if it:

- a. Is within the jurisdictional boundaries of the City of Palm Desert.
- b. Can be implemented by the City of Palm Desert, requiring no discretionary act by any other participating agency.
- c. Can be objectively measured.

When to Mitigate

Mitigation is a modification of a project recommended to address an identified environmental impact. Every project is assumed to follow federal, state and local laws regarding development. Mitigation measures will be recommended only if there is no existing law that would adequately address an impact, or if a specific issue needs to be addressed while complying with the law.

Condition of Approval vs. Mitigation Measure

While all mitigation measures are conditions of approval, conditions of approval can be negotiated with the applicant and do not need to be based on an identified impact. Mitigation measures are only possible if the environmental document identifies a significant impact, and the proposed mitigation is a means of reducing the impact. If there is no impact then CEQA does not provide a mechanism to modify the project.

4.1. Aesthetics

Introduction

This chapter evaluates the potential environmental impacts related to aesthetics associated with implementation of the Palm Desert General Plan update (proposed project). The analysis includes a review of scenic vistas, visual character, shadow, and light and glare in Palm Desert. The General Plan update Environmental Resources Element policies and the implementation actions presented in General Plan Chapter 12, Work Plan, guide develop and facilitate consideration of open space and aesthetic resources during the City's development review process.

NOP Comments: No comment letters in response to the Notice of Preparation (NOP) addressed aesthetics issues.

References and Background Information: Information for this resource chapter is based on the Technical Background Report (TBR) prepared for the General Plan update. The TBR is attached to this document as **Appendix 4.0**. This EIR, including the TBR, is also available electronically on the City's website (<http://www.cityofpalmdesert.org/our-city/general-plan-update>).

Environmental Setting

Section 2 of the TBR describes scenic vistas, scenic resources, the visual character, light and glare, and shade and shadow in Palm Desert. The text below summarizes the key information presented in **Appendix 4.0** that is useful to the analysis.

Natural Scenic Resources

- Major scenic viewsheds include the Santa Rosa, San Jacinto, and San Bernardino mountain ranges.

Natural Scenic Vistas

- The lack of towering buildings and the wide boulevard-style streets provide ample views to the mountains that surround the city. Appropriate landscaping materials are low and do not obscure the adjacent views.

Built Environment

Building Heights

- Within the context of existing development and appropriate design, new structures should be similar in height to and compatible with other buildings in the vicinity, with the goal of preserving and enhancing design qualities of the built environment while maintaining important viewsheds. Most of the development in the city is two stories or less, which, coupled with height restrictions that limit new buildings to three stories or less, ensures that new development will fit into the surrounding areas of the city and not detract from the views of the many scenic resources in the region.

Building Setbacks

- The City of Palm Desert Zoning Code addresses the development standards per each zone, including setbacks. Assigned setbacks should be harmonious with the streetscape, surrounding structures, and scenic resources. Variations in

building massing are encouraged but should reflect a sense of compatibility as a group. In addition, building proportions should not dominate the street or other structures and should limit the fragmentation of viewsheds to the greatest degree practical.

Overhead Power Lines

- Overhead power lines obscure views and detract from the visual quality within older neighborhoods in the city. Many of these neighborhoods were developed prior to the placement of electrical utilities underground. As a result, certain parts of the city look different from others, which impacts aesthetics. Placing this infrastructure underground would reduce this exposure.
- Estimated costs to place these lines underground is approximately \$235 million; the City has no plans in place to make these improvements at this time. However, Palm Desert residents have access to an established, citizen-initiated, democratic process by which neighborhoods can pursue utility undergrounding through the formation of assessment districts.

Desert Landscape Design

- Chapter 25.52 of the Zoning code addresses the landscaping regulations for the City. In addition, the City's Landscape Design Manual recommends using aesthetically pleasing color choices when choosing cobble and decomposed granite as decorative elements. This design aspect is used to stabilize sandy soils and to assist surface water to drain rather than to evaporate from the soil's surface. Furthermore, the 2004 General Plan states that landscape design can also create microclimates providing protection from strong winds, shade from the sun, and reduced outdoor and indoor temperatures.

Bus Shelter Improvement Program

- On October 28, 1999, the City Council approved the Bus Shelter Improvement Program, which provides more aesthetic and environmentally efficient bus shelters throughout the city. Features include solar-powered security lighting and the elimination of advertisements on all new bus shelters within the city limits.

Traffic Calming

- Traffic calming is typically accomplished by imposing constraints on vehicle movement and by providing less generous roadway paved sections. Such design features as curvilinear streets, narrow travel lanes, and landscaped median islands act to slow traffic and require greater driver awareness. More generous parkway landscaping resulting from narrower paved streets also improves neighborhood aesthetics. Regulations and standards to support traffic calming can be found in the City Zoning code and the City's Landscape Design Manual.

Landmarks and Focal Points

- The City implements a thematic entry signage program, which uses Arizona sandstone and Native American imagery.

Signage and Viewsheds of Public Rights-of-Way

- Chapter 25.56 of the City Zoning Code addresses sign regulations. Commercial signage along major roadways provides important business identification but

also can degrade the value of the viewshed along public rights-of-way. Balancing the needs of business with the importance of preserving scenic views is an ongoing process in the city.

Art in Public Places Program

- Palm Desert’s Art in Public Places program integrates public art with native landscaping to reflect the surrounding mountains and desert dunes and washes. It can include the attentive design and placement of public buildings, as well as placement of man-made monumental sculpture on public lands or within the rights-of-way of major roadways.

Scenic Roadways/Highways

- There are a series of scenic roadways/highways within the Planning Area. The only official route designated by the State of California is State Route 74, which is considered the Palms to Pines Scenic Byway. This highway runs from the west boundary of the San Bernardino National Forest to Highway 111, with 3.5 miles of the scenic highway in Palm Desert.

Local Scenic Roadways

- The following are identified as local scenic roadways:
 - Highway 111
 - Cook Street
 - Portola Avenue
 - Fred Waring Drive
 - Washington Street
 - Frank Sinatra Drive
 - Gerald Ford Drive
 - Country Club Drive
- The intent of scenic roadway designation is to require special setbacks and landscaping where applicable.

Light and Glare

- The existing General Plan states that desert colors and tones that are integrated into the attractiveness of the community are important to both residents and visitors. Desert colors and tones are integrated into street signs, traffic signals, and lighting standards to soften the city’s impact on the surrounding views. The City preserves the value of the community’s night sky by avoiding unnecessary lighting and glare from signage, building and landscape illumination, or other sources of outdoor lighting. Standards for lighting establish the maximum height and number of fixtures, and the intensity of lighting needed to provide sufficient parking lot and building security and identification for public safety, and to enhance landscaping and other site aesthetics.

Shade and Shadow

- Program 6.B in the City of Palm Desert General Plan states: The City shall encourage the incorporation of energy-efficient design measures into site plans, including appropriate site orientation to assure solar access, and the use of shade and windbreak trees, to enhance the use of alternative energy systems, and to reduce the need for excessive heating and cooling.
- Furthermore, the General Plan indicates that residential living space can be enhanced through the use of porches and verandas that offer protection from sun and wind.

Regulatory Setting

Federal

No federal plans, policies, regulations, or laws related to aesthetics apply to the Planning Area.

State

California State Scenic Highway Designation

The state laws governing the Scenic Highway Program are found in the Streets and Highways Code, Sections 260 through 263. State Route 74 is the only designated scenic highway in the Planning Area. While the California Department of Transportation (Caltrans) has determined that Highway 111 is an eligible state scenic highway, Highway 111 does not have a scenic designation.

Drought Proclamation

Governor Brown's April 1, 2015, declaration of a drought emergency (B-29-15) charged the State Water Resources Control Board (SWRCB) with mandating water restrictions for California. The SWRCB adopted statewide mandates on May 6, 2015, requiring water agencies to increase conservation efforts and reduce water consumption by 28 percent when compared to 2013 water usage. The SWRCB also directed urban water suppliers to develop rate structures and other pricing mechanisms, including but not limited to surcharges, fees, and penalties, to maximize water conservation consistent with statewide water restrictions.

In addition to required goals for the preservation of drinking water, the SWRCB was tasked with updating the State Model Water Efficient Landscape Ordinance and mandating its application through expedited regulation. Water conservation in landscape design has a profound effect on Palm Desert's community design. Thus, environmentally and aesthetically sensitive design is essential to the preservation and values of the community.

Regional and Local

Palm Desert Municipal Code

Section 4.10.080, Approval for Placement of Artwork on Private Property
The Public Art Department reviews the completed application and makes a recommendation to the Art in Public Places Commission concerning the proposed artwork and its proposed location, considering the aesthetic quality and harmony with the proposed project, and the public accessibility to the artwork, including any recommended conditions of approval.

Section 8.16.035, Storage of Containers in Residential Districts
Following completion of the normal collection of solid waste, as defined in Section 8.16.030, every person in charge of a residence is required to store refuse containers in such a manner as not to be viewable by the public from a public right-of-way in order to maintain the aesthetic and property values of surrounding property.

Section 8.20.020, Unlawful Property Nuisances
It is unlawful and a public nuisance for any person who owns, leases, rents, occupies, has charge of, or possesses any property in the city to maintain such property such that maintenance of the property is so out of harmony or conformity with the maintenance standards of adjacent properties as to interfere with the reasonable

enjoyment of property by neighbors and depreciate the aesthetic and property values of surrounding property.

Section 8.70.150, Neighborhood Compatibility

Property must be maintained in reasonable consistency and compatibility with the maintenance standards of adjacent properties so as not to interfere with the reasonable enjoyment of such properties or to depreciate their aesthetic or property values. This section may not be construed as relieving a property owner, manager, or occupier from complying with any property maintenance provisions of the Zoning Ordinance or applicable state law.

Chapter 24.04, Water-Efficient Landscape

The Coachella Valley Water District (CVWD) has created a water-efficient landscape ordinance in compliance with the California Department of Water Resources Model Water Efficient Landscape Ordinance; Attachment A of Ordinance 1302.1, Landscape and Irrigation System Design Criteria (CVWD Ordinance). The City has adopted by reference CVWD Ordinance No. 1302 (in its most current edition as of the date of plan submittal) as the City's water-efficient landscape criteria. It is the City Council's intent to defer technical irrigation review and approval process to the CVWD consistent with the CVWD ordinance. The City will have full authority over aesthetic (plant choice, spacing, and design).

Chapter 24.16, Outdoor Lighting Requirements

This chapter defines the City's outdoor lighting requirements in order to minimize light pollution and light trespass and to preserve the nighttime environment. Lighting requirements are established for outdoor lighting systems and include a site plan, fixture cutoffs, and a photometric plan illustrating that the proposed outdoor lighting system complies with the requirements outlined in the ordinance.

Title 25, Zoning

Title 25 of the Palm Desert Municipal Code contains the zoning regulations that govern development in the city. Within the code are development standards for building heights, building setbacks, landscaping standards, building and roofing materials, signage requirements, and parking requirements for residential, commercial, and industrial uses in the city. These standards are reviewed at the time of development application and are verified with building inspections conducted by the City.

Section 25.28.080, Scenic Preservation Overlay District

The purpose of the Scenic Preservation Overlay (SP) district is to designate scenic corridors that have a special aesthetic quality and to establish special development standards for development in these areas. Examples include preservation of scenic vistas, setbacks, landscaping, building heights, signs, and mitigation of excessive noise impacts. The overlay may be applied according to the procedures established in Section 25.78.030, Amendments—Zoning Ordinance.

Section 25.34.130, Communication Tower and Antenna Regulations

This section regulates the construction of communication towers and establishes findings for placement. A conditional use permit as established by Section 25.72.050, Conditional Use Permit, is required for all wireless communication facilities. The ordinance allows the City to deny a tower if there are negative aesthetic concerns. All communication towers must be reviewed by the Architectural Review Commission for building design to meet the requirements set forth in the Zoning Ordinance. Once all

requirements are met, the project is reviewed for approval based on the findings and conditions of approval.

Section 25.56.050, Prohibited Signs

The City prohibits a number of signs, including advertising devices, awnings that are back-lit, business and identification signs that mention more than two goods or services sold or available on the premises, cabinet or can signs that are internally illuminated, electronic changeable signs, commercial mascots, neon signs (except those placed in windows), billboards, pole signs, roof signs, signs that rotate, move, flash, or blink, signs on public property, in the public right-of-way, or on public utility poles, temporary or portable freestanding signs, and vehicle signs.

Section 25.56.080, Standard for Specific Types of Permanent Signs

The Architectural Review Commission implements this section through findings affirming that the approval will “visually enhance the aesthetic quality of the property on which the sign is to be located.” The ordinance also regulates the location and size of signs.

Section 27.12.090, Design Review

All land alteration must take into consideration the effect on surrounding property. The Zoning Ordinance requires particular attention to be given in the design to the protection of views from adjoining property across the area to be graded. If in the opinion of the City Engineer, views will be substantially damaged by the proposed grading, he or she shall refer the proposed grading plan to the Design Review Board for conceptual approval. The City will not issue a permit until conceptual approval is obtained.

Impacts and Mitigation Measures

Analysis Approach

The analysis of impacts is based on the likely consequences of adoption and implementation of the General Plan update compared to existing conditions.

Analysis of impacts is based on an evaluation of the changes to existing visual resources that would result from implementation of the proposed project. In making a determination of the extent and effects of the visual changes, the impact analysis considers the following:

- Specific changes in the visual composition, character, and valued qualities of the affected environment;
- The visual context of the affected environment; and
- The extent to which the affected environment contains places or features that have been designated in plans and policies for protection or special consideration.

The City of Palm Desert does not have an adopted definition for scenic vistas or a map designating local scenic views. In general, scenic vistas can be defined as viewpoints from publicly accessible areas, such as parks and roadways, that provide expansive views of a highly valued landscape for the benefit of the public. For purposes of this analysis, scenic vistas in Palm Desert are limited to the Santa Rosa, San Jacinto, and San Bernardino mountain ranges surrounding the city.

Draft Palm Desert General Plan Update Policies and Implementation Actions

Updated General Plan policies and implementation actions that reduce potential aesthetic impacts include:

Policies

Land Use & Community Character Element

- **Policy 1.1: Scale of development.** Require new development along the city's corridors to use design techniques to moderate height and use and ensure compatible fit with surrounding development.
- **Policy 2.3: Landscaping.** Require development projects to incorporate high quality landscaping in order to extend and enhance the green space network of the city.
- **Policy 2.4: Tree planting.** Encourage the planting of trees that appropriately shade the sidewalk and improve the pedestrian experience throughout the city.
- **Policy 2.5: Streetscape.** Enhance the pedestrian experience through streetscape improvements that could include new street lighting, tree planting, and easement dedications to increase the size of the sidewalks and pedestrian amenities.
- **Policy 2.6: Lighting.** Require all new street lights in commercial areas to be pedestrian-oriented and scaled, attractively designed, compatible in design with other street furniture, and to provide adequate visibility and security in accordance with best practices for night sky protection.

Environmental Resources Element

- **Policy 2.1: View corridor preservation.** Protect and preserve existing, signature views of the hills and mountains from the city.
- **Policy 2.2: Scenic roadways.** Continue to minimize the impact on views by restricting new billboards along the city's roads and highways. Electronic and animated billboards should be prohibited except in rare and special circumstances.
- **Policy 2.3: Hillside grading.** Continue to require the preparation of a grading analysis on hillside development to pre-determine where development should occur so as to minimize the impact of new development on view of the city's hillsides.
- **Policy 2.4: Public facilities.** Plan public facilities, roads, and private development to take advantage of the city's mountain and hillside views, especially as the City Center develops.
- **Policy 2.5: Dark sky.** Limit light pollution from outdoor sources, especially in rural, hillside and mountain areas, and open spaces, to maintain darkness for night sky viewing.

IMPLEMENTATION ACTIONS

- **Action 2.30.** Develop and regularly update parking management plans for all applicable areas along the 111 corridor.

Thresholds of Significance

For the purposes of this EIR, impacts on aesthetics are considered significant if adoption and implementation of the Palm Desert General Plan update would:

	Threshold	Determination
1.	Have a substantial adverse effect on a scenic vista	Less Than Significant
2.	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway	Less Than Significant
3.	Substantially degrade the existing visual character or quality of the site and its surroundings	Less Than Significant
4.	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area	Less Than Significant
5.	Cumulative effects	Less Than Significant

Impacts and Mitigation Measures

IMPACT 4.1-1 **Effects on Scenic Vistas.** *Adoption and implementation of the General Plan update would allow for new development in the Planning Area, including buildings, structures, paved areas, roadways, utilities, and other improvements, potentially altering scenic vistas in the Planning Area. However, adoption and implementation of the General Plan update policies and programs and compliance with the Palm Desert Municipal Code would result in a **less than significant impact**.*

Adoption and implementation of the General Plan update would include physical improvements to city transportation infrastructure including parking, roadways, traffic signals, and other improvements, potentially altering or obstructing scenic vistas from public spaces or along the identified vistas in the Planning Area. The General Plan update policies and programs would reduce impacts on scenic vistas at the programmatic level. Land Use & Community Character Element Policies 2.1, 2.3, and 2.4 require the City to consider and address preservation of scenic views. Environmental Resources Element Policy 2.1 would protect and preserve existing, signature views of the hills and mountains from the city. Policy 2.3 would continue to require the preparation of a grading analysis on hillside development to predetermine where development should occur so as to minimize the impact of new development on view of the city’s hillsides. Policy 2.4 would plan public facilities, roads, and private development to take advantage of the city’s mountain and hillside views, especially as the City Center develops.

In addition, Municipal Code Section 25.28.080, Scenic Preservation Overlay District, establishes development standards for scenic corridors. It is the purpose of the Scenic Preservation Overlay district to designate those scenic corridors that have a special aesthetic quality and to provide the opportunity for special standards for development in these areas to protect that quality.

Implementation of the General Plan update policies and compliance with the Municipal Code would reduce potential impacts on scenic vistas in the Planning Area because the City would identify scenic vistas and implement development standards of the underlying base district to ensure that the aesthetic quality of the scenic corridor is preserved. Therefore, the impact would be **less than significant**.

Mitigation Measures

None required.

IMPACT 4.1-2 **Damage to Scenic Resources within a State Scenic Highway.** *Adoption and implementation of the General Plan update would include new development in the Planning Area that could substantially damage scenic resources within a state scenic highway. However, adoption and implementation of the General Plan update policies and programs and compliance with the Palm Desert Municipal Code would result in a **less than significant** impact.*

Adoption and implementation of the General Plan update would revitalize the Highway 111 corridor into a downtown-type City Center. State of California designated state scenic highway State Route 74 and eligible state scenic highway Highway 111 would be protected by Policy 2.2 that would continue to minimize the impact on views by restricting new billboards along the city's roads and highways, Policy 2.1 that would protect and preserve existing, signature views of the hills and mountains from the city, and Policy 2.3 that would continue to require the preparation of a grading analysis on hillside development to predetermine where development should occur so as to minimize the impact of new development on view of the city's hillsides. In addition, Action 2.30 would develop and regularly update parking management plans for all applicable areas along the Highway 111 corridor.

Implementation of the General Plan update policies and implementation actions would reduce the impact associated with state scenic highways to a less than significant level because City regulations would ensure consideration of state scenic highways during review of future development projects. Therefore, the impact would be **less than significant**.

Mitigation Measures

None required.

IMPACT 4.1-3 **Degrade Existing Visual Character and Quality.** *Adoption and implementation of the General Plan update would include new development that could substantially degrade the existing visual character or quality within or surrounding the Planning Area. However, adoption and implementation of the General Plan update policies and compliance with the Palm Desert Municipal Code would result in a **less than significant** impact.*

Palm Desert is characterized as an urbanized collection of residential and commercial neighborhoods set against the backdrop of mountainous natural open space areas. Adoption and implementation of the General Plan update would not substantially alter the visual quality or character of any of these built-out neighborhoods or areas of the city.

Future land uses consistent with the General Plan update would allow new development in similar locations to, and with character similar to, the existing downtown, residential neighborhoods, commercial corridors, and industrial uses. Land Use & Community Character Element Policy 1.1 requires new development along the city's corridors to use design techniques to moderate height and use and ensure compatible fit with surrounding development. In addition, Land Use & Community Character Element Policies 2.3, 2.4, 2.5, and 2.6 and Environmental Resources Element Policies 2.1, 2.2, 2.3, 2.4, and 2.5 ensure future development will be consistent with the city's existing visual character.

Implementation of the General Plan update policies and compliance with the Municipal Code would reduce the impact associated with visual character and quality to a less than significant level because City regulations would ensure consideration of visual character during review of future development projects. Therefore, the impact would be **less than significant**.

Mitigation Measures

None required.

IMPACT 4.1-4 **Create New Sources of Substantial Light or Glare.** *Adoption and implementation of the General Plan update would include new development in the Planning Area that would create new sources of light and glare. However, implementation of the Palm Desert Municipal Code would result in a **less than significant** impact.*

Most of Palm Desert is urbanized and consists of typical sources of light and glare found in urban areas. Implementation of the General Plan update would include physical improvements to city transportation infrastructure including parking, roadways, and traffic signals. Land Use & Community Character Element Policy 2.6 would require all new streetlights in commercial areas to be pedestrian-oriented and scaled, attractively designed, compatible in design with other street furniture, and to provide adequate visibility and security in accordance with best practices for night sky protection. In addition, Environmental Resources Element Policy 2.5 would limit light pollution from outdoor sources, especially in rural, hillside and mountain areas, and open spaces, to maintain darkness for night sky viewing.

Municipal Code Chapter 24.16, Outdoor Lighting Requirements, defines outdoor lighting requirements for lighting systems and requires a site plan, fixture cutoffs, and a photometric plan illustrating that the proposed outdoor lighting system complies with the requirements outlined in the ordinance. These requirements would adequately ensure that light spillover and glare would not occur.

Implementation of the General Plan update policies and compliance with the Municipal Code would result in **less than significant** light and glare impacts.

Mitigation Measures

None required.

Cumulative Impacts and Mitigation Measures

The geographic context for the analysis of cumulative aesthetics impacts is the Planning Area and new development in surrounding cities affecting the Planning Area.

IMPACT 4.1-5 **Cumulative Effects on Aesthetics.** *Adoption and implementation of the General Plan update would not include new development that would substantially degrade scenic vistas from other nearby areas outside the Planning Area, damage scenic resources within a state scenic highway, existing visual character within or surrounding the Planning Area, or create new sources of light or glare. Therefore, cumulative aesthetic impacts would be **less than cumulatively considerable**.*

Scenic vistas in and around Palm Desert include the Santa Rosa, San Jacinto, and San Bernardino mountains. The General Plan update includes policies that would prevent development of hillside areas that are important visual resources seen from viewpoints in Palm Desert and surrounding cities. Policies described in Impact 4.1-1 would reduce the potential for new development in the Planning Area to obstruct views of the Santa Rosa, San Jacinto, and San Bernardino mountains from outside the Planning Area.

California designated state scenic highway State Route 74 and California eligible state scenic highway Highway 111 would be protected by the General Plan update. Policies described in Impact 4.1-2 would reduce the potential for new development in the Planning Area to damage scenic resources within a state scenic highway.

Visual character in Rancho Mirage and La Quinta adjacent to the Planning Area is similar to the visual character of Palm Desert. Projected regional growth in adjacent jurisdictions could potentially alter the existing visual character or degrade the inherent sense of place in certain areas. However, the General Plan update includes measures to avoid or reduce contributions to this potential significant cumulative impact. The visual character of the Planning Area, including its edges, would be protected through citywide development standards and other requirements noted in policies and implementation programs of the General Plan Update described in Impact 4.1-3.

Furthermore, Palm Desert is an urbanized area with numerous sources of light and glare. The cumulative effect of light and glare would be limited, since two or more projects would need to be built in proximity to each other to create a combined light and glare impact. These effects are inherently local and are related to the construction of specific buildings or groups of buildings. Therefore, adoption and implementation of the General Plan update would not include new development that would substantially degrade scenic vistas from other nearby areas outside the Planning Area, damage scenic resources within a state scenic highway, existing visual character within or surrounding the Planning Area, or create new sources of light or glare and cumulative impacts would be **less than cumulatively considerable**.

Mitigation Measures

None required.

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4.2. Agricultural and Forest Resources

Introduction

This chapter evaluates the potential environmental effects related to agricultural and forest resources associated with implementation of the General Plan update. The General Plan update Environmental Resources Element policies and the implementation actions presented in General Plan Chapter 12, Work Plan, guide, develop, and facilitate consideration of agricultural and forest resources during the City's development review process.

NOP Comments: No comment letters in response to the Notice of Preparation (NOP) addressed concerns related to agricultural or forest resources.

Reference Information: Information for this resource chapter is based on multiple references, including the General Plan Update Technical Background Report (TBR), the Farmland Mapping and Monitoring Program (FMMP), and other publicly available documents. The TBR is attached to this document as **Appendix A**. This EIR, including the TBR, is also available electronically on the City's website (<http://www.cityofpalmdesert.org/our-city/general-plan-update>).

Environmental Setting

Section 3 of the TBR identifies existing conditions, regulations, and key agricultural resource issues in Palm Desert's Planning Area. Section 3 is summarized below.

Agricultural operations are a significant feature in the economy of Riverside County and the Coachella Valley. According to the County's 2012 Coachella Valley Acreage and Agricultural Crop Report, the estimated gross value of agricultural production in Riverside County for 2012 was over \$1.2 billion. This is a \$188.6 million increase over the 2010 gross valuation. Of this valuation, approximately \$544 million of agricultural production occurred in the Coachella Valley.

Palm Desert is an incorporated charter city that is predominantly built out with existing urban uses. While the city is nearly fully developed, the Riverside County Land Information System (RCLIS) identifies farmland in the city limits and within the adopted Sphere of Influence (SOI) (see **Figure 3-1**). The Planning Area, which is made up of the city boundary and the Sphere of Influence, does not contain any land designated for agricultural uses or land zoned for agricultural uses (TBR).

Farmland Mapping and Monitoring Program

As identified by the California Department of Conservation's (2014) Farmland Mapping and Monitoring Program (FMMP), there is no Prime Farmland or Farmland of Statewide Importance in the Planning Area. However, the Planning Area does contain Unique Farmland and Farmland of Local Importance. The portion identified as Unique Farmland is an Armstrong Growers Nursery Facility located off Hidden River Road. Of the two areas of Farmland of Local Importance, the portion located within the city limits appears to have been used for agricultural purposes at one time and is now in the process of being converted into a combined Cal State and UC Riverside branch campus and residential subdivisions. The other area is located within the City's Sphere of Influence and contains vacant land that at one time appeared to be used for row crops of some sort.

A full discussion of soils in the Planning Area is contained in Chapter 4.7, Geology and Soils. According to the Storie Index rating, 1,447 acres of Grade 1 excellent farmland in the Planning Area is considered Prime Farmland by LAFCo. In addition, 1,313 acres of Grade 1 excellent farmland are in the city limits, representing 9 percent of the total city, and 134 acres of Grade 1 excellent farmland are in the SOI, representing 37 percent of the total Sphere of Influence. Although both the FMMP and LAFCo (based on Storie Index rating system) recognize important farmland and Prime Farmland, respectively, within the Planning Area, no land uses have been identified or zoned for agricultural production by the City of Palm Desert.

Williamson Act Contract Lands

As of 2009, there were 59,307 acres of land in Riverside County under Williamson Act contract (DOC 2010). An extension of the Williamson Act, called the Farmland Security Zone program, permits farmers and ranchers to garner an additional 35 percent property tax reduction by keeping their land in agriculture for a minimal initial term of 20 years; however, the County of Riverside has not adopted the program. There are no Williamson Act contracted lands in the Planning Area.

Regulatory Setting

The regulatory setting for agricultural and forest resources is discussed in detail in **Appendix A**. Following is a summary of key regulations affecting agricultural resources in Palm Desert.

Federal

No federal plans, policies, regulations, or laws related to agricultural resources apply to the Planning Area.

State

California Environmental Quality Act

The California Environmental Quality Act (CEQA) (Public Resources Code Section 21060.1) defines agricultural land as follows:

Agricultural land means prime farmland, farmland of statewide importance, or unique farmland, as defined by the United States Department of Agriculture land inventory and monitoring criteria, as modified for California.

Farmland Mapping and Monitoring Program

Under CEQA, the lead agency is required to evaluate agricultural resources in environmental assessments at least in part based on the FMMP. The state's system was designed to document how much agricultural land in California was being converted to nonagricultural land or transferred into Williamson Act contracts.

Williamson Act

The Williamson Act is an agricultural conservation tool. Under the Williamson Act, local governments can enter into contracts with private property owners to protect land for agricultural and open space purposes. As of 2012, there are no Williamson Act contracts in the Planning Area.

LAFCo Agricultural and Open Space Land Conservation

Land in the SOI but outside of the city limits will need to be annexed prior to development consistent with the General Plan. The Riverside Local Agency Formation

Commission (LAFCo) must approve annexation requests by the City and must consider the potential for agricultural land conversion.

Local

Riverside County General Plan

The following policies apply to properties designated as Agriculture on Riverside County's (2008) General Plan and area plan land use maps, including land currently within the City's sphere of influence, but outside of the City's corporate boundaries.

- **LU 16.1.** Encourage retaining agriculturally designated lands where agricultural activity can be sustained at an operational scale, where it accommodates lifestyle choice, and in locations where impacts to and from potentially incompatible uses, such as residential uses, are minimized, through incentives such as tax credits.
- **LU 16.2.** Protect agricultural uses, including those with industrial characteristics (dairies, poultry, hog farms, etc.) by discouraging inappropriate land division in the immediate proximity and allowing only uses and intensities that are compatible with agricultural uses.
- **LU 16.4.** Encourage conservation of productive agricultural lands. Preserve prime agricultural lands for high-value crop production.
- **LU 16.5.** Continue to participate in the California Land Conservation Act (the Williamson Act) of 1965.
- **LU 16.6.** Require consideration of State agricultural land classification specifications when a 2½-year Agriculture Foundation amendment to the General Plan is reviewed that would result in a shift from an agricultural to a non-agricultural use.
- **LU 16.7.** Adhere to Riverside County's Right-to-Farm Ordinance.
- **LU 16.8.** Support and participate in ongoing public education programs by organizations such as the County Agricultural Commissioner's Office, University of California Cooperative Extension, Farm Bureau, and industry organizations to help the public better understand the importance of the agricultural industry.
- **LU 16.10.** Allow agriculturally related retail uses such as feed stores and permanent produce stands in all areas and land use designations. It is not the County's intent pursuant to this policy to subject agricultural related uses to any discretionary permit requirements other than those in existence at the time of adoption of the General Plan. Where a discretionary permit or other discretionary approval is required under the County zoning ordinances in effect as of December 2, 2002, then allow such retail uses with the approval of such a discretionary permit or other approval. The following criteria shall be considered in approving any discretionary permit or other discretionary approval required for these uses:
 - a. Whether the use provides a needed service to the surrounding agricultural area that cannot be provided more efficiently within urban areas or requires location in a non-urban area because of unusual site requirements or operational characteristics;

- b. Whether the use is sited on productive agricultural lands and less productive land is available in the vicinity;
 - c. Whether the operational or physical characteristics of the use will have a detrimental impact on water resources or the use or management of surrounding properties within at least 1/4 mile radius;
 - d. Whether a probable workforce is located nearby or is readily available.
- **LU-16.11.** The County shall pursue the creation of new incentive programs, such as tax credits, that encourage the continued viability of agricultural activities.

Palm Desert Municipal Code

The following Municipal Code provisions address the cultural aspects of previous agricultural uses as well as requirements for urban agriculture.

Section 29.40.010, Landmark Designation Criteria. A cultural resource may be designated as a landmark by the City Council if, with written consent of property owner, after completion of a certified survey and upon the recommendation of the committee, it is determined that it retains integrity as defined in Chapter 29.20 and at a local, state, regional, or national level:

- F. Reflects distinctive examples of community planning or significant development patterns, including those associated with different eras of settlement and growth, agriculture, or transportation.

Impacts and Mitigation Measures

Analysis Approach

The analysis of impacts is based on the likely consequences of adoption and implementation of the General Plan update, compared to existing conditions.

Draft General Plan Update Policies and Implementation Actions

Updated General Plan policies and implementation actions that protect and support agriculture and the City's environment include:

Policies

Environmental Resources Element

- **Policy 5.10: Urban forest.** Protect the city's healthy trees and plant new ones to provide shade, increase carbon sequestration and purify the air.

Implementation Actions

Health & Wellness Element

- **Action 5-07.** Work to establish Community Supported Agriculture programs to serve Palm Desert residents.
- **Action 5-08.** Develop incubators for medical and agriculture industries.

Environmental Resources Element

- **Action 6-11.** Develop a comprehensive community agriculture program that includes schools and parks.

Land Use Element

While not directly related to agriculture and forest uses, the proposed General Plan includes a potential for golf course reuse that may allow community scale agricultural use.

8.10 Adaptive reuse of golf courses. Support the conversion of struggling golf courses into new, complementary uses. Changes of use will be considered based on their merits and benefits to the surrounding community and city at large and must demonstrate excellence in design and connectivity. The City will consider uses such as:

- Active recreational space,
- Natural habitat restoration,
- Passive open space and trails,
- Community scale agriculture,
- Neighborhood supportive commercial and service uses,
- High quality neighborhoods.

Thresholds of Significance

For the purposes of this EIR, impacts on agricultural or forest resources are considered significant if adoption and implementation of the General Plan update would:

Threshold	Determination
1. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use	No Impact
2. Conflict with existing zoning for agricultural use or a Williamson Act contract	No Impact
3. Conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))	No Impact
4. Result in the loss of forestland or conversion of forestland to non-forest use	No Impact
5. Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forestland to non-forest use	No Impact
6. Cumulative effects	Less than Significant

Impacts and Mitigation Measures

IMPACT 4.2-1 **Convert Farmland or Forestland and Conflict with Existing Zoning for Agricultural or Forest Use.** *Adoption and implementation of the General Plan update could result in new development and redevelopment of property throughout the Planning Area. There is no Prime Farmland or Farmland of Statewide Importance in the Planning Area. The Planning Area does contain Unique Farmland and Farmland of Local Importance; however, the land is not used as farmland. Therefore, **no impact** will occur.*

As identified by the Farmland Mapping and Monitoring Program (FMMP), there is no Prime Farmland or Farmland of Statewide Importance in the Planning Area. However, the Planning Area does contain Unique Farmland and Farmland of Local Importance. The portion identified as Unique Farmland is an Armstrong Growers Nursery Facility located off Hidden River Road. Of the two areas of Farmland of Local Importance, the portion located within the city limits appears to have been used for agricultural purposes at one time and is now in the process of being converted into a combined Cal State and UC Riverside branch campus and residential subdivisions. The other area is located within the City’s Sphere of Influence and contains vacant land that at one time appeared to be used for row crops. These two areas are currently zoned Residential and Public Facility. The proposed project includes a policy that would allow existing golf courses to be used for community scale agriculture (community gardens, boutique agriculture, etc.). As this land is currently developed as a golf course it is not designated agriculture and therefore does not result in the conversion of agricultural land to urban uses. The Planning Area does not contain any Williamson Act contracted lands or forestland.

Since the land identified as Unique Farmland and Farmland of Local Importance is not currently being used for agricultural uses, is not zoned for agricultural use, and the land use designations on these parcels will not change as a result of the proposed project. The General Plan update would not convert any agricultural lands. Furthermore, no land uses have been identified or zoned for agricultural production by the City of Palm Desert. Therefore, **no impacts** would occur.

Mitigation Measures

None required.

Cumulative Impacts and Mitigation Measures

The geographic context for cumulative impacts on agricultural and forest resources is future development in surrounding cities affecting the Planning Area.

IMPACT 4.2-5 **Cumulative Effects on Agricultural and Forest Resources.** *Adoption and implementation of the General Plan update in addition to anticipated future development in surrounding cities could cause a substantial change in the significance of agricultural and forest resources as defined in CEQA Guidelines Section 15064.5. The loss of some agricultural resources may be prevented through implementation of CEQA review and surrounding city policies, which would not, however, ensure that these resources can be protected and preserved. This impact is considered **less than cumulatively considerable**.*

Agricultural resources in surrounding cities have similar soil types. Potential future development in the surrounding region could include conversion of farmland. Although some agricultural resources may be listed as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance or under a Williamson Act contract, the listing itself does not ensure protection of the resource. Future discretionary development in surrounding cities would be subject to the requirements of CEQA. The cumulative effect of future development would be the continued loss of farmland and local food sources. Implementation of the General Plan update would be **less than cumulatively considerable**.

Mitigation Measures

None required.

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4.3. Air Quality

Introduction

This resource chapter of the EIR describes the existing air quality condition within Palm Desert and evaluates potential air quality effects associated with implementation of the proposed project. Information in this section is based in part on data from the South Coast Air Quality Management District (SCAQMD) and the California Air Resources Board (CARB).

Reference Information: Information for this resource chapter is based on numerous references, including the City of Palm Desert’s General Plan Technical Background Report (TBR), traffic report, and other publicly available documents. The TBR is attached as **Appendix 4.0**. This EIR, including the TBR, is also available electronically on the City’s website (<http://www.cityofpalmdesert.org/our-city/general-plan-update>).

Environmental Setting

Section 4 of **Appendix 4.0** (*Existing Conditions Report*) describes the natural factors (i.e., topography, climate, and meteorology) that affect air quality in the region; current regional air quality conditions in the project area; and the federal, state, and local air quality regulatory framework. A summary of that information is provided below.

Palm Desert is located in the Salton Sea Air Basin (Basin) and the South Coast Air Quality Management District (SCAQMD) is the air pollution control district principally responsible for comprehensive air pollution control in the Basin.

- The Basin includes the central portion of Riverside County and all of Imperial County to the southeast. The regional climate within the basin is typical of a desert regime, with large daily and seasonal fluctuations in temperature and relatively high annual average temperatures. Temperature highs frequently exceed 100 degrees Fahrenheit (°F) during the summer months. During the winter, temperatures can drop to near freezing. Throughout the year, average daily relative humidity is low, as are average rainfall values. Daytime winds during the summer (May through October) are predominantly from the south-southeast. This differs from daytime winds during the wintertime (November through April), which demonstrates a strong split between winds from the northwest and from the south-southeast. Evening and nighttime winds are almost exclusively from the northwest year round. The diurnal shift in wind directions is typical of wind patterns found near land-sea transitions.
- CARB and the US Environmental Protection Agency (EPA) currently focus on the following criteria air pollutants (CAP) as indicators of ambient air quality: ozone, particulate matter (PM₁₀ and PM_{2.5}), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and lead (Pb).
- Toxic air contaminants (TAC) are airborne substances that are capable of causing chronic (i.e., of long duration) and acute (i.e., severe but of short duration) adverse effects on human health. They include both organic and inorganic chemical substances that may be emitted from a variety of common sources including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. While

Palm Desert does not contain any large scale sources of TACs, it does contain some of these “common sources” (such as gas stations), although an individual use’s potential to generate TACs can only be determined on a case-by-case basis. Toxic air contaminants are different than the “criteria” pollutants previously discussed in that ambient air quality standards have not been established for them, largely because there are hundreds of air toxins and their effects on health tend to be local rather than regional.

- Current federal and State standards for criteria pollutants, as well as a summary of recent exceedances of these standards at local air quality monitoring stations, are provided in **Appendix 4.0**. The Riverside County portion of the Salton Sea Air Basin (Basin), in which Palm Desert is located, is a non-attainment area for both the federal and state standards for ozone and PM₁₀. The area’s attainment status for all applicable criteria pollutants is listed below.
 - Ozone is a photochemical oxidant and the primary component of smog. It is formed through complex chemical reactions between precursor emissions of reactive organic gases (ROG) and oxides of nitrogen (NO_x) in the presence of sunlight. Palm Desert is located in both a federal and state non-attainment area for ozone, as local air quality conditions exceed the federal 8-hour ozone standard and the state 1-hour and 8-hour ozone standards. It should be noted that the presence of ozone in the Coachella Valley is predominately due to transport of emissions from the South Coast Air Basin to the west, rather than to activity within the local Basin, and maximum ozone concentrations in recent years have been below the health advisory level.
 - Palm Desert is located in both a federal and state non-attainment area for PM₁₀.
 - Palm Desert is located in a federal unclassified/attainment area and state attainment area for PM_{2.5}.
 - Palm Desert is located in an area that meets both federal and state CO standards.
 - Palm Desert is located in a federal unclassified/attainment area and state attainment area for NO₂.
 - Palm Desert is located in an area that meets both federal and state SO₂ standards.
 - Palm Desert is located in both a federal and state attainment area for lead.

Ambient air quality standards have been established to represent the levels of air quality considered sufficient, with an adequate margin of safety, to protect public health and welfare. They are designed to protect that segment of the public most susceptible to respiratory distress, such as children under 14; the elderly over 65; persons engaged in strenuous work or exercise; and people with cardiovascular and chronic respiratory diseases. The majority of sensitive receptor locations in Palm Desert are therefore residences, schools and nursing homes. The location of existing

land uses in Palm Desert are described in Section 10, *Land Use and Planning*, of **Appendix 4.0**.

Regulatory Setting

Federal, state, and local plans, policies, laws, and regulations provide a framework for addressing aspects of air quality that would be affected by implementation of the *City of Palm Desert's General Plan*. The regulatory setting for air quality is discussed in detail in Appendix 4.0. A summary of that information as it relates to the impact analysis is provided below. In addition, the current federal and state ambient air quality standards are included in **Table 4.3-1**.

- The federal and state governments have been empowered by the federal and state Clean Air Acts to regulate the emission of airborne pollutants. The EPA is the federal agency designated to administer air quality regulation, while the Air Resources Board (CARB) is the state equivalent.
- SCAQMD requires all projects in the air basin to implement Rules 403 (Fugitive Dust), Rule 403.1 (Supplemental Fugitive Dust Control Requirements for Coachella Valley Sources), Rule 401 (Visible Dust), and Rule 1113 (Architectural Coatings) during construction activities.
- SCAQMD requires all projects to comply with Rule 402 (Nuisance) during both construction and operational activities.
- Under state law, the SCAQMD is required to prepare an overall plan for air quality improvement, known as the Air Quality Management Plan (AQMP), for the South Coast Air Basin, and the Riverside County portion of the Salton Sea Air Basin. AQMPs are required to be updated every three years. Each iteration of the plan is an update of the previous plan and has a 20-year horizon.
- CARB developed the *Air Quality and Land Use Handbook: A Community Health Perspective* to guide the siting and design of new land uses in order to avoid exposing sensitive receptors to toxic air contaminant emissions (CARB 2005).
- Pursuant to the federal Clean Air Act (CAA) of 1970, the EPA established national ambient air quality standards (NAAQS). The NAAQS were established for six major criteria pollutants, which are those pollutants for which the federal and state governments have established AAQS, or criteria, for outdoor concentrations in order to protect public health. The current AAQS plus the California standards (which are generally more stringent than federal standards) are shown in **Table 4.3-1**.

Table 4.3-1. Current Federal and State Ambient Air Quality Standards

Pollutant	Federal Standard	California Standard
Ozone	0.070 ppm (8-hr avg)	0.09 ppm (1-hr avg)
		0.07 ppm (8-hr avg)
Carbon Monoxide	9.0 ppm (8-hr avg)	9.0 ppm (8-hr avg)
	35.0 ppm (1-hr avg)	20.0 ppm (1-hr avg)

Table 4.3-1, continued

Pollutant	Federal Standard	California Standard
Nitrogen Dioxide	0.053 ppm (annual avg)	0.18 ppm (1-hr avg)
		0.030 ppm (annual avg)
Sulfur Dioxide	0.14 ppm (24-hr avg)	0.04 ppm (24-hr avg)
	0.075 ppm (1-hr avg)	0.25 ppm (1-hr avg)
Lead	0.15 µg/m ³ (3-month avg)	1.5 µg/m ³ (30-day avg)
Particulate Matter (PM ₁₀)	150 µg/m ³ (24-hr avg)	20 µg/m ³ (annual avg)
		50 µg/m ³ (24-hr avg)
Particulate Matter (PM _{2.5})	12 µg/m ³ (annual avg)	12 µg/m ³ (annual avg)
	35 µg/m ³ (24-hr avg)	

ppm= parts per million

µg/m³ = micrograms per cubic meter

Source: California Air Resources Board, <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>, 2015.

Draft City of Palm Desert’s General Plan Goals and Policies that Reduce Potential Impacts on Air Quality

Policies and goals from the Health and Wellness, Mobility, and Environmental Resources Elements that would mitigate potential impacts on air quality are described below.

Health and Wellness Element

Goal 6: Air Quality. A city with clean, healthy air.

- **Policy 6.1: Near-source air quality impacts.** Avoid locating new air quality-sensitive uses (schools, child care centers, senior centers, medical facilities, and residences) in proximity to sources of localized air pollution (e.g., Interstate 10, high traffic roads, certain industrial facilities), and vice versa. Where such uses are located within 500 feet of each other, require preparation of a health impact assessment (HIA) or similarly effective health analysis, as part of the CEQA environmental review process, to analyze the significance of the health impact on sensitive land uses and incorporate project-specific mitigation measures to reduce potential impacts. For sensitive land uses that cannot be avoided within 500 feet of sources of localized air pollution, potential design mitigation options include:
 - Providing residential units with individual HVAC systems in order to allow adequate ventilation with windows closed;
 - Locating air intake systems for heating, ventilation, and air conditioning (HVAC) systems as far away from existing air pollution sources as possible;
 - Using HEPA air filters in the HVAC system and developing a maintenance plan to ensure the filtering system is properly maintained; and

- Utilizing only fixed windows next to any existing sources of pollution.
- Using sound walls, berms, and vegetation as physical barriers.
- Notifying new potential home buyers of risks from air pollution.
- **Policy 6.2: Healthy buildings.** Require new development to meet the State’s Green Building Code standards for indoor air quality performance, and promote green building practices that support “healthy buildings,” such as low VOC materials, environmental tobacco smoke control, and indoor air quality construction pollution prevention techniques.
- **Policy 6.3: Sensitive receptors.** Avoid the siting of new projects and land uses that would produce localized air pollution in a way that would adversely impact existing air quality-sensitive receptors including schools, childcare centers, senior housing, and subsidized affordable housing. The recommended minimum distance separating these uses should be 500 feet. When a minimum distance of 500 feet cannot be avoided, a health impact assessment (HIA) shall be completed in compliance with Policy 5.1.

Environmental Resources Element

Goal 8: Air Quality. A city with limited sources of air pollution.

- **Policy 8.1: Sources of Pollutants.** Minimize the creation of new sources of air pollutants within the city.
- **Policy 8.2: Land use patterns.** Promote compact, mixed-use, energy efficient and transit-oriented development to reduce air pollutants associated with energy and vehicular use.
- **Policy 8.3: Single-occupant vehicle trip reductions.** Provide disincentives for single-occupant vehicle trips through parking supply and pricing controls in areas where parking supply is limited and alternative transportation modes are available.
- **Policy 8.4: Electric vehicles.** Encourage the use of electric vehicles (EV), including golf carts and Neighborhood Electric Vehicles (NEV), by encouraging developments to provide EV and NEV charging stations, street systems, and other infrastructure that support the use of EVs. Similarly, encourage the use of renewable energy sources to power EV plug-in stations.
- **Policy 8.5: Construction-related emissions.** Require construction activities, including on-site building and the transport of materials, to limit emissions and dust.
- **Policy 8.6: Traffic congestion.** In the instance where a significant health hazard may be created, consider designs for new intersections to function in a manner that reduces air pollutant emissions from stop and start and idling traffic conditions.
- **Policy 8.7: Transportation demand management.** Encourage employers to provide transit subsidies, bicycle facilities, alternative work schedules, ridesharing, telecommuting, work-at-home programs, employee education and preferential parking for carpools/vanpools.

- **Policy 8.8: Transportation management associations.** Encourage commercial, retail and residential developments to create and participate in transportation management associations. 8.9 Deliveries. Encourage business owners to schedule deliveries at off-peak traffic periods.

Mobility Element

Goal 1: Livable Streets. A balanced transportation system that accommodates all modes of travel safely and efficiently.

- **Policy 1.1: Complete Streets.** Consider all modes of travel in planning, design, and construction of all transportation projects to create safe, livable, and inviting environments for pedestrians, bicyclists, motorists and public transit users of all ages and capabilities.
- **Policy 1.2: Transportation System Impacts.** Evaluate transportation and development projects in a manner that addresses the impacts of all travel modes on all other travel modes through the best available practices.
- **Policy 1.3: Facility Service Levels.** Determine appropriate service levels for all modes of transportation and develop guidelines to evaluate impacts to these modes for all related public and private projects.
- **Policy 1.4: Transportation Improvements.** Consider improvements that add roadway or intersection capacity for vehicles only after considering improvements to other modes of travel.
- **Policy 1.5: Transportation Network Consistency.** Perform a formal evaluation of any transportation projects to verify consistency with the goals and policies in the General Plan prior to approving funding for those projects.
- **Policy 1.7: System Efficiency.** Prioritize transportation systems management (TSM) strategies such as signal coordination, signal retiming, and other applicable techniques to limit unnecessary delay and congestion for vehicles.

Goal 3: Pedestrian Facilities. Integrated pedestrian pathways that connect residences, businesses, and educational and community uses.

- **Policy 3.1: Pedestrian Network.** Provide a safe and convenient circulation system for pedestrians that include sidewalks, crosswalks, place to sit and gather, appropriate street lighting, buffers from moving vehicles, shading, and amenities for people of all ages.

Goal 4: Bicycle Networks. Well-connected bicycle network that facilitates bicycling for commuting, school, shopping, and recreational trips.

- **Policy 4.1: Bicycle Networks.** Provide bicycle facilities along all roadways to implement the proposed network of facilities outlined in the General Plan.

Goal 8: Transportation Innovation. A transportation system that leverages emerging technologies to improve mobility for residents, employees, and visitors.

- **Policy 8.1: Alternative Fueled City Owned Vehicles.** Encourage the purchase of City vehicles which use fuel sources other than fossil fuels while considering factors such as cost effectiveness, environmental impacts, and the availability of local maintenance.

- **Policy 8.6: Electric Vehicles.** Encourage the use of electric vehicles (EV), including golf carts and Neighborhood Electric Vehicles (NEV) by supporting the use of EVs and encouraging NEV charging stations to be powered with renewable resources.

Impacts and Mitigation Measures

The following section describes the thresholds, impacts, and mitigation measures associated with the project.

Thresholds

Pursuant to the *State CEQA Guidelines*, air quality impacts related to the proposed General Plan would be significant if the General Plan would:

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

Localized Significance Thresholds

In addition to the above thresholds, the SCAQMD has developed Localized Significance Thresholds (LST) in response to the Governing Board's Environmental Justice Enhancement Initiative (1-4), which was prepared to update SCAQMD's CEQA Air Quality Handbook, which was in turn developed and approved by the SCAQMD in 1993 to provide guidance in preparing air quality analyses. The impact analysis below is consistent with this guidance.

LSTs were devised in response to concern regarding exposure of individuals to criteria pollutants in local communities. LSTs represent the maximum emissions from a project that will not cause or contribute to an air quality exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest sensitive receptor, taking into consideration ambient concentrations in each source receptor area (SRA), project size, distance to the sensitive receptor, and other factors. However, LSTs only apply to emissions within a fixed stationary location. LSTs have been developed for NO_x, CO, PM₁₀, and PM_{2.5}. LSTs do not apply to on-site mobile sources such as cars on a roadway (SCAQMD 2009). As such, LSTs are not typically a

consideration for project operation since the majority of operational emissions are usually generated by cars on roadways.

LSTs have been developed for emissions within construction areas up to five acres in size. The SCAQMD provides lookup tables for sites that measure one, two, or five acres.

Methodology

Short-Term Emissions Methodology

Emissions from construction activities represent temporary impacts that are typically short in duration, depending on the size, phasing, and type of project. Air quality impacts can nevertheless be acute during construction periods, resulting in significant localized impacts to air quality. SCAQMD has adopted significance thresholds for construction-related emissions. However, construction-related emissions are speculative at the General Plan level because such emissions are dependent on the characteristics of individual development projects. Nonetheless, because construction associated with buildout under General Plan Update would generate temporary criteria pollutant emissions, primarily due to the operation of construction equipment (e.g., PM₁₀ from grading) and truck trips, a qualitative analysis is provided below.

Long-Term Emissions Methodology

The methodology for determining the significance of air quality impacts is to compare 2015 existing conditions to the General Plan Update conditions in the year 2040, as required in CEQA Guidelines Section 15126.2(a). State and federal clean air laws require that emissions of pollutants for which federal or state ambient air quality standards are violated be reduced from current levels. Therefore, the project's long-term impacts to air quality is considered significant if the project results in mobile source emissions that significantly exceed existing levels. In this case, the pollutants of concern are ozone precursors (NO_x and ROG) and particulate matter (PM_{2.5} and PM₁₀), as these are the primary pollutants associated with land development and vehicle transportation. However, similar to construction-related emissions, operational emissions are speculative at the General Plan level because such emissions are dependent on the characteristics of individual projects. Nonetheless, because operation associated with buildout under the General Plan Update would generate operational criteria pollutant emissions, a qualitative analysis is provided below. Each impact below is given a descriptive title, with the CEQA thresholds to which it relates listed in parentheses.

Impacts and Mitigation Measures

IMPACT 4.3-1	Consistency with Air Quality Plans (Thresholds 1, 2, 3). <i>Adoption and implementation of the City of Palm Desert's General Plan does not include any specific development proposals. However, it would allow for new development and redevelopment of property throughout the planning area, which could result in air contaminant emissions associated with construction and operation of future and existing land uses that would affect how the region attains and maintains air quality standards. Adoption and implementation of the City of Palm Desert's General Plan policies and programs would comply with the regional Air Quality Management Plan (AQMP) and would result in a less than significant impact.</i>
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The discussions that follow address consistency of the proposed project with the growth and emissions forecasts upon which the AQMP is based, and with applicable AQMP control measures.

Consistency with AQMP Growth Forecast

Vehicle use, energy consumption, and associated air pollutant emissions are directly related to population growth. A project may be inconsistent with the AQMP if it would generate population, housing or employment growth exceeding the forecasts used in the development of the AQMP. According to Southern California Association of Governments (SCAG) growth forecasts in their Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), Palm Desert will have a resident population of 61,700 in 2040. Development facilitated by the proposed General Plan, including development proposed as part of the University Neighborhood Specific Plan, would add an estimated 11,905 permanent residents between 2012 and 2040, bringing the city's total population to 61,691, which is within SCAG's 2040 population forecasts of 61,700 from the 2016 RTP/SCS (SCAG 2016) (see Section 4.11, Population and Housing, for further detail). Therefore, the proposed General Plan would be consistent with SCAG projections.

Consistency with AQMP Control Measures

Consistency with the 2012 AQMP is also a function of consistency with applicable AQMP control measures. The AQMP includes specific control measures to reduce air pollutant emissions in order meet federal and state air quality standards. One of the most important methods the AQMP relies on to achieve its goals is the use of emission control measures, many of which were established as part of the previous AQMP adopted in 2007. Between 2008 and 2011, twelve control measures or rules were adopted or amended by the SCAQMD. Adoption of these measures was intended to result in a reduction of 22.5 tons per day of VOC, 7.6 tons per day of NO_x, 4.0 tons per day of SO_x, and 1.0 ton per day of PM_{2.5} by 2014. Additional reductions from these adopted rules were to be achieved by 2023. Every 3 years, the SCAQMD prepares a new AQMP, updating the previous plan and having a 20-year horizon. The SCAQMD adopted the Final 2012 AQMP on December 7, 2012 and forwarded it to the CARB for review in February 2013. Although the control measures contained in the Final 2012 AQMP apply specifically to the South Coast Air Basin, they would also contribute toward the attainment of air quality standards for ozone in the Coachella Valley, due to the air pollution pathway discussed under Current Ambient Air Quality. These control measures for ozone can be categorized as follows:

- 8-hour Ozone Measures. Measures that provide for necessary actions to maintain progress towards meeting the 2023 8-hour ozone NAAQS, including regulatory measures, technology assessments, key investments, and incentives.
- Transportation Control Measures. Measures generally designed to reduce vehicle miles travelled (VMT) as included in SCAG's 2012 Regional Transportation Plan.

Many of the control measures proposed are not regulatory in form, but instead focus on incentives, outreach, and education to bring about emissions reductions through voluntary participation and behavioral changes needed to complement regulations.

Currently, the SCAQMD staff is in the process of developing the 2016 AQMP, which was released to the public for review and comment on June 30, 2016 and will be a comprehensive and integrated Plan primarily focused on addressing the ozone standards. The Plan will be a regional and multi-agency effort (SCAQMD, CARB, SCAG, and EPA). State and federal planning requirements include developing control strategies, attainment demonstrations, reasonable further progress, and maintenance plans. The 2016 AQMP will incorporate the latest scientific and technical information and planning assumptions, including the latest applicable growth assumptions, Regional Transportation Plan/Sustainable Communities Strategy, and updated emission inventory methodologies for various source categories.

The 2012 AQMP emission control measures most applicable to the proposed project are the transportation control measures (TCMs), which are based on SCAG’s adopted 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and 2011 Federal Transportation Improvement Program (FTIP). The measures proposed improve emissions from every component of the regional multi-modal transportation system, including:

- Active transportation
- Goods movement
- Highways
- Aviation and airport ground access
- Transit
- Arterials
- Passenger and high-speed rail
- Operations and maintenance
- Transportation demand management (TDM)
- Transportation system management (TSM)

Table 4.3-2 lists applicable TCMs and the corresponding Palm Desert General Plan policies that support each TCM.

Table 4.3-2 Palm Desert General Plan Consistency with SCAQMD Transportation Control Measures

Transportation Control Measure	Palm Desert General Plan Policy
<p>Section 108 (f) (A)(i). Programs for improved use of public transit</p>	<p>Land Use and Community Element</p> <p>Goal 5. Centers. A variety of mixed use, urban centers throughout the city that provide opportunities for shopping, recreation, commerce, employment and arts and culture.</p> <p>Policy 5.4 Access to transit. Encourage the development of commercial and mixed use centers that are located on existing or planned transit stops in order to facilitate and take advantage of transit service, reduce vehicle trips and allow residents without private vehicles to access services.</p> <p>Mobility Element</p> <p>Goal 5. Transit Facilities. An integrated transportation system that supports opportunities to use public and private transit systems.</p> <p>Policy 5.1 Transit Service. Promote public transit service in areas of the City with appropriate levels of density, mix of residential and employment uses, and connections to bicycle and pedestrian networks.</p> <p>Policy 5.2 Bus Stop Location. Regularly review bus stop locations in conjunction with Sunline Transit to ensure that bus stops reflect current land use and transportation networks.</p> <p>Policy 5.3 Private Transit. Encourage the implementation of private transit services in a manner which minimizes negative impacts on public transportation facilities.</p> <p>Policy 5.4 Senior Transit. Encourage existing para transit services in the City to provide transit access for seniors and persons with disabilities.</p> <p>Policy 5.5 Private Development Access to Transit. Review development proposals to limit impacts on existing or proposed transit facilities.</p> <p>Policy 5.6 Safe Routes to Transit. Regularly review transit stop locations to maintain safe access for pedestrians and bicyclists.</p> <p>Goal 6. Sustainable Transportation. Sustainable Transportation. A transportation network that can be built, operated, and maintained within the City's resource limitations.</p> <p>Policy 6.1 Fair Share Costs. Require that new development pay for its fair share of construction costs related to new and/or upgraded infrastructure needed to accommodate the development.</p> <p>Policy 6.2 Multi-Modal Impacts. Develop and apply funding mechanisms that require the fair share contributions for</p>

Table 4.3-2, continued

Transportation Control Measure	Palm Desert General Plan Policy
	<p>impacts to all modes of transportation associated with development or redevelopment.</p> <p>Policy 6.3 Operations and Maintenance Costs. Evaluate potential changes in Citywide operations and maintenance costs for transportation facilities prior to the construction of any new facilities.</p> <p>Policy 6.4 Development Contribution to Operations and Maintenance Costs. Consider funding strategies that require private development to contribute to the ongoing operations and maintenance of transportation infrastructure within the City.</p> <p>Policy 6.5 Cap-and-Trade Funds. Take advantage of funds from the State’s cap-and trade program to apply to projects and programs in the City, when possible.</p> <p>Goal 7. Monitoring. Monitoring. A process to regularly monitor the performance of City transportation facilities.</p> <p>Policy 7.1 Ongoing Monitoring. Regularly monitor the performance of all major transportation facilities within the City including major roadways, pedestrian facilities, bicycle lanes, and transit stops.</p> <p>Policy 7.2 Safety Review. Continue to coordinate with law enforcement agencies to identify major accident locations including those affecting vehicles, bicyclists, and pedestrians. Regularly publish reports regarding traffic safety conditions in the city.</p> <p>Goal 9. Regional Coordination. The City transportation system operates as an integral element of the larger regional system.</p> <p>Policy 9.2 Regional Transit. Collaborate with RCTC, CVAG, and Sunline Transit in the planning, design, and construction of regional transportation facilities, emphasizing the construction of a Metrolink station in Palm Desert. Policy 9.5 Regional Priorities. Identify and prioritize desired regional roadway, transit, and non-motorized improvements to focus the City’s outreach with agencies such as Caltrans, CVAG, RCTC, and elected officials.</p>
<p>Section 108 (f) (A)(v). Traffic flow improvement programs that achieve emission reductions;</p>	<p>Land Use and Community Element</p> <p>Goal 6. Corridors and Connectivity. A network of transportation and open space corridors throughout the city that provides a high level of connectivity for vehicles, bicyclists, and pedestrians.</p> <p>Policy 6.3 Connections between development projects. Require the continuation of the street network between adjacent development projects and discourage the use of cul-de-sacs except where necessary because connections cannot be</p>

Table 4.3-2, continued

Transportation Control Measure	Palm Desert General Plan Policy
	<p>made due to existing development, topographic conditions or limited access to transportation systems</p> <p>Policy 6.4 Cook Street. Facilitate the development of Cook Street into a multimodal street that serves as community amenity, connecting both east and west sides of the street, as well as the north and south ends of the city.</p> <p>Mobility Element Goal 8. Transportation Innovation. Transportation Innovation. A transportation system that leverages emerging technologies to improve mobility for residents, employees, and visitors.</p> <p>Policy 8.2 Innovative Vehicle Technologies. Regularly monitor and evaluate new vehicle technologies such as autonomous and connected vehicles for use by City Staff.</p> <p>Policy 8.3 Emerging Mobility Strategies. Encourage the deployment of emerging transportation approaches such as transportation network companies, mobility hubs and comprehensive mobility providers by private vendors.</p> <p>Policy 8.4 Big Data. Regularly evaluate new data sources including but not limited to real time traffic and parking information for use by City Staff and residents.</p> <p>Policy 8.5 Analysis Tools. Regularly evaluate state of the practice transportation analysis tools and procedures to determine their utility in the analysis of existing and future transportation conditions.</p>
<p>Section 108 (f) (A)(x). Programs for secure bicycle storage facilities and other facilities, including bicycle lanes, for the convenience and protection of bicyclists, in both public and private areas.</p>	<p>Mobility Element Goal 4. Bicycle Networks. Well-connected bicycle network that facilitates bicycling for commuting, school, shopping, and recreational trips.</p> <p>Policy 4.1 Bicycle Networks. Provide bicycle facilities where shown on Figure 4.2 along all roadways to implement the proposed network of facilities outlined in the General Plan.</p> <p>Policy 4.2 Prioritized Improvements. Prioritize and capitalize on opportunities to provide bicycle facilities that connect community facilities, supportive land use patterns, pedestrian routes, and transit stations.</p> <p>Policy 4.3 Bicycle Parking. Require public and private development to provide sufficient bicycle parking.</p> <p>Policy 4.4 Bicycle Education. Develop educational programs that educate bicyclists on lawful/responsible riding.</p> <p>Policy 4.5 Regional Bicycle Safety. Support regional efforts to educate all travelers on measures to improve safety for bicyclists.</p>

Table 4.3-2, continued

Transportation Control Measure	Palm Desert General Plan Policy
	<p>Goal 9. Regional Coordination. The City transportation system operates as an integral element of the larger regional system</p> <p>Policy 9.2 Regional Bicycle and Pedestrian Facilities. Coordinate with CVAG and other agencies on the planning, design, and construction of regional non-motorized routes such as CV Link.</p>
<p>Section 108 (f)(A)(xv). Programs for new construction and major reconstruction of paths, tracks or areas solely for the use by pedestrian or other non-motorized means of transportation, when economically feasible and in the public interest.</p>	<p>Land Use and Community Element</p> <p>Goal 3. Neighborhoods. Neighborhoods that provide a variety of housing types, densities, designs and mix of uses and services that support healthy and active lifestyles.</p> <p>Policy 3.1 Complete neighborhoods. Through the development entitlement process, ensure that all new Neighborhoods (areas with a “Neighborhood” General Plan Designation) are complete and well structured such that the physical layout and land use mix promote walking to services, biking and transit use, are family friendly and address the needs of multiple ages and physical abilities. New neighborhoods should have the following characteristics:</p> <ul style="list-style-type: none"> • Contain short, walkable block lengths. • Contain a high level of connectivity for pedestrians, bicycles and vehicles where practicable. • Are organized around a central focal point such as a park, school, civic building or neighborhood retail such that most homes are no more than one quarter-mile from this focal point. • Have goods and services within a short walking distance. • Contain a diversity of housing types, where possible. • Have homes with entries and windows facing the street. • Have a grid or modified grid street network (except where topography necessitates another street network layout). • Provide a diversity of architectural styles. <p>Policy 3.11 Connections to key destinations. Require direct pedestrian connections between residential areas and nearby commercial and public/institutional areas.</p> <p>Policy 3.14 Access to daily activities. Require development patterns such that the majority of residents are within one-half mile walking distance to a variety of neighborhood goods and services, such as supermarkets, restaurants, churches, cafes, dry cleaners, laundromats, farmers markets, banks, hair care, pharmacies and similar uses</p>

Table 4.3-2, continued

Transportation Control Measure	Palm Desert General Plan Policy
	<p>Goal 4. Districts. A series of unique, destination oriented districts that provide space for large-format retail, industrial and resort uses in order to increase access to jobs, provide amenities for residents, and enhance the fiscal stability of the City.</p> <p>Policy 4.9 School location and design. Encourage school districts to size, design and locate schools to better enable students to walk or bicycle to them.</p> <p>Goal 5. Centers. A variety of mixed use, urban centers throughout the city that provide opportunities for shopping, recreation, commerce, employment and arts and culture.</p> <p>Policy 5.5 Changing retail format. Provide incentives to transform existing, auto-oriented suburban centers into neighborhood destinations by adding a diversity of uses, providing new pedestrian connections to adjacent residential areas, reducing the visual prominence of parking lots, making the centers more pedestrian-friendly and enhance the definition and character of street frontage and associated streetscapes.</p> <p>Policy 5.6 Neighborhood center design. Design new neighborhood centers to be walkable and pedestrian-friendly with buildings that front internal streets and public sidewalks and with buildings facing major roadways. No more than 50 percent of the frontage on streets may be parking lots.</p> <p>Goal 6. Corridors and Connectivity. A network of transportation and open space corridors throughout the city that provides a high level of connectivity for vehicles, bicyclists, and pedestrians.</p> <p>Policy 6.3 Connections between development projects. Require the continuation of the street network between adjacent development projects and discourage the use of cul-de-sacs except where necessary because connections cannot be made due to existing development, topographic conditions or limited access to transportation systems</p> <p>Policy 6.4 Cook Street. Facilitate the development of Cook Street into a multimodal street that serves as community amenity, connecting both east and west sides of the street, as well as the north and south ends of the city.</p> <p>Mobility Element</p> <p>Goal 3. Pedestrian Facilities. Integrated pedestrian pathways that connect residences, businesses, and educational and community uses.</p>

Table 4.3-2, continued

Transportation Control Measure	Palm Desert General Plan Policy
	<p>Policy 3.1 Pedestrian Network. Provide a safe and convenient circulation system for pedestrians that include sidewalks, crosswalks, place to sit and gather, appropriate street lighting, buffers from moving vehicles, shading, and amenities for people of all ages.</p> <p>Policy 3.2 Prioritized Improvements. Prioritize pedestrian improvements in areas of the city with community and/or education facilities, supportive land use patterns, and non-automotive connections such as multi-use trails and transit stops.</p> <p>Policy 3.3 Roadway Sidewalks. Where feasible, provide adequate sidewalks along all public roadways.</p> <p>Policy 3.4 Access to Development. Require that all new development projects or redevelopment projects provide connections from the site to the external pedestrian network.</p> <p>3.5 Pedestrian Education and Awareness. Support regional efforts to encourage walking and also to reduce vehicular/pedestrian collisions. 3.6 Safe Pedestrian Routes to School. Consider school access as a priority over vehicular movements when any such conflicts occur.</p> <p>Goal 9. Regional Coordination. The City transportation system operates as an integral element of the larger regional system.</p> <p>Policy 9.2 Regional Bicycle and Pedestrian Facilities. Coordinate with CVAG and other agencies on the planning, design, and construction of regional non-motorized routes such as CV Link.</p>

Source: South Coast Air Quality Management District, 2012 Air Quality Management Plan, Appendix IV-C, Attachment B: 2012 South Coast PM_{2.5} AQMP Reasonably Available Control Measure (RACM) Analysis – TCMs

Mitigation Measure

None required.

IMPACT 4.3-2 Short-term Construction Emissions (Thresholds 2, 3, 4).
Adoption and implementation of the City of Palm Desert’s General Plan does not include any specific development proposals. However, it would allow new development and redevelopment of property throughout the planning area, which would generate air contaminant emissions from short-term construction of planned land uses. These emissions may result in adverse impacts to local air quality, and potential impacts to sensitive receptors, that would be temporary for each construction project, but could occur for multiple projects simultaneously. Adoption and implementation of the City of Palm Desert’s General Plan policies and programs and enforcement of current SCAQMD Rules and Regulations would help reduce short-term emissions and these emissions can be mitigated on a specific

development basis. Therefore, construction emissions would result in a less than significant impact.

Construction activity facilitated by the City of Palm Desert's General Plan Update would cause temporary emissions of various air pollutants. Ozone precursors NO_x and CO would be emitted by the operation of construction equipment, while fugitive dust (PM₁₀) would be emitted by activities that disturb the soil, such as grading and excavation, road construction and building construction. As previously stated, Palm Desert is located in part of the Basin that is in non-attainment for the federal and state standards for ozone and PM₁₀. Information regarding specific development projects, soil types, and the locations of receptors would be needed in order to quantify the level of impact associated with individual construction projects.

Construction activity carried out under the City of Palm Desert's General Plan Update could occur throughout the City of Palm Desert. However, it is anticipated that the highest amount of construction activity would occur in areas that have been identified for the most change under the updated General Plan, including the Highway 111 corridor, the undeveloped lands west of the Cal State and UCR campuses, and San Pablo Avenue from Magnesia Falls Drive to El Paseo. Individual developments in these and other areas of the city would be subject to independent environmental review under CEQA, at which time SCAQMD project-level thresholds would be used to assess the potential construction-related air quality impacts of the proposal. Depending upon the development type and size, maximum daily emissions associated with individual projects could potentially exceed SCAQMD significance thresholds, resulting in a significant air quality impact.

LSTs only apply to those emissions generated by on-site construction activities, such as emissions from on-site grading, and do not apply to off-site mobile emissions. Because they are localized, and depend on project-level information such as quantities of demolition, grading, and construction, application of LST thresholds is only appropriate for project-level CEQA analysis, not in the program-level CEQA analysis of this EIR. City of Palm Desert General Plan Policy 6.1 would require siting of sensitive receptors and site planning to minimize the exposure to localized air pollution, and analysis of the potential for exceedances of LST thresholds would be carried out on a project-by-project basis, as necessary and appropriate.

The SCAQMD has established Rules 402 and 403, which require that air pollutant emissions not be a nuisance off-site, and reduce the ambient entrainment of fugitive dust. Rule 403 includes best available control measures (BACM) for all construction activity, contingency control measures for large operations, and conservation management practices for confined animal facilities. Major categories addressed by Rule 403 to reduce fugitive dust include earth moving, disturbed surface areas, unpaved roads, open storage piles, demolition, and other various construction activities. During construction, individual property owners, developers, or contractors would be required to comply with applicable SCAQMD rules, which reduce temporary construction-related air pollutant emissions. In addition, to reduce the impacts of local fugitive dust and PM₁₀ emissions, the City of Palm Desert adopted a Fugitive Dust (PM₁₀) Control Ordinance (Chapter 24.12 of the Palm Desert City Municipal Code). The ordinance establishes minimum dust control requirements for construction and demolition activities and other specified land uses, including measures such as:

- Preparation and approval of a Fugitive Dust Control Plan

- Application of water to sites greater than one acre during dust-generating construction activities
- Stabilizing surfaces during construction through short-term means such as watering and chemical stabilizers, and after construction through long-term means such as revegetation
- Preventing track-out of dust from construction sites by construction vehicles.

Further, if required, individual projects that could occur under the proposed project would be required to implement additional mitigation if site-specific analysis identifies the potential to exceed applicable thresholds. Adherence to SCAQMD rules and local policies would reduce potential construction-related impacts to a **less than significant** level.

Mitigation Measure

None required.

IMPACT 4.3-3 Long-term Operational Emissions (Thresholds 2, 3, 4). *Adoption and implementation of the City of Palm Desert’s General Plan would generate air contaminant emissions from long-term operation of planned land uses. These emissions may result in adverse impacts to local air quality, and potential impacts to sensitive receptors. Adoption and implementation of the City of Palm Desert’s General Plan policies and programs and enforcement of current SCAQMD Rules and Regulations would help reduce long-term emissions. Therefore, operational emissions from long-term operation of the City of Palm Desert’s General Plan would result in a **less than significant** impact.*

Long-term emissions associated with future development in the City of Palm Desert in accordance with the proposed General Plan are those associated with vehicle trips and stationary sources (electricity and natural gas). Emissions associated with individual projects, depending on project type and size, could exceed project-specific thresholds established by the SCAQMD. However, such projects would be required to undergo independent project-level CEQA review and to include mitigation measures to address potentially significant project-level impacts. As discussed under Impact AQ-4.2-1, overall growth within City of Palm Desert would be within SCAG regional growth forecasts upon which regional air quality planning is based.

The City of Palm Desert’s General Plan includes policies that would reduce vehicle use and vehicle miles traveled and result in a reduction in fuel consumption and resulting air pollutant emissions. The following Land Use and Transportation, Mobility, and Health and Safety Element policies are designed to decrease the generation of air pollution and greenhouse gases through the reduction of vehicle miles traveled by promoting infill development in the developed areas of the city. These policies also emphasize pedestrian and bicycle travel.

Land Use Element

- **3.1 Complete neighborhoods.** Through the development entitlement process, ensure that all new Neighborhoods (areas with a “Neighborhood” General Plan Designation) are complete and well structured such that the physical layout and land use mix promote walking to services, biking and transit use,

are family friendly and address the needs of multiple ages and physical abilities. New neighborhoods should have the following characteristics:

- Contain short, walkable block lengths.
 - Contain a high level of connectivity for pedestrians, bicycles and vehicles where practicable.
 - Are organized around a central focal point such as a park, school, civic building or neighborhood retail such that most homes are no more than one quarter-mile from this focal point.
 - Have goods and services within a short walking distance.
 - Contain a diversity of housing types, where possible.
 - Have homes with entries and windows facing the street.
 - Have a grid or modified grid street network (except where topography necessitates another street network layout).
 - Provide a diversity of architectural styles.
- **3.8 Neighborhood intersection density.** Require new neighborhoods to provide high levels of intersection density. Town Center and Small Town Neighborhoods should strive for 400 intersections per square mile. Conventional Suburban Neighborhoods should strive for at least 200 intersections per square mile.
 - **3.11 Connections to key destinations.** Require direct pedestrian connections between residential areas and nearby commercial and public/institutional areas.
 - **3.14 Access to daily activities.** Require development patterns such that the majority of residents are within one-half mile walking distance to a variety of neighborhood goods and services, such as supermarkets, restaurants, churches, cafes, dry cleaners, laundromats, farmers markets, banks, hair care, pharmacies and similar uses.
 - **3.21 Infill neighborhoods.** In existing developed areas of the city, encourage development that repairs connectivity, adds destinations, and encourages complete neighborhoods. This can be achieved by increasing intersection density, reducing block size, providing new community amenities and destinations.
 - **4.9 School location and design.** Encourage school districts to size, design and locate schools to better enable students to walk or bicycle to them.
 - **5.4 Access to transit.** Encourage the development of commercial and mixed use centers that are located on existing or planned transit stops in order to facilitate and take advantage of transit service, reduce vehicle trips and allow residents without private vehicles to access services.
 - **5.5 Changing retail format.** Provide incentives to transform existing, autooriented suburban centers into neighborhood destinations by adding a diversity of uses, providing new pedestrian connections to adjacent residential

areas, reducing the visual prominence of parking lots, making the centers more pedestrian-friendly and enhance the definition and character of street frontage and associated streetscapes.

- **5.6 Neighborhood center design.** Design new neighborhood centers to be walkable and pedestrian-friendly with buildings that front internal streets and public sidewalks and with buildings facing major roadways. No more than 50 percent of the frontage on streets may be parking lots.
- **6.3 Connections between development projects.** Require the continuation of the street network between adjacent development projects and discourage the use of cul-de-sacs except where necessary because connections cannot be made due to existing development, topographic conditions or limited access to transportation systems.
- **7.3 Artists' colony.** Encourage the establishment of an artist's colony near the downtown, supporting live-work studios as a form of mixed-use.

Mobility Element

- **1.7 System Efficiency.** Prioritize transportation systems management (TSM) strategies such as signal coordination, signal retiming, and other applicable techniques to limit unnecessary delay and congestion for vehicles.
- **3.1 Pedestrian Network.** Provide a safe and convenient circulation system for pedestrians that include sidewalks, crosswalks, place to sit and gather, appropriate street lighting, buffers from moving vehicles, shading, and amenities for people of all ages.
- **3.2 Prioritized Improvements.** Prioritize pedestrian improvements in areas of the city with community and/or education facilities, supportive land use patterns, and non-automotive connections such as multi-use trails and transit stops.
- **3.3 Roadway Sidewalks.** Where feasible, provide adequate sidewalks along all public roadways.
- **3.4 Access to Development.** Require that all new development projects or redevelopment projects provide connections from the site to the external pedestrian network.
- **3.5 Pedestrian Education and Awareness.** Support regional efforts to encourage walking and also to reduce vehicular/pedestrian collisions.
- **3.6 Safe Pedestrian Routes to School.** Consider school access as a priority over vehicular movements when any such conflicts occur.
- **4.1 Bicycle Networks.** Provide bicycle facilities where shown on Figure 4.2 along all roadways to implement the proposed network of facilities outlined in the General Plan. 4.2 Prioritized Improvements. Prioritize and capitalize on opportunities to provide bicycle facilities that connect community facilities, supportive land use patterns, pedestrian routes, and transit stations. 4.3 Bicycle Parking. Require public and private development to provide sufficient bicycle parking. 4.4 Bicycle Education. Develop educational programs that educate bicyclists on lawful/responsible riding. 4.5 Regional Bicycle Safety.

Support regional efforts to educate all travelers on measures to improve safety for bicyclists.

- **5.1 Transit Service.** Promote public transit service in areas of the City with appropriate levels of density, mix of residential and employment uses, and connections to bicycle and pedestrian networks. 5.2 Bus Stop Location. Regularly review bus stop locations in conjunction with Sunline Transit to ensure that bus stops reflect current land use and transportation networks.
- **8.6 Electric Vehicles.** Encourage the use of electric vehicles (EV), including golf carts and Neighborhood Electric Vehicles (NEV) by supporting the use of EVs and encouraging NEV charging stations to be powered with renewable resources.
- **9.1 Regional Vehicular Traffic.** Be mindful of local impacts from regional “through” traffic. Consider but don’t prioritize the movement of through vehicles through Palm Desert roadways.

Health and Wellness Element

- **7.3 Pedestrian barriers.** Discourage physical barriers to walking and bicycling between and within neighborhoods and neighborhood centers. If physical barriers are unavoidable, provide safe and comfortable crossings for pedestrians and cyclists. Physical barriers may include arterial streets with speed limits above 35 mph, transit or utility rights-of-way, very long blocks without through-streets, and sound walls, amongst others.

Adherence to the goals and policies outlined in the City of Palm Desert General Plan would reduce impacts to a **less than significant** level.

Mitigation Measure

None required.

IMPACT 4.3-4 Carbon Monoxide (CO) Hot Spots (Threshold 4). *Adoption and implementation of the City of Palm Desert’s General Plan would generate and contribute vehicle traffic to existing roadways within the city as a result of proposed land uses, which could contribute to potential CO hot spots. However, traffic volumes anticipated at intersections throughout the city with implementation of the City of Palm Desert’s General Plan would not be large enough to trigger a CO hot spot, resulting in a **less than significant** impact.*

The SCAQMD defines typical sensitive receptors as residences, schools, playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. When evaluating potential long-term air quality impacts to sensitive receptors, the SCAQMD is primarily concerned with high localized concentrations of CO. Motor vehicles, and traffic-congested roadways and intersections are the primary source of high localized CO concentrations. Localized areas where ambient concentrations exceed federal and/or state standards for CO are termed CO “hotspots.”

Implementation of the proposed project would not expose existing or future sensitive uses within the city to substantial CO concentrations. The Basin is in attainment of state and federal CO standards and has been for several years. Background levels of

carbon monoxide are generally low in the basin. The highest recorded 8-hour average concentration of CO in the basin in 2011 was 0.6 ppm, which is well below the state and federal 8-hour standard of 9 ppm. A review of data for 2015 showed state and federal standards for CO were not exceeded (SCAQMD, May 2016). Although CO is not expected to be a major air quality concern in Riverside County over the planning horizon, elevated CO levels can occur at or near intersections that experience severe traffic congestion. However, as discussed in Section 4.14, Transportation, the proposed project’s potential traffic congestion impacts would be less than significant. As a result, this impact would be **less than significant**.

Mitigation Measure

None required.

IMPACT 4.3-5 Odors (Threshold 5). *The proposed City of Palm Desert General Plan does not include land uses that would generate substantial odors or expose existing receptors to odors. Should future needs arise, adoption and implementation of City of Palm Desert’s General Plan policies and programs and compliance with SCAQMD Rules and Regulations would result in a **less than significant** impact.*

The proposed project would facilitate development within Palm Desert. Some commercial and industrial uses developed under the City of Palm Desert’s General Plan Update may generate odor nuisance effects to the public. Examples of commercial uses that have the potential to cause odor impacts include fast food restaurants, photographic studios, and laundry facilities. Industrial uses may also generate odors. However, the City of Palm Desert’s General Plan Policies 6.1, 6.2 and 6.3 would require siting of sensitive receptors and site planning to minimize the exposure to odors. In addition, SCAQMD Rule 402 (Nuisance) would prohibit any land use (except agricultural land uses) from generating odors that “endanger the comfort, repose, health or safety of any such persons of the public” (SCAQMD 1976). Agricultural land uses are not permitted within the incorporated city and therefore would not generate substantial odors within the city. Therefore, implementation of the City of Palm Desert’s General Plan and compliance with SCAQMD Rules and Regulations would ensure that a substantial number of receptors are not exposed to substantial odor emissions. As such, significant odor impacts are not anticipated.

Construction activity would also generate temporary airborne odors associated with the operation of construction vehicles (i.e., diesel exhaust) and the application of architectural coatings. However, these odors are not generally considered to be especially offensive. Emissions would be temporary and would be confined to the immediate vicinity of the construction site and activity. Therefore, impacts would be **less than significant**.

Mitigation Measure

None required.

Cumulative Impacts

Because the proposed project is comprised of a General Plan Update, cumulative impacts are treated somewhat differently than would be the case for a project-specific development. Section 15130 of the State CEQA Guidelines provides the following direction relative to cumulative impact analysis:

Impacts should be based on a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or areawide conditions contributing to the cumulative impact...

By its nature, a General Plan considers cumulative impacts insofar as it considers cumulative development that could occur within a city's plan area. Therefore, the analysis of project impacts also constitutes the cumulative analysis. As demonstrated in the impact analysis in this section of the EIR, after incorporation of mitigation measures, the proposed project would not result in any significant impacts relating to air quality, either compared to applicable SCAQMD thresholds, or in terms of policy consistency. The SCAQMD thresholds used in this analysis are from the AQMP, which is designed to bring the region into attainment with federal and state health based standards and to comply with Clean Air Act requirements. All other agencies in the region are subject to the AQMP, and the proposed project's less than significant air quality impacts, when combined with emissions from other sources in the region, would therefore not be cumulatively significant.

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4.4. Greenhouse Gas Emissions

Introduction

This resource chapter evaluates potential greenhouse gas (GHG) emissions effects associated with implementation of the General Plan update. General Plan policies and implementation actions guide development, infrastructure, and day-to-day operational practices to minimize GHG emissions. The GHG emissions associated with implementation of the General Plan update are quantified and analyzed. The results of the GHG emission calculations and estimates are provided in **Appendix 4.4**.

GHG emissions have the potential to adversely affect the environment because such emissions contribute, on a cumulative basis, to global climate change. Therefore, the proper context for addressing this issue in an EIR is in an assessment of cumulative impacts, because although it is unlikely that a single project will contribute significantly to climate change, cumulative emissions from many projects could impact global GHG concentrations and the climate system. Unlike criteria air pollutants and toxic air contaminants (TACs), which are pollutants of localized or regional concern, the location where GHG emissions are generated is of relatively little importance. Rather, it is the total amount and type of GHG emissions that ultimately result in climate change effects.

In addition, this resource chapter evaluates energy consumption associated with implementation of the General Plan update. Public Resources Code Section 21100(b)(3) and CEQA Guidelines Section 15126.4 require EIRs to describe, where relevant, the wasteful, inefficient, and unnecessary consumption of energy caused by a project. In 1975, largely in response to the oil crisis of the 1970s, the California legislature adopted Assembly Bill (AB) 1575, which created the California Energy Commission (CEC). The statutory mission of the CEC is to forecast future energy needs, license thermal power plants of 50 megawatts or larger, develop energy technologies and renewable energy resources, plan for and direct state responses to energy emergencies, and—perhaps most importantly—promote energy efficiency through the adoption and enforcement of appliance and building energy efficiency standards. AB 1575 also amended Public Resources Code Section 21100(b)(3) to require EIRs to consider the wasteful, inefficient, and unnecessary consumption of energy caused by a project. Thereafter, the State Resources Agency created Appendix F of the CEQA Guidelines. CEQA Guidelines Appendix F is an advisory document that assists EIR preparers in determining whether a project will result in the inefficient, wasteful, and unnecessary consumption of energy. For the reasons set forth below, this EIR concludes that the proposed project would not result in this type of energy consumption and therefore would not create a significant impact on energy resources. The results of the energy consumption calculations and estimates are provided in **Appendix 4.4**.

NOP Comments: No comments were received on the Notice of Preparation (NOP) related to greenhouse gas emissions.

Reference Information: Information for this resource chapter is based on numerous references, including the General Plan Update Technical Background Report (TBR), the General Plan Update Traffic Analysis Report (**Appendix 4.0**), and other publicly available documents. This EIR, including the TBR, and the traffic analysis report are also available electronically on the City's website (<http://www.cityofpalmdesert.org>).

Environmental Setting

Section 16 of the TBR (**Appendix 4.0**) describes the natural factors (i.e., topography, climate, and meteorology) and scientific background for climate change and GHG emissions, as well as current GHG emissions and sources in the Planning Area. The following components of the TBR provide useful background information to support environmental impact analysis:

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface and a smaller portion of this radiation is reflected back toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth. Without the greenhouse effect, the earth would not be able to support life as we know it.

Human-caused emissions of these GHGs in excess of natural ambient concentrations are believed responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. It is "extremely likely" that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic factors together (IPCC 2014, pp. 3 and 5).

Carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O) are the three main GHG pollutants with respect to land use development projects. These three GHG pollutants will be the focus of the GHG impact analysis. Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. CH₄ traps over 25 times more heat per molecule than CO₂, and N₂O absorbs 298 times more heat per molecule than CO₂. Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO₂e), which weigh each gas by its global warming potential (GWP). Expressing GHG emissions in CO₂e takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO₂ were being emitted.

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the transportation, industrial/manufacturing, utility, residential, commercial, and agricultural emissions sectors (CARB 2015). California is a significant emitter of CO₂e in the world and produced 459 million gross metric tons of CO₂e in 2013 (CARB 2015). In the state, the transportation sector is the largest emitter of GHGs, followed by industrial operations such as manufacturing and oil and gas extraction (CARB 2015). Emissions of CO₂ are byproducts of fossil fuel combustion. CH₄, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. N₂O is also largely attributable to agricultural practices and soil management. CO₂ sinks, or reservoirs, include vegetation and the ocean, which absorb CO₂ through sequestration and dissolution (CO₂ dissolving into the water), respectively, two of the most common processes for removing carbon dioxide from the atmosphere.

The Intergovernmental Panel on Climate Change (IPCC) was established in 1988 by the World Meteorological Organization and the United Nations Environment Programme to provide the world with a scientific view on climate change and its potential effects. According to the IPCC, global average temperature is expected to increase relative to the 1986–2005 period by 0.3 to 4.8 degrees Celsius (°C) (0.5–8.6 degrees Fahrenheit [°F]) by the end of the twenty-first century (2081–2100), depending on future GHG emission scenarios (IPCC 2014). According to the California Natural Resources Agency (2012, p. 2), temperatures in California are projected to increase 2.7°F above 2000 averages by 2050 and, depending on emission levels, 4.1–8.6°F by 2100. Temperatures in the Palm Desert region on average are projected to rise 4–7°F by 2100, with the range based on low and high emissions scenarios (Cal-Adapt 2016).

Physical conditions beyond average temperatures could be indirectly affected by the accumulation of GHG emissions. For example, changes in weather patterns resulting from increases in global average temperature are expected to result in a decreased volume of precipitation falling as snow in California and an overall reduction in snowpack in the Sierra Nevada. Snowpack in the Sierra Nevada provides both water supply (runoff) and storage (within the snowpack before melting), which is a major source of supply for the state. Based on historical data and modeling, the California Department of Water Resources projects that the Sierra snowpack will experience a 25–40 percent reduction from its historic average by 2050 (DWR 2008, p. 4). By 2100, the snowpack portion of the water supply could potentially decline by 30–90 percent. Although current forecasts are uncertain, it is evident that this phenomenon could lead to significant challenges in securing an adequate water supply for a growing population.

The Coachella Valley Association of Governments (CVAG), in partnership with the South Coast Air Quality Management District, prepared a 2005 GHG inventory for the Coachella Valley and a forecast of 2020 emissions (see **Table 4.4-1**). In 2005, GHG emissions in the Coachella Valley were found to be 4.31 million metric tons of carbon dioxide equivalents (MMT CO₂e). By 2020, emissions are expected to increase approximately 29 percent to 5.58 MMT CO₂e.

Table 4.4-1. Coachella Valley 2005 Greenhouse Gas Emissions

Source Category	MMT CO ₂ e	Percentage
Fuel Combustion	0.28	6%
Waste Disposal	0.15	3%
Cleaning and Surface Coatings	0.00	0%
Petroleum Production and Marketing	0.00	0%
Industrial Processes	0.00	0%
Solvent Evaporation	0.04	1%
Miscellaneous Processes	0.28	6%
On-Road Motor Vehicles	3.26	76%
Other Mobile Sources	0.30	7%
Total	4.31	

Source: City of Palm Desert General Plan Update (Appendix 3.0)

Palm Desert prepared a citywide GHG inventory which calculated the emission of 621,225 metric tons of CO₂e in 2008.

In Palm Desert, electrical services are provided by Southern California Edison (SCE) through State-regulated public utility contracts and natural gas is provided by Southern California Gas Company (SoCal Gas), which is owned by Sempra Energy. **Table 4.4-2** shows electricity and natural gas consumption for Palm Desert in 2008.

Table 4.4-2. Palm Desert 2008 Electricity and Natural Gas Consumption

Sector	Electricity (kWh)	Natural Gas Use (Therms)
Residential	336,791,782	13,749,419
Commercial	249,556,770	3,187,971
Industrial (Resorts and golf courses)	173,427,756	2,254,595
Total	759,776,308	19,191,985

Source: City of Palm Desert General Plan Update (Appendix 3.0)

Regulatory Setting

Federal, state, and local laws, regulations, and policies provide a regulatory framework for addressing GHG emissions under the General Plan update. The regulatory setting for GHG emissions is discussed in detail in **Appendix 4.0**. Key laws, regulations, and policies influencing the General Plan update are summarized below.

Executive Order (EO) S-3-05

EO S-3-05 recognizes California’s vulnerability to reduced snowpack, exacerbation of air quality problems, and potential sea level rise due to a changing climate. To address these concerns, the governor established targets to reduce statewide GHG emissions to 2000 levels by 2010, to 1990 levels by 2020, and to 80 percent below 1990 levels by 2050.

Assembly Bill (AB) 32

AB 32 mandates that the State reduce GHG emissions to 1990 levels by year 2020. The Climate Change Scoping Plan is a statewide planning document and GHG reduction plan that outlines actions and measures to achieve the statewide GHG emission reduction target.

California Executive Order B-30-15

Executive Order B-30-15 seeks to achieve a reduction of GHG emissions of 40 percent below 1990 levels by 2030.

Senate Bill (SB) 375

SB 375 aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocations. SB 375 requires metropolitan planning organizations (MPOs) to adopt a Sustainable Communities Strategy (SCS) or Alternative Planning Strategy (APS), which will prescribe land use allocation in that MPO’s regional transportation plan (RTP).

California Green Building Standards

The California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, is a statewide mandatory construction code that was developed and adopted by the California Building Standards Commission and the Department of Housing and Community Development. The CALGreen standards require new residential and commercial buildings to comply with mandatory measures under the topics of planning and design, energy efficiency, water efficiency/conservation, material conservation and resource efficiency, and environmental quality. CALGreen also provides voluntary tiers and measures that local governments may adopt that encourage or require additional measures in the five green building topics. The most recent update to the CALGreen Code went into effect July 1, 2014.

South Coast Air Quality Management District (SCAQMD)

The SCAQMD began a process of providing guidance to local lead agencies on determining the significance of GHG emissions identified in CEQA documents. The SCAQMD established a working group to develop CEQA significance thresholds for GHG emissions. These thresholds would be used as interim guidance until CARB, or the created statewide guidance on assessing the significance of GHG emissions under CEQA, are updated.

Palm Desert Strategic Plan

The City Council adopted a Strategic Plan in 2014. This plan outlined four priorities in the areas of energy and sustainability for the next 20 years.

Palm Desert Environmental Sustainability Plan

The City completed an Environmental Sustainability Plan in 2010. This plan presents three phases of planned activities that deliver the greatest energy, consumer, and carbon savings set to take place over 10 years.

Impacts and Mitigation Measures

Analysis Approach

The analysis of impacts is based on the likely consequences of adoption and implementation of the General Plan update compared to existing conditions. The following analysis of GHG emissions impacts is both qualitative and quantitative. The analysis assumes that all future and existing development in the Planning Area complies with all applicable laws, regulations, design standards, and plans. Qualitative analysis is based on information from the existing regulatory framework and the General Plan update. Quantitative analysis was performed by modeling the General Plan update's operational emissions using methods similar to those described in Chapter 4.3, Air Quality. As discussed in Subsection 4.4.1, Introduction, all analyses for greenhouse gas emissions are inherently cumulative due to the nature of GHG emissions and climate change.

In terms of energy consumption, the impact analysis focuses on the three sources of energy that are relevant to the proposed project: electricity, natural gas, and transportation fuel for vehicle trips associated with the likely consequences of adoption and implementation of the General Plan update compared to existing conditions.

Draft General Plan Update Policies and Implementation Programs

Policies

Updated General Plan policies and implementation actions that address GHG emissions include:

Land Use & Community Character Element

- **Policy 1.3: Traffic generation.** Balance medium and high intensity/density development with pedestrian-oriented and bicycle friendly design features so as to maximize trip and VMT reduction.
- **Policy 2.1: Pedestrian focus.** Design the streetscape of high volume corridors to balance regional traffic flow with pedestrian movement and safety and the unique physical environment of the area.
- **Policy 2.4: Tree planting.** Encourage the planting of trees that appropriately shade the sidewalk and improve the pedestrian experience throughout the city
- **Policy 2.5: Streetscape.** Enhance the pedestrian experience through streetscape improvements that could include new street lighting, tree planting, and easement dedications to increase the size of the sidewalks and pedestrian amenities.
- **Policy 2.9: Commercial requirements.** Require development projects in nonresidential and mixed use areas to provide for enhanced pedestrian activity.
- **Policy 2.11: Roadway scale.** In pedestrian prioritized areas of the city, limit roadway size and design techniques that emphasize and/or prioritize automobile operation at the expense of pedestrian and bicycle operation.
- **Policy 2.12: Destination Accessibility.** Direct the development of new centers, parks, schools, and similar destinations so as to provide all residences within town ¼ mile to at least two amenities.
- **Policy 3.1: Complete neighborhoods.** Through the development entitlement process, ensure that all new Neighborhoods (areas with a “Neighborhood” General Plan Designation) are complete and well-structured such that the physical layout and land use mix promote walking to services, biking and transit use, are family friendly and address the needs of multiple ages and physical abilities.
- **Policy 3.7: Walkable neighborhoods.** Require that all new neighborhoods be designed and constructed to be pedestrian friendly and include features such as short blocks, wide sidewalks, tree-shaded streets, buildings that define and are oriented to streets or public spaces, traffic-calming features, convenient pedestrian street crossings, and safe streets that are designed for pedestrians, cyclists and vehicles.
- **Policy 3.8: Neighborhood intersection density.** Require new neighborhoods to provide high levels of intersection density. Town Center and Small Town Neighborhoods should strive for 400 intersections per square mile. Conventional Suburban Neighborhoods should strive for at least 200 intersections per square mile.

- **Policy 3.9: Street layout.** Design streets and lot layouts to provide a majority of lots within 20 degrees of a north-south orientation for increased energy conservation.
- **Policy 3.11: Connections to key destinations.** Require direct pedestrian connections between residential areas and nearby commercial and public/institutional areas.
- **Policy 3.14: Access to daily activities.** Require development patterns such that the majority of residents are within one-half mile walking distance to a variety of neighborhood goods and services, such as supermarkets, restaurants, churches, cafes, dry cleaners, laundromats, farmers markets, banks, hair care, pharmacies and similar uses.
- **Policy 3.15: Access to parks and open spaces.** Require the design of new neighborhoods and, where feasible, retrofit existing neighborhoods, so that 60 percent of dwelling units are within a ¼ mile walking distance of a usable open space such as a tot-lot, neighborhood park, community park or plaza/green.
- **Policy 3.21: Infill neighborhoods.** In existing developed areas of the city, encourage development that repairs connectivity, adds destinations, and encourages complete neighborhoods. This can be achieved by increasing intersection density, reducing block size, providing new community amenities and destinations.
- **Policy 4.2: Resort design and connectivity.** Allow resorts to be designed as isolated and gated developments as long as through traffic and external connectivity occurs at distances of no greater than 1,300 feet. Exceptions to this may be made where external connection is not possible because of steep slopes, or natural or man-made barriers.
- **Policy 4.3: Regional retail districts.** Facilitate major regional serving commercial centers that provide a mix of uses in a pedestrian oriented format and become vibrant destinations for people to live, work, shop and congregate. Allow a wide variety of uses to locate in Regional Retail Districts including destination retail centers, mixed-use town centers, and hotels, among other uses.
- **Policy 4.4: Regional retail district design.** Allow for significant flexibility in the design of Regional Retail Districts so long as city-wide and project-level connectivity standards are met, the uses do not adversely affect adjacent uses and accommodations are made for pedestrians, bicycle and transit users. Design internal streets and parking into blocks and require sidewalks along both sides of these streets.
- **Policy 4.5: Suburban retail design.** Design new suburban retail to be pedestrian friendly with buildings that front internal streets and public sidewalks and with buildings facing major roadways. No more than 50 percent of the frontage on streets may be parking lots.
- **Policy 4.9: School location and design.** Encourage school districts to size, design and locate schools to better enable students to walk or bicycle to them.

- **Policy 5.4: Access to transit.** Encourage the development of commercial and mixed use centers that are located on existing or planned transit stops in order to facilitate and take advantage of transit service, reduce vehicle trips and allow residents without private vehicles to access services.
- **Policy 5.5: Changing retail format.** Provide incentives to transform existing, auto-oriented suburban centers into neighborhood destinations by adding a diversity of uses, providing new pedestrian connections to adjacent residential areas, reducing the visual prominence of parking lots, making the centers more pedestrian-friendly and enhance the definition and character of street frontage and associated streetscapes.
- **Policy 5.6: Neighborhood center design.** Design new neighborhood centers to be walkable and pedestrian-friendly with buildings that front internal streets and public sidewalks and with buildings facing major roadways. No more than 50 percent of the frontage on streets may be parking lots.
- **Policy 6.1: Citywide connectivity.** Establish and preserve a citywide street network throughout the city where through roads occur approximately every one-quarter mile, except where connections cannot be made because of previous large development projects or physical constraints such as railroads, waterways, steep slopes, limited access roadways and similar natural and man-made barriers.
- **Policy 6.2: Subarea connectivity.** Ensure a high-level of connectivity in all Neighborhoods, Centers and Districts throughout the city. The connectivity shall be measured as block perimeter and in external connectivity on the perimeter of a new development project.
- **Policy 6.3: Connections between development projects.** Require the continuation of the street network between adjacent development projects and discourage the use of cul-de-sacs except where necessary because connections cannot be made due to existing development, topographic conditions or limited access to transportation systems.
- **Policy 6.5: Unbundled Parking.** Allow and encourage strategies that unbundle parking, reducing or eliminating requirements for on-site parking.

Mobility Element

- **Policy 1.1: Complete Streets.** Consider all modes of travel in planning, design, and construction of all transportation projects to create safe, livable, and inviting environments for pedestrians, bicyclists, motorists and public transit users of all ages and capabilities.
- **Policy 1.2: Transportation System Impacts.** Evaluate transportation and development projects in a manner that addresses the impacts of all travel modes on all other travel modes through the best available practices.
- **Policy 3.1: Pedestrian Network.** Provide a safe and convenient circulation system for pedestrians that include sidewalks, crosswalks, place to sit and gather, appropriate street lighting, buffers from moving vehicles, shading, and amenities for people of all ages.

- **Policy 3.2: Prioritized Improvements.** Prioritize pedestrian improvements in areas of the city with community and/or education facilities, supportive land use patterns, and non-automotive connections such as multi-use trails and transit stops.
- **Policy 3.4: Access to Development.** Require that all new development projects or redevelopment projects provide connections from the site to the external pedestrian network.
- **Policy 3.5: Pedestrian Education and Awareness.** Support regional efforts to encourage walking and also to reduce vehicular/pedestrian collisions.
- **Policy 3.6: Safe Pedestrian Routes to School.** Consider school access as a priority over vehicular movements when any such conflicts occur.
- **Policy 4.1: Bicycle Networks.** Provide bicycle facilities where shown on Figure 4.2 along all roadways to implement the proposed network of facilities outlined in the General Plan.
- **Policy 4.2: Prioritized Improvements.** Prioritize and capitalize on opportunities to provide bicycle facilities that connect community facilities, supportive land use patterns, pedestrian routes, and transit stations.
- **Policy 4.3: Bicycle Parking.** Require public and private development to provide sufficient bicycle parking.
- **Policy 5.1: Transit Service.** Promote public transit service in areas of the City with appropriate levels of density, mix of residential and employment uses, and connections to bicycle and pedestrian networks.
- **Policy 5.2: Bus Stop Location.** Regularly review bus stop locations in conjunction with Sunline Transit to ensure that bus stops reflect current land use and transportation networks.
- **Policy 8.1: Alternative Fueled City Owned Vehicles.** Encourage the purchase of City vehicles which use fuel sources other than fossil fuels while considering factors such as cost effectiveness, environmental impacts, and the availability of local maintenance.
- **Policy 8.3: Emerging Mobility Strategies.** Encourage the deployment of emerging transportation approaches such as transportation network companies, mobility hubs and comprehensive mobility providers by private vendors.
- **Policy 8.6: Electric Vehicles.** Encourage the use of electric vehicles (EV), including golf carts and Neighborhood Electric Vehicles (NEV) by supporting the use of EVs and encouraging NEV charging stations to be powered with renewable resources.
- **Policy 9.2: Regional Roadways.** Coordinate with Caltrans, RCTC, CVAG, and other agencies on the planning, design, and construction of regional roadways to provide an appropriate level of regional connectivity.

- **Policy 9.3: Regional Bicycle and Pedestrian Facilities.** Coordinate with CVAG and other agencies on the planning, design, and construction of regional non-motorized routes such as CV Link.
- **Policy 9.4: Regional Transit.** Collaborate with RCTC, CVAG, and Sunline Transit in the planning, design, and construction of regional transportation facilities, emphasizing the construction of a Metrolink station in Palm Desert.
- **Policy 9.5: Regional Priorities.** Identify and prioritize desired regional roadway, transit, and non-motorized improvements to focus the City’s outreach with agencies such as Caltrans, CVAG, RCTC, and elected officials.

Environmental Resources Element

- **Policy 1.1: Water conservation technologies.** Promote indoor and outdoor water conservation and reuse practices including water recycling, grey water re-use and rainwater harvesting.
- **Policy 1.3: Conservation performance targeted to new construction.** Incentivize new construction to exceed the state’s Green Building Code for water conservation by an additional 10 percent.
- **Policy 1.4: Greywater.** Allow the use of greywater and establish criteria and standards to permit its safe and effective use (also known as on-site water recycling).
- **Policy 5.1: Municipal operations.** Conduct city operations so as to continually reduce municipal greenhouse gas (GHG) emissions and lead the community in reducing GHG emissions.
- **Policy 5.2: GHG reductions.** Promote land use and development patterns that reduce the community’s dependence on, and length of, automobile trips.
- **Policy 5.3: Existing GHG emissions.** Work with community members and businesses to support their efforts to reduce greenhouse gas emissions.
- **Policy 5.4: Monitoring progress.** Monitor and update periodically the city’s target to reduce greenhouse gas emissions.
- **Policy 5.5: GHG Inventory.** Periodically update the City’s greenhouse gas inventory.
- **Policy 5.6: Climate-appropriate building types.** Seek out and promote alternative building types that are more sensitive to the arid environment found in the Coachella Valley. Consider the use of courtyard housing and commercial buildings to provide micro-climates that are usable year round, reducing the need for mechanically cooled spaces and reducing energy consumption.
- **Policy 5.7: GHG reduction incentives.** Support and incentivize projects that innovatively and aggressively reduce greenhouse gas emissions.
- **Policy 5.10: Urban forest.** Protect the city’s healthy trees and plant new ones to provide shade, increase carbon sequestration and purify the air.

- **Policy 5.16: Reducing GHG emissions.** In consulting with applicants and designing new facilities, prioritize the selection of green building design features that enhance the reduction of greenhouse gas emissions.
- **Policy 5.17: Efficiency incentives.** Provide incentives for households to improve resource efficiency, such as rebate programs, and giveaways for items such as low-flow showerheads and electrical outlet insulation.
- **Policy 6.1: Passive solar design.** Require new buildings to incorporate energy efficient building and site design strategies for the desert environment that include appropriate solar orientation, thermal mass, use of natural daylight and ventilation, and shading.
- **Policy 6.2: Alternative energy.** Continue to promote the incorporation of alternative energy generation (e.g., solar, wind, biomass) in public and private development.
- **Policy 6.3: Energy Efficient Buildings.** Encourage new buildings and buildings undergoing major retrofits to exceed Title 24 energy efficiency standards.
- **Policy 6.4: Community development–subdivisions.** When reviewing applications for new subdivisions, require all residences be oriented along an east-west access, minimizing western sun exposure, to maximize energy efficiency.
- **Policy 6.5: Renewable energy–open space areas.** Allow the installation of renewable energy systems in areas designated for open space.
- **Policy 6.6: Publicly funded buildings.** Require energy conservation as the primary strategy to reduce energy demand in new and renovation projects using public funds.
- **Policy 6.7: Solar access.** Prohibit new development and renovations that impair adjacent buildings’ solar access, unless it can be demonstrated that the shading benefits substantially offset the impacts of solar energy generation potential.
- **Policy 6.8: Use of passive open space.** Allow renewable energy projects in areas zoned for open space, where consistent with other uses and values.
- **Policy 6.9: Public buildings.** Require that any new building constructed in whole or in part with City funds incorporate passive solar design features, such as daylighting and passive solar heating, where feasible.
- **Policy 6.10: Municipal building energy efficiency.** Strive for high levels of energy efficiency in municipal facilities.
- **Policy 6.11: Energy-efficient infrastructure.** Whenever possible, use energy-efficient models and technology when replacing or providing new city infrastructure such as streetlights, traffic signals, water conveyance pumps, or other public infrastructure.
- **Policy 7.1: Affordable housing – green design.** Require affordable housing developments to prioritize green building design features that reduce monthly utility costs, enhance occupant health and lower the overall cost of housing.

- **Policy 7.2: Education.** Continue to provide technical support and information to educate the development community about green building.
- **Policy 7.3: Reducing GHG emissions.** In consulting with applicants and designing new facilities, prioritize the selection of green building design features that enhance the reduction of greenhouse gas emissions.
- **Policy 8.3: Single-occupant vehicle trip reductions.** Provide disincentives for single-occupant vehicle trips through parking supply and pricing controls in areas where parking supply is limited and alternative transportation modes are available.
- **Policy 8.4: Electric vehicles.** Encourage the use of electric vehicles (EV), including golf carts and Neighborhood Electric Vehicles (NEV), by encouraging developments to provide EV and NEV charging stations, street systems, and other infrastructure that support the use of EVs. Similarly, encourage the use of renewable energy sources to power EV plug-in stations.
- **Policy 8.5: Construction-related emissions.** Require construction activities, including on-site building and the transport of materials, to limit emissions and dust.
- **Policy 8.7: Transportation demand management.** Encourage employers to provide transit subsidies, bicycle facilities, alternative work schedules, ridesharing, telecommuting, work-at-home programs, employee education and preferential parking for carpools/vanpools.
- **Policy 8.8: Transportation management associations.** Encourage commercial, retail and residential developments to create and participate in transportation management associations.

Public Utilities & Services Element

- **Policy 4.1: Provide waste and recycling services.** Provide solid waste, recycling, and green waste services to the community at a reasonable rate.
- **Policy 4.2: Zero waste government operations.** Strive for zero waste government operations, modeling best practices in solid waste management and recycling for the rest of the community.
- **Policy 4.3: Waste reduction.** Seek to continually reduce Palm Desert’s rate of waste disposal per capita, and to increase the diversion rate of recycling and green waste.
- **Policy 4.4: Recycled building material.** Encourage the use of recycled building and infrastructure materials in new public and private development.
- **Policy 4.5: Paper waste reduction.** Reduce paper waste and encourage the use of recycled paper in City operations.

Chapter 10, City Center Area Plan

- **Policy 3.1: Pedestrian network.** Ensure that new public and private projects in the City Center consider pedestrian connectivity and contribute to improving the pedestrian network through the application of strategies such as sidewalk improvements and pedestrian crossings.

- **Policy 4.1: Bicycle network.** Facilitate the development of bicycle facilities that connect the City Center with surrounding neighborhoods, districts, and centers.
- **Policy 4.2: Pedestrian network.** Facilitate the development of pedestrian facilities that connect the City Center with surrounding neighborhoods, districts, and centers.
- **Policy 4.3: Transit.** Work with Sunline to improve transit access to and within the City Center.
- **Policy 4.4: City-wide connections.** Develop transit, alternative transportation, and wayfinding strategies that facilitate easy navigation to and from the City Center, the University Area, and other important centers within Palm Desert.

Implementation Actions

- **Action 1.2.** San Pablo Avenue: Introduce bike lane improvements.
- **Action 1.6.** City Center Area: Implement pedestrian improvements including sidewalks, crosswalks, street furniture, and other amenities during the construction of new roadways or the reconstruction of existing roadways.
- **Action 1.7.** City Center Area: Implement the proposed bicycle network by building the proposed facilities concurrent with the construction of new roadways or the reconstruction of existing roadways.
- **Action 2.1.** Periodically review fee structures for potential opportunities to provide financial and administrative incentives to support installation of renewable energy generators, energy efficiency measures, land use patterns, and other measures that reduce greenhouse gas emissions.
- **Action 2.2.** Proactively develop strategies to reduce the community's vulnerability to climate change impacts.
- **Action 2.3.** Work with nearby local and regional agencies to develop a community choice aggregation system in order to secure alternative energy supply contracts for the community.
- **Action 2.4.** Implement a program to install the latest energy-efficient technologies for street and parking lot lights to meet City and state standards.
- **Action 2.5.** Replace City fleet vehicles with low emission vehicles, such as EVs and Plug-in EVs wherever possible.
- **Action 2.10.** Develop a standardized citywide process to permit community gardens on vacant lots, rooftops, parkways and residential property.
- **Action 2.24.** Identify and update transportation service levels for all modes of transportation including autos, transit, bicycles, and pedestrians which will be included in the traffic study guidelines.
- **Action 2.25.** Regularly meet with Sunline Transit to discuss new development proposals and any updates to transit routes to support projects with an appropriate levels of density, mix of uses, and connections to the bicycle/pedestrian networks.

- **Action 2.26.** Regularly review bicycle and pedestrian connections to existing bus stops to maintain safe access for all users.
- **Action 2.31.** Regularly meet with Sunline Transit to review bus stop locations and amenities.
- **Action 2.33.** Regularly coordinate with Caltrans, RCTC, and CVAG for the planning, design, and construction of new transportation facilities including both roadways and non-motorized routes.
- **Action 2.34.** Regularly coordinate with CVAG for the siting of a Metrolink stop in Palm Desert.
- **Action 2.36.** Continue to confer and coordinate with the solid waste franchisee to fully meet and if possible exceed the provisions from AB 939 by expanding recycling programs that divert valuable resources from the waste stream and returning these materials to productive use.
- **Action 3.3.** Actively promote the City as a place for renewable energy generation, and a place for energy conservation businesses to locate.
- **Action 4.1.** Continue to consider and evaluate new construction practices and standards that increase building energy efficiency
- **Action 4.6.** Update development standards to allow flexible development standards in the university area to encourage a highly connected, highly walkable campus community.
- **Action 4.8.** Update the City Municipal code to allow the use of shared parking, unbundled parking, and other similar techniques for private land owners.
- **Action 4.9.** Develop and update guidelines for development projects that require connections from the site to the external pedestrian network (both for residential developing and on commercial sites).
- **Action 4.10.** Develop and update guidelines for development projects that promote connections to existing transit facilities.

Thresholds of Significance

For the purposes of this EIR, impacts on greenhouse gas emissions are considered significant if adoption and implementation of the General Plan update would:

Threshold	Determination
1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment or that would conflict with applicable plans, policies, or regulations adopted for the purpose of reducing greenhouse gas emissions	Significant and Unavoidable

Addressing GHG generation impacts requires an agency to make a determination as to what constitutes a significant impact. The amendments to the CEQA Guidelines specifically allow lead agencies to determine thresholds of significance that illustrate the extent of an impact and are a basis from which to apply mitigation measures. This

means that each agency is left to determine whether a project's GHG emissions will have a "significant" impact on the environment. The guidelines direct that agencies are to use "careful judgment" and "make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate" the project's GHG emissions (14 California Code of Regulations Section 15064.4(a)).

A number of expert agencies throughout the state have drafted or adopted varying threshold approaches and guidelines for analyzing operational GHG emissions in CEQA documents. The different thresholds include (1) compliance with a qualified GHG reduction strategy, (2) performance-based reductions, (3) numeric "bright-line" thresholds, and (4) efficiency-based thresholds.

As noted earlier, AB 32 is a legal mandate requiring that statewide GHG emissions be reduced to 1990 levels by 2020 and efficiency-based thresholds represent the rate of emission reductions needed to achieve a fair share of California's GHG emissions reduction target established under AB 32. In adopting AB 32, the legislature determined the necessary GHG reductions for the state to make in order to sufficiently offset its contribution to the cumulative climate change problem to reach 1990 levels. Compliance with AB 32 is the current adopted basis upon which an agency can base its significance threshold for evaluating a project's GHG impacts. The issue of whether a GHG emissions analysis must conform to the 2050 reduction target (40 percent of 1990 emissions by 2030 and 80 percent of 1990 emissions by 2050) expressed in Governor Brown's Executive Order (EO) B-30-15 and Governor Schwarzenegger's EO S-03-05 is currently before the Supreme Court in the *Cleveland National Forest Foundation v. San Diego Association of Governments* (hereafter SANDAG) case.

The SCAQMD has not announced when staff is expecting to present a finalized version of its GHG thresholds to the governing board. On September 28, 2010, the SCAQMD recommended an efficiency-based threshold for proposed general plans of 6.6 metric tons of CO₂e per service population (residents plus employees) per year in 2020 and 4.1 metric tons of CO₂e per service population per year in 2035. These efficiency-based thresholds were developed as part of the SCAQMD GHG CEQA Significance Threshold Working Group and is modified versions of thresholds developed by the Bay Area Air Quality Management District's efficiency-based thresholds for 2020 and 2035. The GHG Significance Threshold Working Group was formed to assist SCAQMD's efforts to develop a GHG significance threshold and is comprised of a wide variety of stakeholders including the State Office of Planning and Research (OPR), CARB, the Attorney General's Office, a variety of city and county planning departments in the South Coast Air Basin, various utilities such as sanitation and power companies throughout the South Coast Air Basin, industry groups, and environmental and professional organizations.

The 6.6 metric tons of CO₂e per service population per year in 2020 is based on a statewide service population in 2020. Relative to the 2035 target date, this target date is consistent with the GHG reduction target date of SB 375. Overall, GHG reductions by the SB 375 target date of 2035 would be approximately 40 percent. This 40 percent reduction was applied to the 2020 targets, resulting in the efficiency threshold of 4.1 for plans. Thus, the efficiency-based thresholds were developed to be consistent with CEQA requirements for developing significance thresholds, are supported by substantial evidence, and provides guidance to CEQA practitioners with regard to determining whether GHG emissions from a proposed general plan are significant.

For the purposes of this evaluation, the proposed project will be compared to the SCAQMD-recommended plan-level efficiency-based threshold of 6.6 metric tons of CO₂e per service population per year in 2020. This SCAQMD thresholds was prepared with the purpose of complying with the requirements of AB 32 and achieving the goals of the AB 32 Scoping Plan. In addition, the SCAQMD-recommended threshold of 4.1 metric tons of CO₂e per service population per year in 2035 is used to assess the project’s impacts to the post-2020 GHG reduction goals in California, identified in Governor’s Executive Order B-30-15 (2015), which seeks to achieve a reduction of GHG emissions of 40 percent below 1990 levels by 2030, and Executive Order 5-03-05 (2005), which seeks to achieve a reduction of GHG emissions of 80 percent below 1990 levels by 2050. Compliance with the SCAQMD’s 2035 significance threshold is an appropriate indicator as to whether a project would inhibit post-2020 GHG emissions reduction targets set by the State of California. Existing emissions modeling software is incapable of projecting emissions beyond the year 2035.

Additionally, the proposed project would be considered to result in a significant impact if it is shown to be inconsistent with the Southern California Association of Governments’ 2016 Regional Transportation Plan/Sustainable Communities Strategy.

Impacts from energy consumption are considered significant if adoption and implementation of the General Plan update would:

Threshold	Determination
2. Develop land uses and patterns that cause wasteful, inefficient, and unnecessary consumption of energy or construct new or retrofitted buildings that would have excessive energy requirements for daily operation.	Less Than Significant

In terms of energy consumption, the increased use of electricity and natural gas consumption is compared to the electricity and natural gas consumption attributable to Palm Desert in 2008, as shown in **Table 4.4-2** above. The increased use of transportation fuel associated with the likely consequences of adoption and implementation of the General Plan update are compared to current transportation fuel use in Palm Desert.

Impacts and Mitigation Measures

IMPACT 4.4-1 **Generate Greenhouse Gas Emissions, Either Directly or Indirectly, That May Have a Significant Impact on the Environment or Conflict with Applicable Plans, Policies, or Regulations Adopted for the Purpose of Reducing Greenhouse Gas Emissions.** *Implementation of the General Plan update will result in greenhouse gas emissions that would contribute to less than significant impacts on the environment. This is considered a **significant** impact.*

GHG emissions contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change. No single land use project could generate enough GHG emissions to noticeably change the global average temperature. The combination of GHG emissions from past, present, and future projects contributes substantially to the phenomenon of global climate change and its associated environmental impacts and as such is addressed only as a cumulative impact.

Construction GHG Emissions

It can be stated generally that development proposed under the General Plan update would result in direct emissions of GHGs from construction. However, quantifying the specific GHG emissions from future, short-term, temporary construction activities allowed under the General Plan update is not possible due to project-level variability and uncertainties related to future individual projects in terms of detailed site plans, construction schedules, equipment requirements, etc., none of which have yet been determined.

Future project-level analyses of GHG emission-related impacts, in accordance with CEQA requirements, would be conducted on a case-by-case basis as individual future development projects proceed. The SCAQMD has promulgated methodology protocols for the preparation of GHG emission analyses. For instance, the SCAQMD does not recommend a construction-related significance threshold but instead recommends that quantified construction emissions be amortized for a project lifetime of 30 years and added to the quantified total of operational emissions in order to ensure GHG reduction measures address construction GHG emissions as part of the operational reduction strategies.

Construction-related GHG exhaust emissions would be generated by sources such as heavy-duty off-road equipment, trucks hauling materials to the site, and worker commutes. Over the General Plan's time span, exhaust emission rates of the construction equipment fleet in California are expected to decrease due to advancements in engine technology, retrofits, and turnover in the equipment fleet, which would result in increased fuel efficiency, potentially more alternatively fueled equipment, and lower levels of GHG emissions. In addition, existing programs to improve air quality in California, such as the Diesel Risk Reduction Plan, will result in cleaner technology for virtually all of California's diesel engine fleets, including construction equipment. Measures implemented under these plans are likely to result in future fleets of construction equipment that are more efficient than existing fleets. For these reasons, levels of GHG emissions associated with construction activity are expected to decrease over time as new regulations are developed in response to AB 32.

In addition, all future discretionary development projects under the General Plan update would be required to analyze and mitigate for GHG emissions during development project review, pursuant to CEQA. Construction-related mitigation could include various measures such as an enforced limitation of off-road diesel equipment idling times below the State-mandated maximum of 5 minutes and/or an off-road construction equipment emissions reduction plan demonstrating that off-road equipment (portable and mobile) meets or is cleaner than Tier 3 engine emission specifications. Additional mitigation examples include the requirement to keep all construction equipment in proper tune in accordance with manufacturers' specifications, the use of late-model heavy-duty diesel-powered equipment during construction to the extent that it is readily available, the use of diesel-powered equipment that has been retrofitted with after-treatment products (e.g., engine catalysts), and the use of alternative-fuel construction equipment (i.e., compressed natural gas, liquid petroleum gas, and unleaded gasoline) to the extent that the equipment is readily available.

Adherence to SCAQMD guidance would reduce construction-generated GHG emissions.

Operational GHG Emissions

Table 4.4-3 summarizes the GHG emissions associated with full realization of the development potential allowed under the General Plan update. As shown, the full realization of the development potential allowed under the plan would result in approximately 105,449 metric tons of CO₂e annually under year 2020 conditions and 94,837 metric tons of CO₂e annually under year 2035 conditions. It is important to note that these estimates reflect combined emissions from all the potential new development allowed under the General Plan update and do not reflect emissions attributable to individual projects, as none are currently proposed. However, the General Plan does not include any provisions which require that its growth potential be attained. Not all of the identified land will be available for development at any given time based on site readiness, environmental constraints, market changes, and other factors.

Table 4.4-3 Greenhouse Gas Emissions – Project Operations (Metric Tons per Year)

Emissions Source	Existing Conditions (2008)	Full Development Potential in the Year 2020	Full Development Potential in the Year 2035
Energy	331,666	46,460	39,663
Area	N/A	1,791	1,791
Mobile	228,572	44,824	42,440
Waste	59,489	4,932	4,932
Water	N/A	7,442	6,011
Fugitive Emissions	1,458	0	0
Total	621,225	105,449	94,837

Source: CalEEMod 2013.2.2 (see **Appendix 4.4**); Existing Conditions sourced from Palm Desert 2009.

Notes:

1. The development potential includes 8,049 residential units and 5,829,400 square feet of nonresidential building space. The number of residential units is derived from Section 3.0, Project Description. The nonresidential square footage is derived from the current population breakdown of employment sectors in the city as disclosed in Figure 13.9 of the TBR (see Appendix A) and number of anticipated jobs as identified in Section 3.0, Project Description. The estimated amount of building space per employee is based on the U.S. Green Building Council's Building Area per Employee by Business Type (2008).
2. Energy source emissions account for CALGreen standards and Environmental Resources Element Policies 6.1 and 6.9.
3. Mobile source emissions account for Land Use & Community Character Element Policies 1.3, 2.1, 2.5, 2.9, 2.11, 2.12, 3.1, 3.7, 3.8, 3.11, 3.14, 3.15, 3.21, 4.2 – 4.5, 4.9, 5.4 – 5.6, 6.1 – 6.3 and Mobility Policies 1.1, 1.2, 3.1 – 3.6, 4.1 – 4.3, 5.1, 5.2, 8.3, 9.2 – 9.5.
4. Area source emissions account for SCAQMD Rule 445.
5. Fugitive emissions include refrigerants used within the City boundaries. Existing Conditions sourced from Palm Desert 2009, CalEEMod 2013.2.2 does not quantify fugitive emissions.

As previously stated, GHG emissions are evaluated to account for the full development potential allowed under the General Plan update during year 2020 and year 2035 conditions. The full development potential allowed under the General Plan update is

not expected to occur until at least 2040. Nonetheless, GHG emissions projections associated with the full development potential over existing conditions are compared to year 2020 and year 2035 patterns and efficiencies to provide a conservative analysis as well as to conform with the SCAQMD-recommended methodology for assessing GHG-related impacts from plan-level projects.

The General Plan update seeks to reduce the environmental impact (including GHG emissions) of land use development by increasing the viability of walking, biking, and transit by allowing mixed-use projects which provide land use arrangements that reduce reliance on the automobile, and thus reduce GHG emissions, and improve opportunities for pedestrian, bicycle, and transit use. Chapter 4.15, Transportation, identifies the effects of the General Plan update's policy provisions on traffic generation, and thus mobile source GHG emissions, which are the predominant source of GHG emissions in Palm Desert.

The SCAQMD's greenhouse gas emissions plan-level threshold is 6.6 metric tons of CO₂e per service population (residents plus employees) per year by the year 2020 and 4.1 metric tons of CO₂e per service population per year by the year 2035. The SCAQMD's approach is to identify the emissions level for which a plan would not be expected to substantially conflict with existing California legislation (AB 32) adopted to reduce statewide GHG emissions. As stated in Section 3.0, Project Description, there are currently 49,786 residents in Palm Desert and 36,874 jobs. Palm Desert is expected to accommodate 11,905 additional people and employment in the city is projected to increase by 13,662 jobs under the General Plan update. Therefore, the service population in Palm Desert would be 112,227 (49,786 existing residents + 11,905 new residents + 36,874 existing jobs + new 13,662 jobs).

Dividing the GHG emissions for each time period yields a metric ton per service population ratio of 6.5 for year 2020 conditions and 6.4 for year 2035 conditions. Therefore, as shown in **Table 4.4-4**, the 2020 conditions ratio is below the 2020 SCAQMD plan-level threshold of 6.6 metric tons per service population, yet the 2035 ratio exceeds the 2035 SCAQMD plan-level threshold of 4.1 metric tons per service population. [It is noted that the incremental development potential from existing conditions would produce GHG emissions below the SCAQMD plan-level threshold for both 2020 and 2035.]

SCAQMD thresholds were developed based on substantial evidence that such thresholds represent quantitative levels of GHG emissions, compliance with which means that the environmental impact of the GHG emissions will normally not be cumulatively considerable under CEQA. Compliance with such thresholds will be part of the solution to the cumulative GHG emissions problem, rather than hinder the State's ability to meet its goals of reduced statewide GHG emissions under AB 32. As identified, the resultant emissions contribution exceeds the 2035 SCAQMD plan-level threshold of 4.1 metric tons per service population. As shown, a percentage of GHG emissions would be generated by mobile sources, which is an emission source that cannot be regulated by the City of Palm Desert. The project would be required to implement energy efficiency design requirements consistent with the California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, described above. However, the resulting GHG emissions generated by the project are nevertheless considered **cumulatively considerable** and **significant and unavoidable**.

Table 4.4-4 General Plan Update GHG Emissions per Service Population

Per Capita Emissions	Emissions	Jobs	Population	Service Population	MTCO ₂ e /SP/yr	SCAQMD Threshold
Full Development Potential in the Year 2020	105,449	13,662	11,905	25,567	4.1	6.6
Full Development Potential in the Year 2035	94,837	13,662	11,905	25,567	3.7	4.1
Existing Conditions + Full Development Potential in the Year 2020	726,674	50,536	61,691	112,227	6.5	6.6
Existing Conditions + Full Development Potential in the Year 2035	716,062	50,536	61,691	112,227	6.4	4.1

Note: Table values equals existing development in Palm Desert + the full development potential allowed under the General Plan update of what is projected in 2020 and 2035. The full development potential allowed under the General Plan update is not expected to occur until at least 2040. The 2020 and 2035 full buildout numbers are not additive as full development potential allowed under the General Plan update is not expected to occur. Nonetheless, the model makes GHG emissions projections associated with the full development potential are compared to year 2020 and year 2035 regulatory environment and anticipated efficiencies to provide a conservative analysis as well as to conform with the SCAQMD-recommended methodology for assessing GHG-related impacts from plan-level projects.

Mitigation Measures

Implementation of programs and policies, derived largely from the General Plan, will further reduce potential GHG-related impacts as it is impossible, due to limitations in the modeling software, to quantify the effectiveness of every General Plan policy provision. Individual development projects will be required to undergo project-specific environmental review, and mitigation measures will be identified at that time to reduce any significant impacts. The projects must meet SCAQMD, Palm Desert Strategic Plan, and Palm Desert Environmental Sustainability Plan requirements.

Applicable Greenhouse Gas Emission Reduction Plan Consistency

The Southern California Association of Governments’ (SCAG’s) 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), adopted April 7, 2016, is a long-range visioning plan that balances future mobility and housing needs with economic, environmental and public health goals. As shown in **Table 4.4-3**, GHG emissions resulting from development-related transportation sources is a potent source of emissions, and therefore project comparison to the RTP/SCS is an appropriate indicator of whether the proposed project would inhibit the GHG reduction goals promulgated by the state. The RTP/SCS embodies a collective vision for the region’s future and is developed with input from local governments, county transportation commissions (CTCs), tribal governments, non-profit organizations, businesses and local stakeholders within the counties of Imperial, Los Angeles,

Orange, Riverside, San Bernardino and Ventura. SCAG’s 2016–2040 RTP/SCS establishes GHG emissions goals for automobiles and light-duty trucks for 2020 and 2035, establishes an overall GHG target for the project region consistent with both the target date of AB 32 (2020) and the post-2020 GHG reduction goals of Executive Order 5-03-05 (2005) and Executive Order B-30-15 (2015).

The 2016 RTP/SCS contains over 4,000 transportation projects—ranging from highway improvements, railroad grade separations, bicycle lanes, new transit hubs and replacement bridges. These future investments were included in county plans developed by the six CTCs and seek to reduce traffic bottlenecks, improve the efficiency of the region’s network and expand mobility choices for everyone. The RTP/SCS is an important planning document for the region, allowing project sponsors to qualify for federal funding. The plan takes into account operations and maintenance costs, to ensure reliability, longevity and cost effectiveness.

In addition, the RTP/SCS is supported by a combination of transportation and land use strategies that help the region achieve state greenhouse gas emission reduction goals and federal Clean Air Act requirements, preserve open space areas, improve public health and roadway safety, support our vital goods movement industry and utilize resources more efficiently.

The proposed project’s consistency with the RTP/SCS goals is analyzed in detail in **Table 4.4-5**.

Table 4.4-5 Coachella Valley 2005 Greenhouse Gas Emissions

SCAG Goals	Compliance with Goal
GOAL 1: Align the plan investments and policies with improving regional economic development and competitiveness.	Not Applicable: This is not a project-specific policy and is therefore not applicable.
GOAL 2: Maximize mobility and accessibility for all people and goods in the region.	<p>Consistent: Improvements to the transportation network in Palm Desert are developed and maintained to meet the needs of local and regional transportation and to ensure efficient mobility. A number of regional and local plans and programs are used to guide development and maintenance of transportation networks, including but not limited to:</p> <ul style="list-style-type: none"> • Caltrans Traffic Impact Studies Guidelines • Caltrans Highway Capacity Manual • SCAG RTP/SCS <p>Also see proposed Land Use & Community Character Element Policies 3.11, 3.14, 3.15, 3.21, 4.9, 5.4, 5.5, 6.1, 6.3; proposed Mobility Element Policies 1.1, 1.2, 3.4, 5.1, 9.2, 9.4, 9.5; proposed City Center Area Plan Policy 4.3; and proposed Implementation Actions 2.33 and 2.34.</p>

Table 4.4-5, continued

SCAG Goals	Compliance with Goal
<p>GOAL 3: Ensure travel safety and reliability for all people and goods in the region.</p>	<p>Consistent: All modes of transit in Palm Desert are required to follow safety standards set by corresponding regulatory documents. Pedestrian walkways and bicycle routes must follow safety precautions and standards established by local (e.g., City of Palm Desert, County of Riverside) and regional (e.g., SCAG, Caltrans) agencies. Roadways for motorists must follow safety standards established for the local and regional plans.</p> <p>Also see proposed Land Use & Community Character Element Policy 6.1; proposed Mobility Element Policies 1.1, 1.2, 3.1, 3.2, 3.5, 3.6, 4.2; and proposed Implementation Action 2.34.</p>
<p>GOAL 4: Preserve and ensure a sustainable regional transportation system.</p>	<p>Consistent: All new roadway developments and improvements to the existing transportation network must be assessed with some level of traffic analysis (e.g., traffic assessments, traffic impact studies) to determine how the developments would impact existing traffic capacities and to determine the needs for improving future traffic capacities.</p> <p>Also see proposed Mobility Element Policies 5.2, 8.3, 9.2, 9.3, 9.4, 9.5; and proposed Implementation Actions 2.31 and 2.33.</p>
<p>GOAL 5: Maximize the productivity of our transportation system.</p>	<p>Consistent: The local and regional transportation system would be improved and maintained to encourage efficiency and productivity. The City’s Public Works Department oversees the improvement and maintenance of all aspects of the public right-of-way on an as-needed basis. The City also strives to maximize productivity of the region’s public transportation system (i.e., bus, bicycle) for residents, visitors, and workers coming into and out of Palm Desert.</p> <p>Also see proposed Land Use & Community Character Element Policies 3.11, 3.14, 3.15, 3.21, 4.9, 5.4, 5.5, 6.1, 6.3; proposed Mobility Element Policies 5.2, 8.3, 9.2, 9.3, 9.4, 9.5; and proposed Implementation Actions 2.31 and 2.33.</p>
<p>GOAL 6: Protect the environment and health of our residents by improving air quality and encouraging active transportation (e.g., bicycling and walking).</p>	<p>Consistent: The reduction of energy use, improvement of air quality, and promotion of more environmentally sustainable development are encouraged through the development of alternative transportation methods, green design techniques for buildings, and other energy-reducing techniques. For example, development</p>

Table 4.4-5, continued

SCAG Goals	Compliance with Goal
	<p>projects are required to comply with the provisions of the California Building and Energy Efficiency Standards and the Green Building Standards Code (CALGreen). The City also strives to maximize the protection of the environment and improvement of air quality by encouraging and improving the use of the region’s public transportation system (i.e., bus, bicycle) for residents, visitors, and workers coming into and out of Palm Desert.</p> <p>Also see proposed Land Use & Community Character Element Policies 2.1, 2.5, 2.11, 3.1, 3.7, 3.15; proposed Mobility Element Policies 1.1, 3.1, 3.2, 4.1, 4.3, 5.10, 6.3, 6.4, 6.5; proposed City Center Area Plan Policies 3.1, 4.1, 4.2; and proposed Implementation Actions 2.24 and 2.26.</p>
<p>GOAL 7: Actively encourage and create incentives for energy efficiency, where possible.</p>	<p>Consistent: See proposed Environmental Resources Element Policies 5.6, 5.10, 5.16, 5.17, 6.1, 6.2, 6.3, 6.4, 6.5, 6.7, 6.9, 6.10, 6.11, 7.3; proposed Public Utilities & Services Element policies 4.2, 4.3, 4.4; and proposed Implementation Actions 2.3, 2.4, 2.5,</p>
<p>GOAL 8: Encourage land use and growth patterns that facilitate transit and non-motorized transportation.</p>	<p>Consistent: See response to RTP/SCS Goal 6. Also see proposed Land Use & Community Character Element Policy 5.4; proposed Mobility Element Policies 5.1, 5.2, 8.3, 9.4; City Center Area Plan Policy 4.3; and proposed Implementation Actions 2.25, 2.31 and 2.34</p>
<p>GOAL 9: Maximize the security of our transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies.</p>	<p>Consistent: The City of Palm Desert monitors existing and newly constructed roadways and transit routes to determine the adequacy and safety of these systems. Other local and regional agencies (i.e., Caltrans and SCAG) work with the City to manage these systems. Security situations involving roadways and evacuations would be addressed in the County of Riverside’s emergency management plans (e.g., Riverside County Emergency Operations Plan) developed in accordance with the state and federal mandated emergency management regulations.</p>

As shown in **Table 4.4-5**, the project does not conflict with the stated goals of the RTP/SCS. For these reasons, the proposed project would not interfere with SCAG’s ability to achieve the region’s mobile source GHG reduction targets outlined in the 2016 RTP/SCS.

Anticipated Climate Change Effects on the Planning Area

Although CEQA does not require any analysis of the environment's impacts on proposed project, this discussion considers the potential impacts of anticipated climate change effects on the Planning Area. Human-induced increases in GHG concentrations in the atmosphere have led to increased global average temperatures (global warming) through the intensification of the greenhouse effect and resulted in associated changes in local, regional, and global average climatic conditions. Although there is a strong scientific consensus that global climate change is occurring and is influenced by human activity, there is less certainty as to the timing, severity, and potential consequences of climate change. Scientists have identified several ways in which global climate change could alter the physical environment in California (IPCC 2014; DWR 2008).

Although uncertainty exists as to the precise levels of these impacts, there is consensus regarding the range that can be expected. This analysis focuses on the effects of global climate change that might have a direct, reasonably foreseeable effect on physical conditions in the Planning Area. Therefore, this analysis gives greatest consideration to climate change data with more consistency anticipating future conditions, and thus a probability for a greater likelihood of occurring within a reasonable time frame (i.e., approximately 100 years).

Temperature

An increase in average annual temperatures, by itself, would have little effect on the Planning Area, other than adjustments to new development anticipated under the General Plan update in response to warmer temperatures. For example, increased evapotranspiration rates would affect detention basins and landscaped areas, resulting in increased irrigation demand, and potentially greater overall energy consumption to meet space cooling needs.

Precipitation and Fire Risk

Although global climate change models generally predict an increase in overall precipitation on a worldwide scale, there is no such consistency among the results of regional models applied to California. Given the uncertainty associated with projecting the amount of annual precipitation, any conclusion regarding significance of potential effects of climate change on precipitation volumes as they relate to reasonably foreseeable direct effects on physical conditions in the Planning Area would be speculative.

Based on the results of a variety of regional climate models and literature, it is reasonably foreseeable that snowpack would melt more rapidly. Given the magnitude and timing of the increase in winter runoff and the associated changes in reservoir use that may occur, determining the exact impact on the Planning Area would be speculative. In addition to potential effects on runoff and water supply, reduced precipitation could increase the frequency and/or severity of wildfires.

Although various climate change models predict some increase in variability of weather patterns and an increasing incidence of extreme weather events, there is no consistency among the model results, with some predicting increased incidents of droughts and others predicting increased frequency of severe storm events.

Sea Level

A consistent rise in sea level has been recorded worldwide over the last 100 years. Recorded rises in sea level along the California coast correlate well with the worldwide data. Based on the results of various global climate change models, sea level rise is expected to continue. Based on the consistency in past trends and future projections, and the correlation between data collected globally and data specific to California, it is reasonably foreseeable that some amount of sea level rise will occur along the California coast over the next 100 years. While sea level rise induced by climate change is reasonably certain, the Planning Area is not located in an area that would be affected by sea level rise.

Water Supply

Several recent studies have shown that existing water supply systems are sensitive to climate change. Potential impacts of climate change on water supply and availability could directly and indirectly affect a wide range of institutional, economic, and societal factors. Residential, industrial, and agricultural land uses all are affected by the cost and security of water supply. Much uncertainty remains, however, with respect to the overall impact of global climate change on future water supplies.

Little work has been performed on the effects of climate change on specific groundwater basins or groundwater recharge characteristics. Changes in rainfall and changes in the timing of the groundwater recharge season would result in changes in recharge. Warmer temperatures could increase the period where water is on the ground by reducing soil freeze. Conversely, warmer temperatures could lead to higher evaporation or shorter rainfall seasons, which could mean longer droughts than in past years. The specific extent to which various meteorological conditions will change and the impact of that change on groundwater are both unknown. A reduced snowpack, coupled with changes in precipitation, could require a change in the operating procedures for California's existing dams and conveyance facilities (Pacific Institute 2005).

In 2003, the California Energy Commission's Public Interest Energy Research (PIER) program established the California Climate Change Center (CCCC) to conduct climate change research relevant to the state. Executive Order S-3-05 called for the California Environmental Protection Agency (CalEPA) to prepare biennial science reports on the potential impact of continued climate change on certain sectors of California's economy. CalEPA entrusted PIER and its CCCC to lead this effort. The climate change analysis contained in its first biennial science report concluded that major changes in water management and allocation systems could be required in order to adapt to the change. As less winter precipitation falls as snow, and more as rain, water managers would have to balance the need to construct reservoirs for water supply with the need to maintain reservoir storage for winter flood control. Additional storage could be developed, but at high environmental and economic costs.

Climate change is expected to have a greater effect in Southern California and on agricultural users in the Central Valley. Based on the conclusions of current literature regarding California's ability to adapt to global climate change, it is reasonably expected that over time, the state's water system will be modified to be able to address the projected climate changes, e.g., under dry and/or warm climate scenarios. Although coping with climate change effects on California's water supply could come at a considerable cost, based on a thorough investigation of the issue, it is reasonably

expected that statewide implementation of adaptation measures will likely enable California’s water system to reliably meet future water demands. Given known projections, it is not useful to scale regional and state trends down to predict specific impacts in the Planning Area.

Water Quality

Although there are various ways in which climate change could affect water quality, effects could be positive or negative depending on a variety of conditions. In addition, current water quality conditions in regional surface waters depend in large part on human activities, and this would continue into the future. The effects of climate change on water quality could be alleviated by, exacerbated by, or overwhelmed by effects directly related to localized human actions.

Summary

Potential climate change effects would have environmental consequences throughout the Planning Area, although prediction of particular direct effects on physical conditions would be speculative. Implementation of the General Plan update goals and policies would reduce the extent and severity of climate change–associated impacts in the Planning Area by proactively planning for changes in climate and conditions, creating a policy framework to coordinate with state agencies planning for climate change, and providing methods to adapt to anticipated changes.

IMPACT 4.4-2 **Develop Land Uses and Patterns That Cause Wasteful, Inefficient, and Unnecessary Consumption of Energy or Construct New or Retrofitted Buildings That Would Have Excessive Energy Requirements for Daily Operation.** *Implementation of the General Plan update will result in energy consumption that would contribute to less than significant impacts on the environment. This is considered a less than **significant** impact.*

As shown in **Table 4.4-2**, the City of Palm Desert consumed 759,776,308 kilowatt hours of electricity and 19,191,985 therms of natural gas in the year 2008. According to CARB’s EMFAC2014 modeling software, 38,910,825 gallons of automotive fuel were consumed daily in Palm Desert in the year 2015. Energy consumption associated with the potential new development instigated by the proposed project is summarized in **Table 4.4-6**.

Table 4.4-6 General Plan Update Energy Consumption Potential

Energy Type	Increase in Annual Energy Consumption	Percentage Increase
Electricity Consumption ¹	117,358,730	15.4
Natural Gas Consumption ¹	3,640,681	18.9
Automotive Fuel Consumption ²	5,445,435	13.9

Sources: ¹CalEEMod v. 2013.2.2; ²EMFAC2014 (CARB 2014)

Notes: The project increases in electricity and natural gas consumption are compared with electricity and natural gas consumption in Palm Desert in 2008. The project increases in automotive fuel consumption are compared with the citywide fuel consumption in 2015.

As shown in **Table 4.4-6**, the increase in electricity usage as a result of full buildout of the development potential allowed under the proposed project would constitute an approximate 15.4 percent increase in the typical annual electricity consumption and an approximate 18.9 percent increase in the typical annual natural gas consumption attributable to all buildings in Palm Desert. The increase in automotive fuel would increase use in the county by 13.9 percent.

The development allowed under the proposed project would be required to comply with Title 24 Building Energy Efficiency Standards, which provide minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting. Implementation of the Title 24 standards significantly reduces energy usage. Furthermore, the electricity provider, SCE, is subject to California's Renewables Portfolio Standard (RPS). The RPS requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020 and to 50 percent of total procurement by 2030. Renewable energy is generally defined as energy that comes from resources which are naturally replenished within a human timescale such as sunlight, wind, tides, waves, and geothermal heat. The increase in reliance of such energy resources further ensures projects will not result in the waste of the finite energy resources.

SCE currently provides electrical services, while natural gas is provided by the Southern California Gas Company. These utility companies would continue to provide these services and are required by the California Public Utilities Commission to update existing systems to meet any additional demand. Individual development projects will be required to undergo project-specific environmental review, and mitigation measures will be identified at that time to reduce any significant impacts. The City's ongoing development review process includes a review and comment opportunity for privately owned utility companies, including SCE and the Southern California Gas Company, to allow informed input from each utility company on all development proposals. The input facilitates a detailed review of all projects by service purveyors to assess the potential demands for utility services on a project-by-project basis.

The ability of utility providers to provide services concurrently with each project is evaluated during the development review process. Utility companies are bound by contract to update energy systems to meet any additional demand.

Summary

For the reasons described above, the proposed project would not place a substantial demand on regional energy supply or require significant additional capacity, or significantly increase peak and base period electricity demand, or cause wasteful, inefficient, and unnecessary consumption of energy during project construction, operation, and/or maintenance, or preempt future energy development or future energy conservation. Therefore, this impact would be **less than significant**.

Cumulative Impacts and Mitigation Measures

As discussed in Subsection 4.4.1, Introduction, the topic of GHG emissions is inherently a cumulative impact. Though significance thresholds can be developed by air districts, state regulatory agencies, or federal regulatory agencies, these thresholds and their related goals are ultimately design to effect change at a global level. While the

evaluation presented above is focused on the General Plan update, and is specific to the project, it is also considered cumulative because it is only as a contribution to a cumulative effect that the project-specific emissions have environmental consequences. Therefore, the GHG analysis provided above includes the analysis of both the project and cumulative impacts.

Quantifying and/or analyzing energy consumption by cumulative projects in the area would be speculative in nature, as the proposed land use types, intensities, and sizes of projects are unknown at this time. However, each cumulative project would require separate discretionary approval and CEQA assessment, which would address potential energy consumption impacts and identify necessary mitigation measures, where appropriate. As noted above, the proposed project would not result in significant energy consumption impacts. The proposed project would not be considered inefficient, wasteful, or unnecessary with regard to energy. Thus, the proposed project and identified cumulative projects are not anticipated to result in a significant cumulative impact.

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4.5. Biological Resources

Introduction

This resource section evaluates the potential environmental effects related to biological resources associated with adoption and implementation of the General Plan update. The analysis includes a review of special-status species, sensitive habitats, wetlands, wildlife movement, and planning efforts associated with biological resources. Goals and policies presented in the General Plan Environmental Resources Element intend to protect natural terrestrial features communities by protecting these spaces that are fundamental components of Palm Desert’s environment.

NOP Comments: No comment letters were received in response to the Notice of Preparation (NOP) addressing biological resources concerns.

Reference Information: Information for this resource section is based on numerous references, including the Palm Desert General Plan Update Technical Background Report (TBR) and other publicly available documents. The TBR is attached as **Appendix 4.0**. This EIR, including the TBR, is also available electronically on the City’s website (<http://www.cityofpalmdesert.org/our-city/general-plan-update>).

Environmental Setting

Section 6.2 of **Appendix 4.0** describes the vegetation, habitat, and wildlife in the Planning Area, which includes the lands within the Palm Desert city limits and Sphere of Influence, including special-status species, sensitive habitats, and wetlands. A summary of that information is presented below. The CNDDDB results within 1 mile of the Planning Area are depicted on **Figure 5.2** of the TBR (**Appendix 4.0**) and listed in **Table 4.5-1**.

Table 4.5-1. Previously Recorded CNDDDB Occurrences of Special-Status Species within 1 Mile of the Planning Area

Map ID	Scientific Name	Common Name	Federal Listing	State Listing	Rare Plant Rank
1	<i>Abronia villosa</i> var. <i>aurita</i>	chaparral sand-verbena	-	-	1B.1
2	<i>Acmispon haydonii</i>	pygmy lotus	-	-	1B.3
3	<i>Anniella pulchra pulchra</i>	silvery legless lizard	-	SSC	
4	<i>Aquila chrysaetos</i>	golden eagle	-	-	
5	<i>Astragalus lentiginosus</i> var. <i>coachellae</i>	Coachella Valley milk-vetch	E	-	1B.2
6	<i>Athene cunicularia</i>	burrowing owl	-	SSC	
7	<i>Ayenia compacta</i>	California ayenia	-	-	2B.3

Table 4.5-1, continued

Map ID	Scientific Name	Common Name	Federal Listing	State Listing	Rare Plant Rank
8	<i>Batrachoseps major aridus</i>	desert slender salamander	E	E	
9	<i>Chaetodipus fallax pallidus</i>	pallid San Diego pocket mouse	-	SSC	
10	<i>Chamaesyce abramsiana</i>	Abrams' spurge	-	-	2B.2
11	<i>Chamaesyce platysperma</i>	flat-seeded spurge	-	-	1B.2
12	<i>Chorizanthe xanti</i> var. <i>leucotheca</i>	white-bracted spineflower	-	-	1B.2
13	<i>Crotalus ruber</i>	red-diamond rattlesnake	-	SSC	
14	<i>Cyprinodon macularius</i>	desert pupfish	E	E	
15	<i>Desert Fan Palm Oasis Woodland</i>	Desert Fan Palm Oasis Woodland	-	X	
16	<i>Dinacoma caseyi</i>	Casey's June beetle	E	-	
17	<i>Dipodomys merriami collinus</i>	Earthquake Merriam's kangaroo rat	-	-	
18	<i>Ditaxis claryana</i>	glandular ditaxis	-	-	2B.2
19	<i>Ditaxis serrata</i> var. <i>californica</i>	California ditaxis	-	-	3.2
20	<i>Empidonax traillii extimus</i>	southwestern willow flycatcher	E	E	
21	<i>Falco mexicanus</i>	prairie falcon	-	-	
22	<i>Gopherus agassizii</i>	desert tortoise	T	T	
23	<i>Heuchera hirsutissima</i>	shaggy-haired alumroot	-	-	1B.3
24	<i>Lanius ludovicianus</i>	loggerhead shrike	-	SSC	
25	<i>Lasiurus xanthinus</i>	western yellow bat	-	SSC	

Table 4.5-1, continued

Map ID	Scientific Name	Common Name	Federal Listing	State Listing	Rare Plant Rank
26	<i>Leptosiphon floribundus</i> ssp. <i>hallii</i>	Santa Rosa Mountains leptosiphon	-	-	1B.3
27	<i>Macrobaenetes valgum</i>	Coachella giant sand treader cricket	-	-	
28	<i>Marina orcuttii</i> var. <i>orcuttii</i>	California marina	-	-	1B.3
29	<i>Matelea parvifolia</i>	spear-leaf matelea	-	-	2B.3
30	<i>Nemacaulis denudata</i> var. <i>gracilis</i>	slender cottonheads	-	-	2B.2
31	<i>Neotoma albigula venusta</i>	Colorado Valley woodrat	-	SSC	
32	<i>Oliarces clara</i>	cheeseweed owlfly (cheeseweed moth lacewing)	-	-	
33	<i>Ovis canadensis nelsoni</i> pop. 2	Peninsular bighorn sheep DPS	E	T	
34	<i>Perognathus longimembris bangsi</i>	Palm Springs pocket mouse	-	SSC	
35	<i>Perognathus longimembris brevinasus</i>	Los Angeles pocket mouse	-	SSC	
36	<i>Phrynosoma blainvillii</i>	coast horned lizard	-	SSC	
37	<i>Phrynosoma mcallii</i>	flat-tailed horned lizard	-	SSC	
38	<i>Polioptila melanura</i>	black-tailed gnatcatcher	-	-	
39	<i>Pseudorontium cyathiferum</i>	Deep Canyon snapdragon	-	-	2B.3
40	<i>Pyrocephalus rubinus</i>	vermillion flycatcher	-	SSC	
41	<i>Selaginella eremophila</i>	desert spike-moss	-	-	2B.2

Table 4.5-1, continued

Map ID	Scientific Name	Common Name	Federal Listing	State Listing	Rare Plant Rank
42	<i>Senna covesii</i>	Cove's cassia	-	-	2B.2
43	<i>Stemodia durantifolia</i>	purple stemodia	-	-	2B.1
44	<i>Stenopelmatus cahuilaensis</i>	Coachella Valley jerusalem cricket	-	-	
45	<i>Toxostoma crissale</i>	Crissal thrasher	-	SSC	
46	<i>Toxostoma lecontei</i>	Le Conte's thrasher	-	SSC	
47	<i>Uma inornata</i>	Coachella Valley fringe-toed lizard	T	E	
48	<i>Xerospermophilus tereticaudus chlorus</i>	Palm Springs round-tailed ground squirrel	-	SSC	

Source: Technical Background Report (2015; Appendix 4.0)

Vegetative Communities: The vegetative communities occurring in the Planning Area include Sonoran mixed woody and succulent scrub, stabilized shielded desert sand fields, peninsular juniper woodland and scrub, Sonoran creosote bush scrub, desert fan palm oasis woodland, desert dry wash woodland, and active shielded desert dunes. Urban land uses encompass the majority of the Planning Area.

Urban land uses are classified as areas that have been heavily modified by humans, including roadways, existing buildings, and structures, as well as recreation fields, small parks, lawns, and other landscaped vegetation. Because of the high degree of disturbance in these areas, they generally have low habitat value for wildlife. However, migratory birds may find limited nesting and foraging opportunities in trees and shrubs scattered throughout urban areas.

Special-Status Plants: 10 special-status plant species are known to occur in the Planning Area. An additional 12 species were determined to have the potential to occur in the Planning Area based on the presence of suitable habitat and previous occurrences in the vicinity (5-mile radius around the Planning Area). These species are described below based on data obtained from the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants of California. **Table 4.5-2** summarizes the special-status plant species known to occur in the Planning Area.

Special-Status Wildlife: According to the TBR, 15 special-status wildlife species are known to occur in the Planning Area. An additional 15 species were determined to have the potential to occur in the Planning Area based on the presence of suitable habitat, previous occurrences in the vicinity, and/or overlap with Coachella Valley Multi-Species Habitat Conservation Plan (CVMSHCP) species distribution models. These species are described in in **Table 4.5-3** as well as the TBR (**Appendix 4.0**).

Table 4.5-2. Special-Status Plant Species in the Planning Area

Common Name	CNPS	
	Rare Plant Rank	Location within Planning Area
Known to Occur in the Planning Area		
Chaparral Sand-Verbena	1B.1	The dune habitats, sand fields, and areas with sandy soil provide suitable habitat for this species. Chaparral sand-verbena is known to occur within the Planning Area (CDFW 2014d).
Coachella Valley Milk-Vetch	1B.2	The Thousand Palms System federally designated critical habitat unit (#4) is in the Coachella Valley Preserve, adjacent to the Planning Area.
California Ayenia	2B.3	It is typically found growing on rocky substrates in Mojavean and Sonoran desert scrub habitats at elevations ranging from 492 to 3,592 feet (150–1,095 m) amsl. This species is known to occur within the Planning Area (CDFW 2014d). The scrub habitats and rocky areas in the Planning Area provide suitable habitat for this species
Abrams' Spurge	2B.2	It is typically found growing on sandy substrates in Mojavean and Sonoran desert scrub habitats at elevations ranging from 16 feet (5 m) below mean sea level (bmsl) to 3,002 feet (915 m) amsl. Abrams' spurge is possibly threatened by vehicles, solar energy development, and non-native plants. This species is known to occur within the Planning Area (CDFW 2014d). The scrub habitats and sandy areas in the Planning Area provide suitable habitat for this species.
California Marina	1B.3	It is typically found growing on rocky substrates in chaparral, pinyon and juniper woodland, and Sonoran desert scrub habitats at elevations ranging from 3,445 to 3,806 feet (1,050–1,160 m) amsl. This species is known to occur within the Planning Area (CDFW 2014d). The juniper woodland and Sonoran scrub in the Planning Area provide suitable habitat for this species.
Spearleaf	2B.3	It is typically found growing on rocky substrates in Mojavean and Sonoran desert scrub habitats at elevations ranging from 1,444 to 3,593 feet (440–1,095 m) amsl. This species is known to occur within the Planning Area (CDFW 2014d). The Sonoran scrub in the Planning Area provides suitable habitat for this species.
Deep Canyon Snapdragon	2B.3	It is typically found growing on rocky substrates in Sonoran desert scrub habitat at elevations up to 2,625 feet (800 m) amsl. Deep Canyon snapdragon is known to occur within the Planning Area (CDFW 2014d). The Sonoran scrub in the Planning Area provides suitable habitat for this species.
Desert Spike-Moss	2B.2	This species blooms from March through June. It is typically found growing on sandy substrates in Sonoran desert scrub habitat at elevations ranging from 656 to 2,953 feet (200–900 m) amsl. Desert spike-moss is known to occur within the Planning Area (CDFW 2014d). The Sonoran scrub in the Planning Area provide suitable habitat for this species.
Coves' Cassia	2B.2	It is typically found growing on rocky substrates in Mojavean and Sonoran desert scrub habitats at elevations ranging from 935 to 3,510 feet (285–1,070 m) amsl. This species is known to occur within the Planning Area (CDFW 2014d). The Sonoran scrub in the Planning Area provides suitable habitat for this species.

Table 4.5-2, continued

Common Name	CNPS	
	Rare Plant Rank	Location within Planning Area
Purple Stemodia	2B.1	It is typically found growing on mesic, sandy substrates in Sonoran desert scrub habitat at elevations ranging from 591 to 984 feet (180–300 m) amsl. Purple stemodia is threatened by development. This species is known to occur within the Planning Area (CDFW 2014d). The Sonoran scrub in the Planning Area provides suitable habitat for this species.
<i>May Occur in the Planning Area</i>		
Pygmy Lotus	1B.3	It is typically found growing on rocky substrates in pinyon and juniper woodland and Sonoran desert scrub habitats at elevations ranging from 1,706 to 3,937 feet (520–1,200 m) amsl. Pygmy lotus is potentially threatened by vehicles and non-native plants. There is one record of this species occurring within 1 mile of the Planning Area (CDFW 2014d). The presence of nearby occurrences and the presence of suitable habitat, such as juniper woodland and Sonoran scrub, result in the potential for this species to occur in the Planning Area.
Arizona Spurge	2B.3	It is typically found growing on sandy substrates in Sonoran desert scrub habitat at elevations ranging from 164 to 984 feet (50–300 m) amsl. There are no records of Arizona spurge occurring within 1 mile of the Planning Area; however, there are two occurrences within a 5-mile radius of the Planning Area (CDFW 2014d). The presence of nearby occurrences and the presence of suitable habitat, such as Sonoran scrub, result in the potential for this species to occur in the Planning Area.
Flat-Seeded Spurge	1B.2	It is typically found growing on sandy substrates in Sonoran desert scrub and desert dune habitats at elevations ranging from 213 to 328 feet (65–100 m) amsl. There is one record of flat-seeded spurge occurring within 1 mile of the Planning Area (CDFW 2014d). Sonoran scrub and desert dunes in the Planning Area may provide suitable habitat for this species. The presence of nearby occurrences and the presence of suitable habitat result in the potential for this species to occur in the Planning Area.
White-Bracted Spineflower	1B.2	It is typically found growing on sandy or gravelly substrates in Mojavean desert scrub, pinyon and juniper woodland, and on alluvial fans in coastal scrub habitats at elevations ranging from 984 to 3,937 feet (300–1,200 m) amsl. This species is threatened by development, flood control projects, mining, and vehicles. There is one record of white-bracted spineflower occurring within 1 mile of the Planning Area and a total of four occurrences within a 5-mile radius (CDFW 2014d). The presence of nearby occurrences and the presence of suitable habitat, such as juniper woodland, result in the potential for this species to occur in the Planning Area.
Glandular Ditaxis	2B.2	It is typically found growing on sandy substrate in Mojavean and Sonoran desert scrubs at elevations up to 1,526 feet (465 m) amsl. There are three records of glandular ditaxis within 1 mile of the Planning Area and a total of six occurrences within a 5-mile radius (CDFW 2014d). Sonoran scrub in the Planning Area may provide suitable habitat for this species. The presence of nearby occurrences and the presence of suitable habitat result in the potential for this species to occur in the Planning Area.
Santa Rosa Mountains Leptosiphon	1B.3	It is associated with pinyon and juniper woodland and Sonoran desert scrub at elevations ranging from 3,281 to 6,562 feet (1,000–2,000 m) amsl. This species may be threatened by recreational activities. There is one record of this species within 1 mile of the Planning Area and a total of three occurrences within a 5-mile radius (CDFW 2014d). Sonoran scrub and juniper woodland communities in the Planning Area may provide suitable habitat for this species. The presence of nearby occurrences and the presence of suitable habitat result in the potential for this species to occur in the Planning Area.

Table 4.5-2, continued

Common Name	CNPS	
	Rare Plant Rank	Location within Planning Area
Slender Cottonheads	2B.2	It is typically found growing in coastal dunes, desert dunes, and Sonoran desert scrub at elevations ranging from 164 to 328 feet (50–100 m) amsl. In the Coachella Valley, this species is threatened by urbanization. There are two records of this species within 1 mile of the Planning Area and a total of three occurrences within a 5-mile radius (CDFW 2014d). Sonoran scrub and desert dune communities in the Planning Area may provide suitable habitat for this species. The presence of nearby occurrences and the presence of suitable habitat result in the potential for this species to occur in the Planning Area.
Latimer's Woodland Gilia	1B.2	Latimer's woodland gilia can be found at elevations ranging from 1,312 to 6,234 feet (400–1,900 m) amsl. It is associated with rocky or sandy areas, often in washes and often on granitic substrates. Latimer's woodland gilia is found growing in chaparral, Mojavean desert scrub, and pinyon and juniper woodland. There are no records of this species within 1 mile of the Planning Area; however, there is one occurrence within a 5-mile radius (CDFW 2014d). The presence of nearby occurrences and the presence of suitable habitat, such as juniper woodland, result in the potential for this species to occur in the Planning Area.
White-Margined Oxytheca	1B.3	It is typically found associated with chaparral, lower montane coniferous forest, and pinyon and juniper woodland at elevations ranging from 3,937 to 8,202 feet (1,200–2,500 m) amsl. This species is threatened by development, grazing, recreational activities, and trampling. There are no records of this species within 1 mile of the Planning Area; however, there are four occurrences within a 5-mile radius (CDFW 2014d). The presence of nearby occurrences and the presence of suitable habitat, such as juniper woodland, result in the potential for this species to occur in the Planning Area.
Southern Jewelflower	1B.3	This species blooms from April through July and can be found at elevations ranging from 2,953 to 7,546 feet (900–2,300 m) amsl. It can be found on rocky substrate in chaparral, lower montane coniferous forests, and pinyon and juniper woodlands. There are no records of this species within 1 mile of the Planning Area; however, there are three occurrences within a 5-mile radius (CDFW 2014d). The presence of nearby occurrences and the presence of suitable habitat, such as juniper woodland, result in the potential for this species to occur in the Planning Area.
Rigid Fringepod	1B.2	It is typically associated with dry rocky slopes in pinyon and juniper woodland at elevations ranging from 1,969 to 7,218 feet (600–2,200 m) amsl. This species may be threatened by development and non-native plants. There are no records of this species within 1 mile of the Planning Area; however, there is one occurrence within a 5-mile radius (CDFW 2014d). The presence of nearby occurrences and the presence of suitable habitat, such as juniper woodland, result in the potential for this species to occur in the Planning Area.
Mecca-Aster	1B.2	It is typically associated with Sonoran desert scrub at elevations ranging from 66 to 1,312 feet (20–400 m) amsl. This species is threatened by vehicles and may be threatened by development and recreational activities. There are no records of this species within 1 mile of the Planning Area; however, there are six occurrences within a 5-mile radius (CDFW 2014d). The presence of nearby occurrences and the presence of suitable habitat, such as Sonoran scrub, result in the potential for this species to occur in the Planning Area. Mecca-aster is one of the four species of plants covered under the CVMSHCP.

Source: Technical Background Report (2015; Appendix 4.0)

Table 4.5-3 Special-Status Wildlife Species

Common Name	Description	Known Occurrences
Known to Occur in the Planning Area		
Desert Pupfish	Desert pupfish are federally and state listed as an endangered species. In California, naturally occurring desert pupfish distribution is restricted to two streams tributary to and a few irrigation drains and shoreline pools of the Salton Sea. The Living Desert Reserve in Palm Desert contains stocked ponds that house desert pupfish transplanted from natural populations (USFWS 2010a). This species is covered under the CVMSHCP.	There are no known natural populations of this species and no threats to the captive population in the Planning Area.
Desert Slender Salamander	Desert slender salamanders are federally and state listed as an endangered species. This species is associated with damp, shaded areas in palm oases, desert washes, and desert scrub.	There are only two known populations of desert slender salamander, one of which is in Hidden Palm Canyon, in the south-central Planning Area. This population is within a state ecological reserve managed by the CDFW. The second population is located in Guadalupe Canyon, which is managed by the Bureau of Land Management within the Santa Rosa Wilderness Area. Threats to the population in the Planning Area are minimal due to the species being in an ecological preserve; however, potential threats include habitat loss due to erosion, fire, non-native plants, groundwater pumping, overutilization for scientific purposes, disease, drought or climatological changes, and small population size (USFWS 2014c).
Red-Diamond Rattlesnake	The red-diamond rattlesnake is a California species of special concern. This species is associated with chaparral, woodland, and arid desert habitats. It is typically found in rocky areas with dense vegetation at elevations up to 3,000 feet (900 m). This species of snake is active from mid-spring to mid-fall. Red-diamond rattlesnakes use rodent burrows, rock cracks, and other surface objects for cover.	This species has been previously recorded in the Planning Area, and there are numerous occurrences of this species in the foothills surrounding the Coachella Valley (CDFW 2014d). Rocky areas in scrub communities in the Planning Area provide suitable habitat for this species.
Desert Tortoise	Desert tortoises are federally and state listed as a threatened species. In California, this species occurs in the Mojave and Sonoran deserts. They are found in a variety of desert habitats and terrains. At lower elevations, they are most common on flats and slopes characterized by creosote bush scrub, and at higher elevations, on rocky slopes characterized by blackbrush scrub or juniper woodlands. Desert tortoises are most often found in areas where there is sparse cover of low-growing shrubs; this allows establishment of an herbaceous layer for food. In addition, desert tortoises need friable, sandy-gravel soils for burrowing. This species has been found between sea level and 7,300 feet (0–2,225 m) amsl (USFWS 2011a). This species is covered under the CVMSHCP.	There are two records of desert tortoises in the foothills along the southern edge of Palm Desert and several more occurrences in the foothills surrounding the Coachella Valley (CDFW 2014d). Scrubby areas with friable soil in the Planning Area provide suitable habitat for this species.

Table 4.5-3, continued

Common Name	Description	Known Occurrences
Flat-Tailed Horned Lizard	The flat-tailed horned lizard is a California species of special concern. This lizard is restricted to areas with sparse vegetation and fine sand in desert flats and washes below 600 feet (180 m) amsl. It has been found in a variety of habitats including desert scrub, succulent shrub, alkali scrub, and washes. Flat-tailed horned lizards require fine sand to burrow under for cover and temperature regulation. This species is covered under the CVMSHCP.	There are numerous records of flat-tailed horned lizard on the floor of the Coachella Valley, including in the Coachella Valley Preserve immediately adjacent to the Planning Area (CDFW 2014d). Open, sandy areas on the valley floor provide suitable habitat for this species.
Coachella Valley Fringe-Toed Lizard	The Coachella Valley fringe-toed lizard is federally threatened and state listed as an endangered species. This species is endemic to the Coachella Valley and is associated with windblown desert ecosystems such as desert dunes and sand fields. This species requires fine, loose, windblown sand for burrowing. Preferable habitat is characterized as fine sand fields interspersed with hardpan and widely spaced shrubs (USFWS 2010b). This species is covered under the CVMSHCP.	There are several records of this species in the Coachella Valley portion of the Planning Area as well as numerous occurrences in the vicinity (CDFW 2014d). Open, sandy areas on the valley floor provide suitable habitat for this species. Federally designated critical habitat for this species occurs in the Coachella Valley Preserve adjacent to the Planning Area.
Burrowing Owl	The burrowing owl is a California species of special concern. Burrowing owls prefer nesting in mammal burrows in open areas of dry, open, rolling hills, grasslands, fallow fields, sparsely vegetated desert scrub with gullies, washes, and arroyos, and along the edges of human disturbed lands. This species can also be found inhabiting golf courses, airports, cemeteries, vacant lots, and road embankments with friable soils for nesting. The elevation range for this species extends from 200 feet (60 m) bmsl to 12,000 feet (3,636 m) amsl at the Dana Plateau in Yosemite (Bates 2006). Burrowing owls have been recorded along the northeastern edges of the Planning Area near Interstate 10 and in the Coachella Valley Preserve. This species is covered under the CVMSHCP.	There are numerous occurrences throughout the Coachella Valley (CDFW 2014d). Open areas with friable soils in the Planning Area provide suitable habitat for this species.
Golden Eagle	Golden eagles are a California designated fully protected species. Golden eagles are an uncommon resident and migrant throughout California. Typical habitats include rolling foothills, mountainous areas, sage-juniper flats, and deserts ranging up to 11,500 feet (3,833 m). This species requires open terrain for hunting as well as rocky ledges and large trees for cover. Nesting occurs on cliffs and in large trees. Open, rugged habitats with canyons and escarpments are most frequently used for nesting.	There is one record of this species along the western edge of the Planning Area in the Santa Rosa Mountains Wilderness Area, with several occurrences recorded throughout the San Jacinto Mountains. The communities in the hillside portions of the Planning Area, such as the juniper woodland and Sonoran scrub, provide suitable nesting habitat for this species, while the entire Planning Area provides foraging habitat.

Table 4.5-3, continued

Common Name	Description	Known Occurrences
Loggerhead Shrike	The loggerhead shrike is a California species of special concern. This species is both a yearlong resident and a winter visitor in California. Loggerhead shrikes frequent open habitats in lowlands and foothills throughout California. The highest densities of this species occur in open-canopied valley foothill hardwood, valley foothill hardwood-conifer, valley foothill riparian, pinyon-juniper, juniper, desert riparian, and Joshua tree habitats. Suitable habitat is open with sparse trees or shrubs or other suitable perches and low or sparse herbaceous cover. Nests are built in shrubs or trees with dense foliage.	There is one record of this species along the border of the Planning Area and the Coachella Valley Preserve (CDFW 2014d). Most vegetated natural communities in the Planning Area provide suitable habitat for this species.
Pallid San Diego Pocket Mouse	The pallid San Diego pocket mouse is a California species of special concern. Habitats typically associated with this species include coastal scrub, chamise-redshank chaparral, mixed chaparral, sagebrush, desert wash, desert scrub, desert succulent shrub, pinyon-juniper, and annual grassland. The elevation range for this species is from sea level up to 4,500 feet (1,350 m) amsl in the Santa Rosa Mountains and Riverside County, and 6,000 feet (1,800 m) amsl at Cactus Flat on the north slope of the San Bernardino Mountains.	There are several records of this species in the Planning Area, the majority of which are in the foothills and mountains (CDFW 2014d). Most vegetated natural communities in the Planning Area provide suitable habitat for this species.
Western Yellow Bat	The western yellow bat is a California species of special concern and uncommon year-round resident in Southern California from Los Angeles and San Bernardino counties south to the Mexican border. This species is typically associated with valley foothill riparian, desert riparian, desert wash, and palm oasis habitats up to elevations of 2,000 feet (600 m). Western yellow bats prefer palm oases and riparian habitats for roosting and feeding. This species is covered under the CVMSHCP.	There are several records of this species on the Coachella Valley floor, one of which is in the Planning Area (CDFW 2014d). Desert riparian, wash, and oasis communities in the Planning Area provide suitable habitat for this species.

Table 4.5-3, continued

Common Name	Description	Known Occurrences
Peninsular Big-Horned Sheep	Peninsular bighorn sheep are a federally endangered species, as well as state listed as threatened and fully protected. Bighorn sheep are mostly uncommon in California and use alpine dwarf-shrub, low sage, sagebrush, bitterbrush, pinyon-juniper, palm oasis, desert riparian, desert succulent shrub, desert scrub, subalpine conifer, perennial grassland, montane chaparral, and montane riparian habitats. This species grazes all year on a wide variety of plant species but prefers green, succulent grasses and forbs in open habitats such as rocky barrens, meadows, and low sparse brushlands. Steep, rocky terrain is used as escape habitat and for bedding. In addition, steep, rugged slopes and canyons are used by this species as lambing areas. This species is covered under the CVMSHCP.	The Planning Area is located within the range for this species, and the Bighorn Sheep Connectivity Model for California Deserts identifies the southern half of the Planning Area and surrounding habitats as core habitat (Penrod et al. 2012). These data are available via the Bighorn Sheep Connectivity Modeling for the California Desert Linkage Network [ds828] layer on the CDFW BIOS 5 Viewer (2014d). In addition, several subunits of federally designated critical habitat Unit # 2 (Northern Santa Rosa Mountains unit) overlap the southern portion of the Planning Area (USFWS 2014b). Additionally, large herds of this species have been observed in the Santa Rosa Mountains within the Planning Area (CDFW 2014d). Finally, the Bighorn Institute, an organization based in Palm Desert, has a captive breeding program for Peninsular bighorn sheep within the Planning Area.
Mule Deer	Mule deer are common, yearlong residents or elevational migrants with a widespread distribution in California, except in lowland deserts and intensively farmed areas without cover. This species occurs along major river corridors in scattered desert mountain areas. Mule deer prefer a mosaic of early to intermediate successional stages of forest, woodland, and brush habitats that provide woody cover, meadow and shrubby openings, and water sources. Fawning occurs in moderately dense shrublands and forests, dense herbaceous areas, and high-elevation riparian and mountain shrub habitats that contain adequate forage and water. Fawning occurs from early April to midsummer and varies based on snowpack conditions.	The Planning Area is located within the range for this species, and the connectivity model developed in <i>A Linkage Network for the California Deserts</i> (Penrod et al. 2012) identifies large portions of the undisturbed lands in the Planning Area as habitat for mule deer. This data is available via the Mule Deer Connectivity Modeling for the California Desert Linkage Network [ds829] layer on the CDFW BIOS 5 Viewer (2014d).
Palm Springs Pocket Mouse	The Palm Springs pocket mouse is a California species of special concern. This species is endemic to the vicinity of the Coachella Valley; however, little is known about its current distribution. The pocket mouse is known from various vegetative communities, including creosote scrub, desert scrub, and grasslands. This species is associated with loosely packed or sandy soils with sparse to moderately dense cover. Due to urbanization, this species no longer occurs on much of the valley floor; however, it may persist in pockets of scrub along the valley edges (Bolster 1998). This species is covered under the CVMSHCP.	There is a known population in Deep Canyon in the Planning Area, as well as a record along the border of the Coachella Valley Preserve. The Sonoran scrub communities in the Planning Area provide suitable habitat for this species.

Table 4.5-3, continued

Common Name	Description	Known Occurrences
Palm Springs Round-Tailed Ground Squirrel	The Palm Springs round-tailed ground squirrel is a California species of special concern. This species is endemic to the Coachella Valley. The ground squirrel is known to inhabit arid, sandy, scrub, and wash habitats, including creosote- and mesquite-dominated sand dunes, creosote bush scrub, and alkali scrub. They have been found on a variety of substrates, including wind-blown sand, coarse sand, and packed silt with desert pavement. Burrows are often dug at the base of shrubs, and this species may use the burrows of other rodents (Bolster 1998). This species is covered under the CVMSHCP.	This species has been recorded in the Planning Area at the border of Thousand Palms (CDFW 2014d). Relatively undisturbed communities on the valley floor in the Planning Area provide suitable habitat for this species.
<i>May Occur in the Planning Area</i>		
Silvery Legless Lizard	Silvery legless lizards are a designated California species of special concern. This species occurs in the Coast Ranges from the vicinity of Antioch in Contra Costa County southward to the Mexican border. They also have spotty occurrences in the Central Valley, the western slopes of the Sierra Nevada, the Tehachapi Mountains, and the mountains of Southern California. This species inhabits coastal dune, valley-foothill grassland, chaparral, and coastal scrub habitats at elevations from near sea level to 6,000 feet (1,800 m). This species is often associated with sandy or loose organic soils or where there is plenty of leaf litter.	There is one record of this species within 1 mile of the Planning Area (CDFW 2014d). Sonoran scrub, desert wash, and juniper woodlands in the Planning Area may provide suitable habitat for this species. The presence of nearby occurrences and the presence of suitable habitat result in the potential for this species to occur in the Planning Area
Coast Horned Lizard	The coast horned lizard is a California species of special concern. Typical vegetative associations include valley-foothill hardwood, conifer, and riparian habitat as well as pine-cypress, juniper, desert wash, and annual grassland. The current known distribution is in the Sierra Nevada foothills from Butte County south to Kern County and throughout the Central and Southern California coast. This species is typically found below 2,000 feet (606 m) amsl in the north and 3,000 feet amsl in the south; however, the range may extend up to 4,000 feet (1,212 m) amsl in the Sierra Nevada foothills and 6,000 feet (1,818 m) in the Southern California mountain ranges	There is one record of this species within 1 mile of the Planning Area (CDFW 2014d). Sonoran scrub, desert wash, and juniper woodlands in the Planning Area may provide suitable habitat for this species. The presence of nearby occurrences and the presence of suitable habitat result in the potential for this species to occur in the Planning Area

Table 4.5-3, continued

Common Name	Description	Known Occurrences
Yellow Warbler	The yellow warbler is a California species of special concern. This species breeds throughout California, including in several Southern California mountain ranges. Yellow warblers are known to winter in Southern California valleys, including the Coachella Valley. This species breeds in riparian woodland from coastal and desert lowlands up to 8,000 feet (2,500 m) amsl in the Sierras. Yellow warblers prefer to nest in open to medium-density woodland and forests with a dense brush understory. This species can be found in various desert habitats and localities during migration. This species is covered under the CVMSHCP	There are no CNDDDB occurrences of this species in the Planning Area (CDFW 2014d); however, the CVMSHCP yellow warbler distribution model overlaps with the Planning Area. Desert dry wash woodland and fan palm oases in the Planning Area may provide suitable habitat for this species. Thus, the presence of suitable habitat and the overlapping distribution model result in the potential for this species to occur in the Planning Area
Southwestern Willow Flycatcher	The southwestern willow flycatcher is federally and state listed as an endangered species. This species nests in relatively dense riparian tree and shrub communities associated with rivers, swamps, lakes, and other wetlands. Wintering habitat includes scrubby areas, pastures, and woodlands near water (USFWS 2002). This species is covered under the CVMSHCP	There is one record of this species within 1 mile of the Planning Area and a total of two occurrences within a 5-mile radius of the Planning Area (CDFW 2014d). Desert dry wash woodland and fan palm oases in the Planning Area may provide suitable habitat for this species. The presence of nearby occurrences and the presence of suitable habitat result in the potential for this species to occur in the Planning Area
Yellow-Breasted Chat	The yellow-breasted chat is a California species of special concern. This species is an uncommon summer resident, migrant, and breeder throughout most of California up to elevations of 6,500 feet (2,050 m). In Southern California, this species breeds locally in desert riparian habitats. Yellow-breasted chats prefer to nest in dense, brushy desert riparian habitat. This species is covered under the CVMSHCP	There are no CNDDDB occurrences of this species in the Planning Area (CDFW 2014d); however, the CVMSHCP yellow-breasted chat distribution model overlaps with the Planning Area. Desert dry wash woodland and fan palm oases in the Planning Area may provide suitable habitat for this species. Thus, the presence of suitable habitat and the overlapping distribution model result in the potential for this species to occur in the Planning Area
Summer Tanager	The summer tanager is a California species of special concern. This species is an uncommon summer resident and breeder in California desert riparian habitats. Summer tanagers prefer to nest in mature desert riparian habitat dominated by willows and cottonwoods. Tall, shady trees are a critical element for successful nesting. This species can be found in various desert habitats and localities during migration. This species is covered under the CVMSHCP.	There are no CNDDDB occurrences of this species in the Planning Area (CDFW 2014d); however, the CVMSHCP summer tanager distribution model overlaps with the Planning Area. Desert dry wash woodland and fan palm oases in the Planning Area may provide suitable habitat for this species. Thus, the presence of suitable habitat and the overlapping distribution model result in the potential for this species to occur in the Planning Area

Table 4.5-3, continued

Common Name	Description	Known Occurrences
Gray Vireo	The gray vireo is a California species of special concern. This species is an uncommon summer resident and breeder in the mountains of Southern California. This species is typically associated with pinyon-juniper woodland, juniper woodland, and chamise-redshank chaparral habitats at elevations ranging from 2,000 to 6,500 feet (600–2,000 m) amsl. Gray vireos prefer to nest on shrubby slopes with sparse to moderate cover and scattered small trees. This species is covered under the CVMSHCP.	There are no CNDDDB occurrences of this species in the Planning Area (CDFW 2014d); however, the CVMSHCP gray vireo distribution model overlaps with the Planning Area. Juniper woodland in the Planning Area may provide suitable habitat for this species. Thus, the presence of suitable habitat and the overlapping distribution model result in the potential for this species to occur in the Planning Area
Least Bell's Vireo	The Least Bell's vireo is both federally and state listed as endangered. This species is a rare, local, summer resident below 2,000 feet (600 m). Least Bell's vireos are mostly known from San Benito and Monterey counties, coastal Southern California, and along the western edges of deserts. This species is typically found in dense valley foothill riparian or desert riparian habitats, or in canyon bottoms. Nests are built in willows or other low, dense vegetation. This species is usually found near water, but also inhabits thickets along dry, intermittent streams. Common plant associates include willow, cottonwood, mule fat (<i>Baccharis salicifolia</i>), wild blackberry (<i>Rubus</i> spp.), and mesquite. This species is covered under the CVMSHCP	There are no CNDDDB occurrences of this species in the Planning Area (CDFW 2014d); however, the CVMSHCP least Bell's vireo distribution model overlaps with the Planning Area. Juniper woodland in the Planning Area may provide suitable habitat for this species. Thus, the presence of suitable habitat and the overlapping distribution model result in the potential for this species to occur in the Planning Area
Vermilion Flycatcher	The vermilion flycatcher is a California species of special concern. This species is a rare yearlong resident in desert riparian habitats throughout central Southern California. This species is typically associated with riparian thickets adjacent to open, mesic habitats such as irrigated fields, ditches, sloughs, or ponds. This species nests and roosts in willows, cottonwoods, mesquite, or other trees and large shrubs	There is one record of this species within 1 mile of the Planning Area (CDFW 2014d). Desert dry wash woodland and fan palm oases in the Planning Area may provide suitable habitat for this species. The presence of nearby occurrences and the presence of suitable habitat result in the potential for this species to occur in the Planning Area
Crissal Thrasher	The crissal thrasher is a California species of special concern. This species is a resident and breeder in the southeastern deserts of California. This species is typically associated with dense thickets of shrubs or low trees in desert wash and desert riparian habitats. In the eastern Mojave, it also occurs in dense sagebrush along washes within pinyon-juniper habitats at elevations up to 5,900 feet (1,800 m) amsl. Breeding usually occurs along streams and washes in thickets of mesquite, ironwood, catclaw acacia, and willow. This species is covered under the CVMSHCP.	There is one record of this species within 1 mile of the Planning Area and a total of two occurrences within a 5-mile radius of the Planning Area (CDFW 2014d). Desert dry wash woodland and fan palm oases in the Planning Area may provide suitable habitat for this species. The presence of nearby occurrences and the presence of suitable habitat result in the potential for this species to occur in the Planning Area

Table 4.5-3, continued

Common Name	Description	Known Occurrences
Le Conte's Thrasher	The Le Conte's thrasher is a California species of special concern. This species is a nonmigratory bird endemic to California, Nevada, Arizona, Utah, and Mexico. They occur primarily in open desert wash, desert scrub, alkali desert scrub, Joshua tree, and desert succulent shrub habitats. Le Conte's thrashers prefer to nest in thorny shrubs and small desert trees such as pricklypear, saltbush (<i>Atriplex</i> spp.), and yuccas (including small Joshua trees) and mesquites (<i>Prosopis</i> spp.). The elevation range for this species extends from 267 feet (81 m) bmsl in Inyo County to 4,950 feet (1,500 m) amsl or higher in the Mojave Desert (Weigand and Fitton 2008). This species is covered under the CVMSHCP	There are two records of this species within 1 mile of the Planning Area and a total of five occurrences within a 5-mile radius of the Planning Area (CDFW 2014d). Desert dry wash woodland and scrub communities in the Planning Area may provide suitable habitat for this species. The presence of nearby occurrences and the presence of suitable habitat result in the potential for this species to occur in the Planning Area
San Diego Desert Woodrat	The San Diego desert woodrat is a California species of special concern. This species is common in most desert habitats throughout Southern California. This species is typically associated with Joshua tree, pinyon-juniper, and various chaparral habitats at elevations up to 8,500 feet (2,600 m) amsl. Woodrats prefer moderate to dense shrub canopies and rocky outcrops, cliffs, and slopes. Woodrat houses are often built against a rock crevice, at the base of creosote or cactus, or in low tree branches, and are constructed with twigs, rocks, and other plant parts	There are no records of this species within 1 mile of the Planning Area; however, there are a total of six occurrences within a 5-mile radius of the Planning Area (CDFW 2014d). Juniper woodland communities in the Planning Area may provide suitable habitat for this species. The presence of nearby occurrences and the presence of suitable habitat result in the potential for this species to occur in the Planning Area
Pocketed Free-Tailed Bat	The pocketed free-tailed bat is a California species of special concern and rare year-round resident in Southern California from Riverside, San Diego, and Imperial counties south to the Mexican border. This species is typically associated with pinyon-juniper woodlands, desert scrub, desert succulent scrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oasis habitats. Pocketed free-tailed bats prefer rocky desert areas with high cliffs or rock outcrops. They nest and roost in rock crevices, caverns, or buildings.	There are no records of this species within 1 mile of the Planning Area; however, there is one occurrence within a 5-mile radius of the Planning Area (CDFW 2014d). Juniper woodland, desert scrub, and desert riparian communities in the Planning Area may provide suitable habitat for this species. The presence of nearby occurrences and the presence of suitable habitat result in the potential for this species to occur in the Planning Area.
Big Free-Tailed Bat	The big free-tailed bat is a California species of special concern and rare year-round resident in California, New Mexico, southern Arizona, and Texas. This species is typically associated with rugged, rocky canyons at elevations up to 8,000 feet (2,500 m) amsl. This species has been documented in urban areas. Very little is known about this species, but it is thought that big free-tailed bats do not breed in California.	There are no records of this species within a 5-mile radius of the Planning Area; however, there is one record in the vicinity of Palm Springs at the western edge of the Coachella Valley (CDFW 2014d). Due to a lack of information about this species, it is difficult to determine its potential presence or absence. The presence of a nearby record and the presence of suitable habitat result in the potential for this species to occur in the Planning Area.

Table 4.5-3, continued

Common Name	Description	Known Occurrences
Los Angeles Pocket Mouse	The Los Angeles pocket mouse is a California species of special concern. This species is found in the vicinity of the San Fernando Valley. The Los Angeles pocket mouse is known from various vegetative communities, including alluvial sage scrub, coastal sage scrub, and grasslands.	The easternmost record of this species is a CNDDDB occurrence in the Santa Rosa Mountains within the Planning Area (CDFW 2014d); however, the sampled species may be the Palm Springs pocket mouse (Bolster 1998). The desert scrub communities in the Planning Area may provide suitable habitat for this species.

Source: TBR (Appendix 4.0)

Sensitive Natural Communities: One habitat (desert fan palm oasis) in the Planning Area was identified in the California Natural Diversity Database (CNDDDB) query as a locally sensitive terrestrial natural community. In the Planning Area, this community occurs in discrete patches associated with springs or other perennial water sources in the canyons of the Santa Rosa and San Jacinto mountains. Most of the palm oases are located in areas where development threats are low, either because the oases occur in isolated canyons or are surrounded by protected land. As shown in **Table 4.5-4**, there are 80 acres located in the SOI.

Table 4.5-4. Acreages of Vegetative Communities within the Planning Area

Vegetative Community	City Limits	SOI	Total
Active Shielded Desert Dunes	15	0	15
Desert Dry Wash Woodland	68	457	525
Desert Fan Palm Oasis Woodland	0	80	80
Peninsular Juniper Woodland and Scrub	0	3,062	3,062
Sonoran Creosote Bush Scrub	1,336	1,757	3,093
Sonoran Mixed Woody and Succulent Scrub	385	17,834	18,219
Stabilized Shielded Desert Sand Fields	490	70	560
Urban	14,962	4,017	18,979
TOTAL	17,256	27,277	44,533

Waters of the United States and the State: Jurisdictional waters of the United States and the State, along with isolated wetlands, provide a variety of functions for plants and wildlife. Wetlands and other water features provide habitat, foraging, cover, and migration and movement corridors for both special-status and common species. Waters in the Planning Area include the Whitewater River, which runs west to east through the center of Palm Desert and eventually flows out of the Planning Area and into the Salton Sea. All other waterways in the Planning Area are south of the Whitewater River and drain the Santa Rosa and San Jacinto mountains. Waterways in the Planning Area include Palm Valley Stormwater Channel, Ramon Creek, Cat Creek, Dead Indian Creek, Ebbens Creek, Grapevine Creek, and Carrizo Creek.

Regulatory Setting

Several federal, state, and local regulations pertain to biological resources, including special-status species and habitat, in the Palm Desert Planning Area. They provide the regulatory framework to address all aspects of biological resources that would be affected by implementation of the General Plan update. The regulatory setting for biological resources is discussed in additional detail in **Appendix 4.0**.

Federal

Endangered Species Act

The Endangered Species Act of 1973 (ESA), as amended, includes protective measures for federally listed threatened and endangered species, including their habitats, from unlawful take (16 United States Code [USC] Sections 1531–1544). The ESA defines “take” to mean “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” Title 50, Part 222, of the Code of Federal Regulations (50 CFR Section 222) further defines “harm” to include “an act which actually kills or injures fish or wildlife. Such acts may include habitat modification or degradation where it actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns including feeding, spawning, rearing, migrating, feeding, or sheltering.”

Clean Water Act

The basis of the Clean Water Act (CWA) was established in 1948; however, it was referred to as the Federal Water Pollution Control Act. The act was reorganized and expanded in 1972 (33 USC Section 1251), and at this time the Clean Water Act became the act’s commonly used name. The basis of the CWA is the regulation of pollutant discharges into waters of the United States, as well as the establishment of surface water quality standards.

Migratory Bird Treaty Act

Migratory birds are protected under the Migratory Bird Treaty Act (MBTA) of 1918 (16 USC Sections 703–711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Section 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR Section 21). The majority of birds found in the vicinity of Palm Desert would be protected under the MBTA.

Bald and Golden Eagle Protection Act

The bald eagle and golden eagle are federally protected under the Bald and Golden Eagle Protection Act (16 USC Sections 668–668c). Under the act, it is illegal to take, possess, sell, purchase, barter, offer to sell or purchase or barter, transport, export, or import at any time or in any manner a bald or golden eagle, alive or dead; or any part, nest or egg of these eagles unless authorized by the Secretary of the Interior. Violations are subject to fines and/or imprisonment for up to one year. Active nest sites are also protected from disturbance during the breeding season.

Executive Order 13112 – Invasive Species

This executive order directs all federal agencies to refrain from authorizing, funding, or carrying out actions or projects that may spread invasive species. The order further directs federal agencies to prevent the introduction of invasive species, control and monitor existing invasive species populations, restore native species to invaded ecosystems, research and develop prevention and control methods for invasive species, and promote public education on invasive species. As part of the proposed action, the US Fish and Wildlife Service (USFWS) and the US Army Corps of Engineers (USACE) would issue permits and would be responsible for ensuring that the proposed action complies with Executive Order 13112 and does not contribute to the spread of invasive species.

State

California Endangered Species Act

The California Endangered Species Act (CESA) mandates that state agencies should not approve projects that would jeopardize the continued existence of endangered or threatened species if reasonable and prudent alternatives are available. Take authorizations from the California Department of Fish and Wildlife (CDFW) are required for any unavoidable impact on state-listed species resulting from proposed projects. Under the CESA, the CDFW has the responsibility for maintaining a list of endangered and threatened species (Fish and Game Code [FGC] Section 2070). The CDFW also maintains a list of candidate species, which are species formally noticed as being under review for potential addition to the list of endangered or threatened species, and a list of species of special concern, which serve as a species watch lists.

Pursuant to the requirements of the CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any state-listed endangered or threatened species may be present and determine whether the proposed project will have a potentially significant impact on such species. In addition, the CDFW encourages informal consultation on any proposed project that may impact a candidate species.

State-listed species are fully protected under the mandates of the CESA. Take of protected species incidental to otherwise lawful management activities may be authorized under FGC Section 206.591. Authorization from the CDFW would be in the form of an incidental take permit.

California Fish and Game Code

Streambed Alteration Agreement (FGC Sections 1600–1607): State and local public agencies are subject to FGC Section 1602, which governs construction activities that will substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated as waters of the state by the CDFW. Under FGC Section 1602, the CDFW must issue a discretionary Streambed Alteration Agreement to the project proponent prior to the initiation of construction activities on lands under CDFW jurisdiction. As a general rule, this requirement applies to any work undertaken within the 100-year floodplain of a stream or river containing fish or wildlife resources.

Native Plant Protection Act: The Native Plant Protection Act (FGC Sections 1900–1913) prohibits the taking, possessing, or sale within the state of any plants with a state designation of rare, threatened, or endangered (as defined by the CDFW). An exception in the act allows landowners, under specified circumstances, to take listed plant species, provided that the owners first notify the CDFW and give that state agency at least 10 days to retrieve the plants before they are plowed under or otherwise destroyed (FGC Section 1913).

Birds of Prey: Under FGC Section 3503.5, it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.

Fully Protected Species: California statutes also afford “fully protected” status to a number of specifically identified birds, mammals, reptiles, and amphibians. These species cannot be taken, even with an incidental take permit. FGC Section 3505 makes

it unlawful to take “any aigrette or egret, osprey, bird of paradise, goura, numidi, or any part of such a bird.” FGC Section 3511 protects from take the following fully protected birds: (a) American peregrine falcon (*Falco peregrinus anatum*); (b) brown pelican (*Pelecanus occidentalis*); (c) California black rail (*Laterallus jamaicensis coturniculus*); (d) California clapper rail (*Rallus longirostris obsoletus*); (e) California condor (*Gymnogyps californianus*); (f) California least tern (*Sterna antillarum brownii*); (g) golden eagle (*Aquila chrysaetos*); (h) greater sandhill crane (*Grus canadensis tabida*); (i) light-footed clapper rail (*Rallus longirostris levipes*); (j) southern bald eagle (*Haliaeetus leucocephalus leucocephalus*); (k) trumpeter swan (*Cygnus buccinator*); (l) white-tailed kite (*Elanus leucurus*); and (m) Yuma clapper rail (*Rallus longirostris yumanensis*).

FGC Section 4700 identifies the following fully protected mammals that cannot be taken: (a) Morro Bay kangaroo rat (*Dipodomys heermanni morroensis*); (b) bighorn sheep (*Ovis canadensis*), except Nelson bighorn sheep (subspecies *Ovis canadensis nelsoni*); (c) Guadalupe fur seal (*Arctocephalus townsendi*); (d) ring-tailed cat (genus *Bassariscus*); (e) Pacific right whale (*Eubalaena sieboldi*); (f) salt-marsh harvest mouse (*Reithrodontomys raviventris*); (g) southern sea otter (*Enhydra lutris nereis*); and (h) wolverine (*Gulo gulo*).

FGC Section 5050 protects from take the following fully protected reptiles and amphibians: (a) blunt-nosed leopard lizard (*Crotaphytus wislizenii silus*); (b) San Francisco garter snake (*Thamnophis sirtalis tetrataenia*); (c) Santa Cruz long-toed salamander (*Ambystoma macrodactylum croceum*); (d) limestone salamander (*Hydromantes brunus*); and (e) black toad (*Bufo boreas exsul*).

FGC Section 5515 identifies certain fully protected fish that cannot lawfully be taken, even with an incidental take permit. The following species are protected in this fashion: (a) Colorado River squawfish (*Ptychocheilus lucius*); (b) thicketail chub (*Gila crassicauda*); (c) Mohave chub (*Gila mohavensis*); (d) Lost River sucker (*Catostomus luxatus*); (e) Modoc sucker (*Catostomus microps*); (f) shortnose sucker (*Chasmistes brevirostris*); (g) humpback sucker (*Xyrauchen texanus*); (h) Owens River pupfish (*Cyprinodon radiosus*); (i) unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*); and (j) rough sculpin (*Cottus asperrimus*).

California Planning and Zoning Requirements (California Government Code Section 65302)

The California Government Code establishes the authority for and scope of general plans prepared by local jurisdictions in California. This includes requirements for local jurisdictions to include specific elements and address certain issues associated with local land use decisions within a general plan. Biological resources are typically addressed within the biological resources or conservation and open space elements of a general plan to ensure adequate protection or enhancement of biological resources in the context of development patterns and intensities and the natural qualities of a community.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act of 1966 (California Water Code Section 13000 et seq.; CCR Title 23, Chapter 3, Subchapter 15) is the primary state regulation that addresses water quality. The requirements of the act are implemented by the State Water Resources Control Board at the state level and by the Regional Water Quality Control Board (RWQCB) at the local level. The RWQCB carries out planning,

permitting, and enforcement activities related to water quality in California. The act provides for waste discharge requirements and a permitting system for discharges to land or water. Certification is required by the RWQCB for activities that can affect water quality.

Clean Water Act, Section 401 Water Quality Certification

CWA Section 401 (33 USC Section 1341) requires that any applicant for a federal license or permit which may result in a pollutant discharge to waters of the United States obtain a certification that the discharge will comply with US Environmental Protection Agency (EPA) water quality standards. The state or tribal agency responsible for issuance of the Section 401 certification may also require compliance with additional effluent limitations and water quality standards set forth in state/tribal laws. In California, the RWQCB is the primary regulatory authority for Clean Water Act Section 401 requirements.

Regional and Local

Coachella Valley Multispecies Habitat Conservation Plan

The CVMSHCP protects 240,000 acres of open space and covers 27 special-status species of plants and animals. It also strives to safeguard significant habitat linkages and wildlife corridors. The City of Palm Desert is a signatory to the CVMSHCP. Other participants include Riverside County and the Cities of Cathedral City, Coachella, Desert Hot Springs, Indian Wells, Indio, La Quinta, Palm Springs, and Rancho Mirage, as well as the Coachella Valley Water District, Imperial Irrigation District, Coachella Valley Association of Governments, and California Department of Transportation (Caltrans). The plan received its state and federal permits in the fall of 2008. Several species that are known to occur or have the potential to occur in the Planning Area are covered under the CVMSHCP. The CVMHCP provides take coverage for certain species and also requires new development to pay a Local Development Mitigation Fee (LDMF). The LDMF is the primary source of funding for the CVMHCP.

City of Palm Desert Municipal Code, Title 24 Environment and Conservation

The purpose of Title 24 of the Municipal Code is to ensure the future health, safety, and general welfare of citizens of the city and the physical environment of the community. Chapter 24.20, Stormwater Management and Discharge Control, strives to protect and enhance the quality of watercourses, water bodies, groundwater, and wetlands in the city in a manner consistent with the Clean Water Act. Chapter 24.12, Fugitive Dust (PM₁₀) Control, addresses control of fugitive dust and other particulate matter.

Nongovernmental Agency

California Native Plant Society

The CNPS is a nongovernmental agency that classifies native plant species according to current population distribution and threat level in regard to extinction. The following description of the CNPS classification system is relevant to identifying potential impacts to biological resources. The CNPS maintains a list of plant species native to California that exist in low numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Plants of California. Potential impacts to populations of CNPS-ranked plants receive consideration under CEQA review. The following identifies the definitions of the CNPS ranking:

- Rare Plant Rank 1A: plants believed to be extinct
- Rare Plant Rank 1B: plants that are rare, threatened, or endangered in California and elsewhere
- Rare Plant Rank 2: plants that are rare, threatened, or endangered in California, but are more numerous elsewhere

All of the plant species in Rare Plant Ranks 1 and 2 meet the requirements of Section 1901, Chapter 10 (Native Plant Protection Act), or Sections 2062 and 2067 (CESA) of the California Fish and Game Code and are eligible for state listing. Plants in Rare Plant Rank 1 or 2 are considered to meet the criteria of CEQA Section 15380, and effects on these species are considered significant. Classifications for plants ranked under Rare Plant Rank 3: plants about which more information is needed (a review list) and/or Rare Plant Rank 4: plants of limited distribution (a watch list), as defined by the CNPS, are not currently protected under state or federal law. Therefore, no detailed description or impact analysis was performed for qualifying species under these classifications.

4.5.4 Impacts and Mitigation Measures

Analysis Approach

The analysis of impacts is based on the likely consequences of adoption and implementation of General Plan update compared to existing conditions. The following analysis of impacts on biological resources is qualitative and based on available habitat and species occurrence information for the Planning Area along with a review of regional information. The analysis assumes that all future and existing development in the Planning Area complies with all applicable laws, regulations, design standards, and plans. An analysis of cumulative impacts uses qualitative information for the Planning Area and the region.

Draft General Plan Update Policies and Implementation Actions

General Plan policies and implementation actions that reduce potential biological resources impacts include the following:

Policies

Land Use & Community Character Element

- **Policy 1.2: Open space preservation.** Balance the development of the city with the provision of open space, and especially the hillsides surrounding the City, so as to create both high quality urban areas and high quality open space
- **Policy 2.4: Tree planting.** Encourage the planting of trees that appropriately shade the sidewalk and improve the pedestrian experience throughout the city.

Environmental Resources Element

- **Policy 1.5: Waterways as amenities.** When considering development applications and infrastructure improvements, treat waterways as amenities, not hazards, and encourage designs that embrace the waterways.
- **Policy 3.1: Open space network.** Require new development to comply with requirements of the CVMSHCP.

- **Policy 4.1: Buffers from new development.** Require new developments adjacent to identified plant and wildlife habitat areas to maintain a protective buffer.
- **Policy 4.2: Wildlife corridors.** Support the creation of local and regional conservation and preservation easements that protect habitat areas, serve as wildlife corridors and help protect sensitive biological resources.
- **Policy 4.3: Landscape design.** Continue to encourage new developments to incorporate native vegetation materials into landscape plans and prohibit the use of species known to be invasive according to the California Invasive Plant Inventory.

Thresholds of Significance

For the purposes of this EIR, impacts on biological resources are considered significant if adoption and implementation of the General Plan update would:

Threshold	Determination
1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife or the US Fish and Wildlife Service	Less Than Significant
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service	Less Than Significant
3. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means	Less Than Significant
4. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites	Less Than Significant
5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance	No Impact
6. Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan	Less Than Significant
7. Cumulative effects	Less Than Cumulatively Considerable

Impacts and Mitigation Measures

IMPACT 4.5-1 **Impacts to Special-Status Species.** *Adoption and implementation of the General Plan update would result in the loss or degradation of existing populations or suitable habitat of special-status plant and wildlife species. However, adherence with the CVMSHCP and adoption and implementation of General Plan policies and implementation actions would result in a **less than significant** impact.*

Land use and development consistent with the General Plan update could result in adverse impacts on special-status species or on essential habitat for such species. Any future development in areas that are currently undeveloped could result in direct loss of sensitive plants or wildlife. Where there are direct impacts to special-status species, indirect impacts would occur as well. Indirect impacts may include habitat modification, increased human/wildlife interactions, habitat fragmentation, encroachment by exotic weeds, and area-wide changes in surface water flows and general hydrology due to development of previously undeveloped areas.

Tables 4.5-2 and 4.5-3 list all federally and state-listed species with the potential to occur in the Planning Area and each are covered under the CVMSHCP. Payment of the mitigation fee and compliance with all applicable requirements of the MSHCP provide full mitigation under the California Environmental Quality Act (CEQA), the National Environmental Policy Act (NEPA), the Endangered Species Act (ESA), and the California Endangered Species Act (CESA) for impacts to MSHCP covered species and habitats. The MSHCP also addresses indirect impacts through linkages and plan fees.

General Plan Environmental Resources Element Policy 3.1 requires new development in Palm Desert to comply with requirements of the CVMSHCP, which is designed to ensure that impacts to covered special-status species are less than significant. The implementation of the CVMSHCP at the project-specific level would minimize direct and indirect impacts from future projects proposed in accordance with the General Plan. Payment of the mitigation fee and compliance with all applicable requirements of the CVMSHCP are considered full mitigation under CEQA, the National Environmental Policy Act (NEPA), the ESA, and the CESA for impacts to CVMSHCP covered species and habitats.

However, several special-status species with the potential to occur in the Planning Area are not covered under the CVMSHCP such as raptors and migratory birds. Impacts to special-status species (see **Tables 4.5-2 and 4**) not covered by the CVMSHCP may require additional protections to ensure potential impacts remain less than significant. Proposed General Plan policies would help protect species not covered by the CVMSHCP by requiring new development adjacent to identified plant and wildlife habitat areas to maintain a protective buffer (Policy 4.1) and by supporting the creating of local and regional conservation and preservation easements that protect habitat areas, serve as wildlife corridors, and help protect sensitive biological resources (Policy 4.2). In addition, Policy 4.3 requires new development to incorporate native vegetation materials into landscape plans and prohibit the use of species known to be invasive according to the California Invasive Plant Inventory.

Mitigation Measures

MM 4.5-1 Pertaining to special-status species (identified in **Tables 4.5-1, 4.5-2, and 4.5-3**) with the potential to occur in the Planning Area such as raptors or migratory birds that are not part of the CVMSHCP:

1. Prior to the approval of grading plans for development associated with the General Plan update, the project applicant(s) shall retain a qualified biologist to perform a biological resources evaluation for private and public development projects in order to determine the presence/absence of non-covered special-status plant species with the potential to occur in and adjacent to (within 100 feet, where appropriate) the proposed impact area, including construction access routes. It is required that such surveys be conducted at the proper time of year when rare or endangered species are both evident and identifiable.
2. For projects in which special-status species are found, likely to occur, or where the presence of the species can be reasonably inferred, the City shall require feasible mitigation of impacts to ensure that the project does not contribute to the decline of affected special-species populations in the region to the extent that their decline would impact the viability of the regional population. Before the approval of grading plans or any ground-breaking activity for development associated with the General Plan update, the project applicant(s) shall submit a mitigation plan concurrently to the CDFW and the USFWS for review and comment. The plan shall include mitigation measures for the population(s) to be directly affected. The actual level of mitigation may vary depending on the sensitivity of the species, its prevalence in the area, and the current state of knowledge about overall population trends and threats to its survival. The final mitigation strategy for directly impacted plant species shall be determined by the CDFW and the USFWS through the mitigation plan approval process.

Timing/Implementation: Prior to the approval of grading plans

*Enforcement/Monitoring: City of Palm Desert Planning
Department*

Significance after Mitigation

Through compliance with the CVMSHCP, the proposed General Plan policies listed above, and mitigation measure **MM 4.5-1**, which addresses impacts to species that are not covered under the CVMSHCP, impacts from adoption and implementation of the Palm Desert General Plan update are considered **less than significant**.

IMPACT 4.5-2 **Impacts to Sensitive Biological Communities or Riparian Habitat.**
*Adoption and implementation of the General Plan update could result in the loss or degradation of riparian habitat or other sensitive natural communities considered sensitive habitats under CEQA. However, adoption and implementation of General Plan update policies and implementation actions would result in a **less than significant** impact.*

Sensitive habitats include those that are of special concern to resource agencies and those that are protected under the CVMSHCP, CEQA, Section 1600 of the Fish and Game Code, and Section 404 of the Clean Water Act. Project activities may result in the loss of riparian habitat and other sensitive vegetation communities. However, the

CVMSHCP considered sensitive habitats and identified conservation goals for sensitive habitats; they are therefore conserved under the CVMSHCP.

A 1602 Streambed Alteration Agreement for removal of or disturbance to riparian habitat and waters of the State (e.g., stream, lake, or river) from the CDFW may be required for development associated with any sites in the Planning Area. This agreement would include measures to minimize and restore riparian habitat. The 1602 Streambed Alteration Agreement would require the project applicant(s) associated with the development to prepare and implement a vegetation mitigation and monitoring plan. All projects must comply with state law and with the CVMSHCP that are specifically designed to reduce impacts to riparian and sensitive natural communities. As discussed, about 80 acres of desert fan palm oasis is located in the SOI (**Table 4.5-4**). Compliance with CVMSHCP would ensure impacts to this community is reduced to less than significant levels.

In addition, proposed policies in the General Plan update protect sensitive habitat. Environmental Resources Element Policy 1.5 states that when considering development applications and infrastructure improvements, waterways must be treated as amenities, not hazards, and designs that embrace the waterways are encouraged. Environmental Resources Element Policy 4.1 requires new developments adjacent to identified plant and wildlife habitat areas to maintain a protective buffer, and Policy 4.2 would support the creation of local and regional conservation and preservation easements that protect habitat areas, serve as wildlife corridors, and help protect sensitive biological resources.

For these reasons, this impact is **less than significant**.

Mitigation Measures

None required.

IMPACT 4.5-3 **Impacts to Jurisdictional Wetlands.** *Implementation of the General Plan update could result in the loss of jurisdictional waters of the United States and waters of the State. This impact would be considered less than significant.*

All water features mapped (**Appendix 4.0**) in the city are assumed to be considered jurisdictional by the US Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife and maintained by each appropriate agency. Any development that seeks authorization to place fill in jurisdictional features may be required to obtain a permit from the USACE through the Clean Water Act Section 404 permitting process prior to project implementation. If a Section 404 permit were to be required from the USACE, a Clean Water Act Section 401 permit would be also required from the RWQCB. If it is determined by a qualified wetland biologist through consultation with the RWQCB that on-site jurisdictional features qualify as waters of the State and would be affected by the proposed project, the applicant would be required to obtain an authorization from the RWQCB to fill/disturb these features prior to project implementation. Additionally, if on-site jurisdictional features qualify as waters of the State, authorization from the CDFW for impacts to these features would be required through the 1602 Streambed Alteration Agreement process. In addition, the CVMSHCP includes requirements for any development that may affect riparian or wetland areas. Furthermore, construction-related impacts to water quality would be mitigated through a National Pollutant Discharge Elimination System (NPDES) permit (see Chapter 4.9, Hydrology and Water

Quality). Environmental Resources Element Policy 3.1 requires new development in Palm Desert to comply with requirements of the CVMSHCP.

All of the agencies operate under a no net loss of wetlands policy that ensures development does not result in the loss of jurisdictional waters of the United States or of the State. Since development cannot proceed without the requisite permits, and all permits must be approved by the federal or state agencies, this impact is considered **less than significant**.

Mitigation Measures

None required.

IMPACT 4.5-4 Impacts to the Movement of Native Resident or Migratory Fish or Wildlife Species or Within an Established Migratory Corridor.

*Adoption and implementation of the General Plan update could impede wildlife movement in the Planning Area. However, adoption and implementation of General Plan policies and implementation actions would result in a **less than significant** impact.*

Wildlife movement corridors are routes frequently used by wildlife that provide shelter and sufficient food supplies to support wildlife species during migration. Movement corridors generally consist of riparian, woodland, or forested habitats that span contiguous acres of undisturbed habitat. Migratory birds may use the rivers, creeks, and other natural habitats in the Planning Area during migration and breeding. Furthermore, open space provides an opportunity for dispersal and migration of wildlife species. The primary travel corridors available in Palm Desert include the drainages and associated riparian habitats and golf courses that provide adequate cover and vegetation to be used as a migratory corridor for common and special-status wildlife species (**Table 4.5-3**). Corridors in these areas are important routes for species moving through the area and for local species that use these corridors to spread to new habitat, to mate, and to disperse genetic material. New and intensified development resulting from implementation of the General Plan update could result in disturbance, degradation, and removal of these important corridors for the movement of common and special-status wildlife species.

Several portions of the Planning Area, including the undeveloped mountainous areas and desert washes, could facilitate regional wildlife movement. Available data on movement corridors and linkages was accessed via the CDFW BIOS 5 Viewer (2014d). Data reviewed included the Essential Connectivity Areas [ds623] layer and the Missing Linkages in California [ds420] layer. The mountainous southern Planning Area is located in an Essential Connectivity Area. In addition, the Missing Linkages layer shows that the Planning Area overlaps with linkages for bighorn sheep, desert tortoise, fringe-toed lizard, various birds, and large mammals such as deer, bears, and mountain lions. In addition, the CVMSHCP Biological Corridors and Linkages GIS data was reviewed to determine whether the Planning Area is located in an identified wildlife corridor. The Planning Area is not located in a CVMSHCP identified corridor.

The General Plan update would result in further protection for existing open spaces and wildlife corridors. For instance, Environmental Resources Element Policy 4.2 would support the creation of local and regional conservation and preservation easements that protect habitat areas, serve as wildlife corridors, and help protect sensitive biological resources. The General Plan update does not propose land use changes that would convert existing open space areas, e.g., golf courses, containing

native vegetation or habitat to developed uses. Rather, the General Plan update includes land use designations that would focus new residential uses and nonresidential development around the Highway 111 corridor and around the California State University campus and the University of California campus. In addition, a review of the proposed Land Use Diagram (see Figure 3-3 in Chapter 3.0) shows large areas of land designated as Open Space, predominantly in the southern portion of the city.

Implementation of proposed General Plan update policies would ensure that habitats used by migratory species would be protected from impacts associated with construction, recreation, and industrial activities. Therefore, impacts to wildlife corridors and wildlife movement would be minimized, and the impact would be **less than significant**.

Mitigation Measures

None required.

IMPACT 4.5-5 **Conflict with Any Local Policies or Ordinances Protecting Biological Resources, such as a Tree Preservation Policy or Ordinance.**
*Implementation of the proposed project will not result in a conflict with a local policy or ordinance protecting biological resources. Therefore, there is **no impact**.*

The City of Palm Desert has not adopted any policies or ordinances protecting biological resources other than compliance with the CVMSHCP and all projects must comply with this plan. Therefore, there is **no impact**.

Mitigation Measures

None required.

IMPACT 4.5-6 **Conflict with an Adopted Plan.** *Implementation of the proposed project could conflict with provisions of the CVMSHCP. However, compliance with provisions in the CVMSHCP, including payment of mitigation fees would result in **less than significant** impacts.*

The CVMSHCP is a habitat conservation plan to which the City of Palm Desert is a permittee (i.e., signatory). The CVMSHCP protects and preserves certain habitats and species in the region. Future development applicants will be required to demonstrate their project’s consistency with the MSHCP.

A component of the MSHCP is Local Development Mitigation Fees (LDMF), which is a funding source for the CVMHCP and is required for development activities to occur. These fees are utilized to fund the minimization to certain special-status species and habitats. Future development projects will be required to pay these fees to comply with the overlying habitat conservation plan (the MSHCP). With adherence to the standard conditions and requirements, any impacts will be **less than significant** and the project will have no conflict with the MSHCP.

Cumulative Impacts and Mitigation Measures

The cumulative setting associated with the General Plan update includes approved, proposed, planned, and other reasonably foreseeable projects and development in Palm Desert and surrounding communities. Developments and planned land uses, including the General Plan update, would cumulatively contribute to impacts to biological resources.

IMPACT 4.5-7 **Cumulative Impacts to Biological Resources.** *Implementation of the General Plan update, in combination with existing, approved, proposed, and reasonably foreseeable development in the region, will result in the conversion of habitat and impact biological resources. This impact is **less than cumulatively considerable**.*

The General Plan update does not propose land use changes that would affect open space in the city. Rather, it includes land use designations that would focus new residential uses and nonresidential development around the Highway 111 corridor and around the California State University campus and the University of California campus. In addition, a review of the proposed Land Use Diagram (see Figure 3-3 in Chapter 3.0) shows large areas of land designated as Open Space, predominantly in the southern portion of the city. However, cumulative changes, including land use changes, could affect wildlife movement either directly or indirectly due to factors discussed in Impact 4.5-4 above. The General Plan update does not propose land use changes that would convert existing open space areas to developed uses. Furthermore, the policies and implementation actions described above would reduce the contribution to cumulative effects. Because the General Plan update would not convert existing open space areas to developed uses and would implement these policies and implementation actions, the General Plan's contribution to cumulative effects would not be considerable.

In addition, as noted in the analysis, the project will be subject to the provisions of the CVMSHCP. The CVMSHCP has been analyzed under CEQA. Project compliance with these provisions fully mitigates for impacts to CVMSHCP covered species associated with the proposed project. CEQA Guidelines Section 15130(a)(3) states that a project's contribution to a cumulative impact is not cumulatively considerable if the project is required to implement or fund its fair share of mitigation measures designed to alleviate the cumulative impact. Therefore, compliance with the MSHCP and other federal and state regulations discussed in this section will reduce impacts associated with development to **less than cumulatively considerable**.

Mitigation Measures

None required.

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4.6. Cultural Resources

Introduction

This resource chapter evaluates the potential environmental effects related to cultural resources associated with implementation of the General Plan update. The analysis includes an overview of cultural resources in Palm Desert, a discussion of federal, state, and local regulations pertaining to the management of cultural resources, and a discussion of the type of cultural resources likely to be encountered in the planning area. Updated General Plan Land Use & Community Character Element and Environmental Resources Element policies, as well as implementation actions presented in the Land Use & Community Character Element, promote the identification, protection, and maintenance of historic and cultural resources.

NOP Comments: In response to the Notice of Preparation (NOP) released for this project (see **Appendix 1.0**), the City received three letters (see **Appendix 1.0**). A comment letter from the Soboba Band of Luiseño Indians concluded that although it is outside the existing reservation, the Planning Area does fall within the boundaries of the Tribal Traditional Use Areas. A letter from the Pala Tribal Historic Preservation Office concluded that the Planning Area is not within the boundaries of the recognized Pala Indian Reservation. The project is also beyond the boundaries of the territory that the tribe considers its Traditional Use Area. The third comment letter was received from the Native American Heritage Commission (NAHC), which included a consultation list of tribes with traditional lands or cultural places located within the Planning Area boundaries.

Reference Information: Information for this resource chapter is based on numerous references, including the Palm Desert General Plan Update Technical Background Report (TBR) and other publicly available documents. The TBR is attached to this document as **Appendix 4.0**. This EIR, including the TBR, is also available electronically on the City's website (<http://www.cityofpalmdesert.org/our-city/general-plan-update>).

Environmental Setting

Section 6.0 of **Appendix 4.0** provides a prehistoric and historic overview of Palm Desert and surrounding areas, describes methods of identifying known cultural resources in the Planning Area, and discusses themes and property types in the city. It also includes information on regulations pertaining to cultural resources located in the Planning Area. Key findings from the environmental setting are summarized below.

1. There are listed or eligible properties in Palm Desert that are listed on the California Points of Historical Interest, the California Register of Historical Resources, and the National Register of Historic Places.
2. A total of seven historic landmarks are located within the city limits (see **Table 4.6-1**).

Table 4.6-1: Palm Desert Register Listings

Name	Description	Location
Historical Society of Palm Desert/Palm Desert Fire Station	Ranch Vernacular–style building	72-861 El Paseo
Shadow Mountain Golf Club	First golf course in Palm Desert	73-800 Ironwood
Portola Community Center	First community library in Palm Desert	45-480 Portola Avenue
Sandpiper Condominiums, Circles 11 & 12	Multi-family residential building	El Paseo
Palm Desert Community Church	City of Palm Desert’s first community church	45-630 Portola Avenue
Schindler House for Marion Toole	Single-family residence	44-870 Cabrillo Avenue
Randall Henderson House	Single-family residence; home of Randall Henderson, one of the city’s founders	74-135 Larrea Street

Regulatory Setting

Federal, state, and local laws, regulations, and policies pertain to cultural resources in the Planning Area. They provide the regulatory framework for addressing all aspects of cultural resources that would be affected by adoption and implementation of the General Plan update. The regulatory setting for cultural resources is discussed in detail in **Appendix 4.0**. Key regulations are summarized below.

Federal

Section 106 of the National Historic Preservation Act (NHPA)

Section 106 requires federal agencies, or those they fund or permit, to consider the effects of their actions on properties that may be eligible for listing in the National Register of Historic Places (NRHP).

State

California Environmental Quality Act (CEQA)

CEQA specifically defines a historical resource and explicitly defines when an action would have a substantial adverse change in the significance of a historical resource. CEQA includes provisions that specifically address the protection of cultural resources by requiring consideration of impacts of a project on unique archaeological resources and historical resources.

California Health and Safety Code Section 7050

This act states that if human remains are uncovered during ground-disturbing activities, the contractor or the project proponent must immediately halt potentially damaging excavation in the area of the burial and notify the county coroner to determine the nature of the remains.

Senate Bill 18

Senate Bill 18 requires that cities and counties contact, and consult with, California Native American tribes before adopting or amending general plans or specific plans, or when designating land as open space.

Assembly Bill 52

Assembly Bill (AB) 52 specifies that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource, as defined, is a project that may have a significant effect on the environment. AB 52 requires a lead agency to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project, if the tribe requested to the lead agency, in writing, to be informed by the lead agency of proposed projects in that geographic area and the tribe requests consultation, prior to determining whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project. AB 52 specifies examples of mitigation measures that may be considered to avoid or minimize impacts on tribal cultural resources. The bill makes the above provisions applicable to projects that have a notice of preparation or a notice of negative declaration filed or mitigated negative declaration on or after July 1, 2015.

The City sent formal invitations to consult under AB 52 to three tribes who requested notice under AB 52. Each of these three tribes also received invitations to consult under SB 18. As of the release of the Draft EIR, one tribe responded to the City's invitation, while two tribes have not as of yet responded.

California Register of Historical Resources (CRHR)

The CRHR includes resources that are listed in or are formally determined eligible for listing on the NRHP, as well as some California State Landmarks and Points of Historical Interest. The eligibility criteria for listing in the CRHR are similar to those for NRHP listing but focus on the importance of the resources to California history and heritage.

California State Historical Landmarks

California Historical Landmarks are buildings, structures, sites, or places that have been determined to have statewide historical significance and meet specific criteria. The resource must also be approved for designation by the county or local jurisdiction, be recommended by the State Historical Resources Commission, and be officially designated by California State Parks. California Historical Landmarks are automatically listed in the CRHR.

California Points of Historical Interest

California Points of Historical Interest are sites, buildings, features, or events that are of local (city or county) significance and have anthropological, cultural, military, political, architectural, economic, scientific, technical, religious, experimental, or other value.

California Historic Building Code

Alternative state building regulations may be used for the rehabilitation, preservation, restoration, or relocation of nominated resources. The purpose of the Historic Building Code is to provide regulations for the preservation, restoration, rehabilitation, relocation or reconstruction of buildings or properties designated as qualified historical buildings or properties. The code is intended to provide solutions for the

preservation of qualified historical buildings or properties, to promote sustainability, to provide access for persons with disabilities, to provide a cost-effective approach to preservation, and to provide for the reasonable safety of the occupants or users.

Local

Cultural Resources Prevention Committee (CRPC)

The committee was established by City of Palm Desert Ordinance No. 1168 and provides for the identification and protection of cultural resources in Palm Desert. The CRPC meets monthly to discuss matters relating to the identification, protection, restoration, and retention of cultural resources in the city. The CRPC aims to preserve resources that reflect the city's cultural, social, economic, political, architectural, and archaeological history. Its duties include advising the City Council on matters related to cultural resources, overseeing the Palm Desert Register, and assisting Palm Desert residents with restoring historic properties. The CRPC also works with the Historical Society of Palm Desert to sponsor events and educate the public on the city's heritage.

Palm Desert Municipal Code

Title 29 of the Palm Desert Municipal Code establishes procedures for the consideration of historic and cultural resources. The code also establishes a procedure for the establishment of historic districts, design review for historic properties and a process to evaluate the treatment of historic properties.

Impacts and Mitigation Measures

Analysis Approach

The analysis of impacts is based on the likely consequences of adoption and implementation of the General Plan update, compared to existing conditions. The following analyses of impacts on cultural resources is qualitative and based on available cultural resources information for the Planning Area. The analysis assumes that all future and existing development within the Planning Area complies with applicable laws, regulations, design standards, and plans. An analysis of cumulative impacts uses qualitative information for the Planning Area.

Draft General Plan Update Policies and Implementation Actions

The General Plan update policies and implementation actions that reduce potential cultural resources impacts include:

Policies

Land Use & Community Character Element

- **Policy 7.2: Higher education.** Increase coordinated marketing of arts and cultural events at Palm Desert's higher education institutions.
- **Policy 7.5: Arts and culture district.** Consider the establishment of an arts and culture district.
- **Policy 7.6: Arts and culture funding.** Consider innovative funding mechanisms to support funding for arts and culture.
- **Policy 8.6: Joint use.** Promote joint use of public and private facilities for community use, tourism, conference, convention and cultural uses.

Environmental Resources Element

- **Policy 9.1: Disturbance of human remains.** In areas where there is a high chance that human remains may be present, the City will require proposed projects to conduct a survey to establish occurrence of human remains, if any. If human remains are discovered on proposed project sites, the project must implement mitigation measures to prevent impacts to human remains in order to receive permit approval.
- **Policy 9.2: Discovery of human remains.** Require that any human remains discovered during implementation of public and private projects within the City be treated with respect and dignity and fully comply with the California Native American Graves Protection and Repatriation Act and other appropriate laws.
- **Policy 9.3: Tribal coordination.** Require notification of California Native American tribes and organizations of proposed projects that have the potential to adversely impact cultural resources.
- **Policy 9.4: Protected sites.** Require sites with significant cultural resources to be protected.
- **Policy 9.5: Preservation of historic resources.** Encourage the preservation of historic resources, when practical. When it is not practical to preserve a historic resource in its entirety, the City will require the architectural details and design elements of historic structures to be preserved during renovations and remodels as much as feasible.
- **Policy 9.6: Paleontological resources.** Require any paleontological artifacts found within the City or its Sphere of Influence to be reported to the City and temporarily loaned to local museums like the Western Science Center for Archaeology and Paleontology, in Hemet, CA.
- **Policy 9.7: Mitigation and preservation of cultural resources.** Require development to avoid archaeological and paleontological resources, whenever possible. If complete avoidance is not possible, require development to minimize and fully mitigate the impacts to the resources.

Implementation Actions

Land Use & Community Character Element

- **Action 2.13.** Commission a community economic impact study to assess the current cultural landscape of Palm Desert and its economic benefit to the community.
- **Action 2.14.** Study the benefit of an arts and culture district in Palm Desert.
- **Action 2.15.** Investigate funding methods for the arts and culture sector.

Thresholds of Significance

For the purposes of this EIR, impacts on cultural resources are considered significant if adoption and implementation of the General Plan would:

	Threshold	Determination
1.	Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5	Less Than Significant
2.	Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5	Potentially Significant
3.	Disturb any human remains, including those interred outside of formal cemeteries	Less Than Significant
4.	Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074	Less Than Significant
5.	Cumulative effects	Less Than Cumulatively Considerable

Impacts and Mitigation Measures

IMPACT 4.6-1 Substantial Change in the Significance of a Historical Resource.
*Adoption and implementation of the General Plan update could result in new development and redevelopment of property throughout the Planning Area, which could cause a substantial change in the significance of a historical resource as defined in State CEQA Guidelines Section 15064.5. Implementation of the General Plan update policies and actions would protect historical resources. This impact is considered **less than significant**.*

Anticipated development would not lead to the demolition of historic buildings and structures and/or damage to subsurface historic-period resources because all projects that affect historic resources must comply with Title 29 of the City of Palm Desert Municipal Code. The municipal code requires public consideration of historic building modification and may require changes to projects to preserve or document resources.

Several adopted federal, state, and local regulations guide the process of identifying and preserving historic resources in Palm Desert. State regulations incentivize the preservation of historic and cultural resources, while local policies provide guidance for the identification and protection of resources. Environmental Resources Element Policy 9.5 encourages the preservation of historic resources, when practical. When it is not practical to preserve a historic resource in its entirety, the City will require the architectural details and design elements of historic structures to be preserved during renovations and remodels as much as feasible.

Implementation of the General Plan update policies to protect historic resources, along with adherence to existing federal, state, and City regulations, would preserve locally designated historical resources. Therefore, this impact would be **less than significant**.

Mitigation Measures

None required.

IMPACT 4.6-2 Substantial Change in the Significance of a Unique Archaeological Resource. *Adoption and implementation of the General Plan update could result in new development and redevelopment of previously undisturbed land throughout the Planning Area, which could cause a substantial change in the significance of a unique archaeological resource as defined in CEQA Guidelines Section 15064.5. This impact is considered **potentially significant**.*

Anticipated development in Palm Desert would occur through infill development on vacant property and with redevelopment or revitalization of underutilized properties, which could result in damage to prehistoric- and historic-period archaeological resources located on or near previously undisturbed ground surfaces. In addition, infrastructure and other improvements requiring ground disturbance could result in damage to or destruction of archaeological resources buried below the ground surface. Archaeological sites have the potential to contain intact deposits of artifacts, associated features, and dietary remains that could contribute to the regional prehistoric or historic record. Historical resources, as defined in CEQA Guidelines Section 15064.5(a)(3)(D), include resources which have yielded, or may be likely to yield, information important in history or prehistory. Archaeological sites may also be a unique archaeological resource (as defined in Public Resources Code Section 21083.2(g)(1)–(3)) or may be of cultural or religious importance to Native American groups, particularly if the resource includes human and/or animal burials.

Environmental Resources Element Policies 9.1, 9.2, 9.2, 9.4, and 9.7 direct the City to recognize and maintain archaeological resources. Policy 9.1 states that in areas where there is a high chance that human remains may be present, the City will require proposed projects to conduct a survey to establish the occurrence of human remains, if any. If human remains are discovered on proposed project sites, the project proponent must implement mitigation measures to prevent impacts to human remains in order to receive permit approval. Policy 9.2 requires that any human remains discovered during implementation of public and private projects be treated with respect and dignity and fully comply with the California Native American Graves Protection and Repatriation Act and other appropriate laws. Policy 9.3 requires notification of California Native American tribes and organizations of proposed projects that have the potential to adversely impact cultural resources. Policy 9.4 requires sites with significant cultural resources to be protected. Policy 9.7 requires development to avoid archaeological and paleontological resources, whenever possible. If complete avoidance is not possible, development would be required to minimize and fully mitigate the impacts to the resources.

The direction to recognize archaeological resources would typically be accomplished through, as appropriate, research, surveys, and testing prior to construction, as well as monitoring during ground-disturbing activities. The proper handling of discovered resources and the enforcement of applicable state and federal laws and regulations would qualify as the direct maintenance of archaeological resources. Much of the Planning Area is built out, and most new development pursuant to the General Plan update will therefore take place above ground on previously disturbed land, thereby minimizing the potential to disturb archaeological resources. However, ground-disturbing activities on previously undisturbed land could affect the integrity of an as-yet-unknown archaeological site, thereby causing a substantial change in the significance of the resource. Although efforts will be made to identify and mitigate impacts to potential archaeological resources prior to ground disturbance, there is no

way to know if significant archaeological resources occur below undisturbed ground surfaces. Therefore, absent mitigation, this impact would be **potentially significant**.

Mitigation Measures

For future projects that require excavation activity (e.g., clearing/grubbing, grading, trenching, or boring) into native soil and that have the potential to exhibit native ground surface within or in the immediate vicinity of the excavation footprint, project applicants will be required to conduct archaeological resources assessments in order to identify and mitigation potential impacts to archaeological resources. A Phase 1 Assessment typically consists of identifying known archaeological resources through records search and consultation with Native American tribes, a pedestrian survey of the project site, a review of the land use history, and coordination with knowledgeable organizations or individuals. If warranted, additional analyses such as archaeological test excavations and/or remote sensing methods can be implemented to identify resources. Coordination with the Native American tribes is assured through compliance with AB 52 and SB 18 and through implementation of Title 29 of the City of Palm Desert Municipal Code. In conjunction with these assessments, future project applicants will be required to implement mitigation measures **MM 4.6-2a** through **MM 4.6-2d**.

MM 4.6-2a For future projects that require excavation activity (e.g., clearing/grubbing, grading, trenching, or boring) into native soil and that have the potential to exhibit native ground surface within or in the immediate vicinity of the excavation footprint, project applicants an archaeological study (Phase I Assessment) shall be required.

Timing/Implementation: During the environmental review process

Enforcement/Monitoring: City of Palm Desert Planning Department

MM 4.6-2b If resources are identified, they shall be evaluated for their eligibility for listing in the California Register of Historical Resources, the National Register of Historic Places (if applicable), and/or a local listing and to determine whether the resource qualifies as a unique archaeological resource pursuant to CEQA (Phase II Assessment). Methodologies for evaluating a resource can include, but are not limited to, subsurface archaeological test excavations, additional background research, and coordination with Native Americans and other interested individuals in the community.

Timing/Implementation: During the environmental review process

Enforcement/Monitoring: City of Palm Desert Planning Department

MM 4.6-2c If the resources are determined eligible for listing in the California Register of Historical Resources, appropriate mitigation shall be developed and implemented to mitigate impacts to the resource. If resource avoidance measures, such as resource “capping” (covering a resource with a layer of fill soils before building on the resource) or incorporating a resource into a park plan or open space, are deemed not feasible, additional subsurface archaeological excavations (i.e., data recovery) that serve to recover significant archaeological resources before they are damaged or destroyed by the proposed

development shall be implemented (Phase III Assessment). Documentation (technical reports and California Department of Parks and Recreation Site Forms) and recovered materials (artifacts and other specimens) shall be curated at a suitable repository and/or museum for future study and research.

Timing/Implementation: During the environmental review process

Enforcement/Monitoring: City of Palm Desert Planning Department

MM 4.6-2d Archaeological construction monitoring and construction personnel awareness training shall be conducted for development proposals that have a high potential to encounter previously unknown buried resources during construction. If resources are encountered during construction, appropriate treatment measures shall be developed to preserve the resource. If it is not feasible to preserve the resource, a program to remove or recover the resource from the construction site shall be implemented.

Timing/Implementation: During grading and construction

Enforcement/Monitoring: City of Palm Desert Planning Department

Significance after Mitigation

Mitigation measures **MM 4.6-2a** through **MM 4.6-2d** would require various assessments, as necessary, by a qualified archaeologist for projects subject to CEQA involving ground-disturbing activities on previously undisturbed land and would require preparation and implementation of a treatment plan if buried resources would be affected by a proposed project. Thus, with implementation of the mitigation measures above, the General Plan update would provide for the appropriate treatment and/or preservation of resources if encountered. Therefore, potentially significant impacts to archaeological resources would be reduced to a **less than significant** level.

IMPACT 4.6-3 **Disturbance of Human Remains.** *Adoption and implementation of the General Plan update could result in new development and redevelopment of previously undisturbed land throughout the Planning Area, which could disturb human remains. This impact is considered less than significant.*

Anticipated development in Palm Desert would occur through new infill development on vacant property and with redevelopment or revitalization of underutilized properties, which could disturb human remains under previously undisturbed ground surfaces. In addition, infrastructure and other improvements requiring ground disturbance could disturb human remains below the ground surface.

As described in **Appendix 4.0** and the Regulatory Setting subsection above, California Health and Safety Code Sections 7050.5 and 7052 and California Public Resources Code Section 5097 dictate procedures for the treatment of discovered human remains. If human remains are uncovered during ground-disturbing activities, all such activities within a 100-foot radius of the find must be halted immediately and the project applicants' designated representative notified. The project applicants are required to immediately notify the county coroner and a qualified professional archaeologist. The coroner is required to examine all discoveries of human remains

within 48 hours of receiving notice of a discovery on private or state lands (Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she must contact the Native American Heritage Commission by phone within 24 hours of making that determination (Health and Safety Code Section 7050[c]). The project applicants' responsibilities for acting upon notification of a discovery of Native American human remains are identified in detail in California Public Resources Code Section 5097.9. The City of Palm Desert or its appointed representative and the professional archaeologist are then required to contact the most likely descendant (MLD), as determined by the NAHC, regarding the remains. The MLD, in cooperation with the property owner and the lead agency, would then determine the ultimate disposition of the remains. Therefore, required compliance with California Health and Safety Code Sections 7050.5 and 7052 and California Public Resources Code Section 5097 would result in a **less than significant** cumulative impact to human remains.

Mitigation Measures

None required.

IMPACT 4.6-4 Substantial Change in the Significance of a Tribal Cultural Resource.
*Adoption and implementation of the General Plan update could result in new development and redevelopment of previously undisturbed land throughout the Planning Area, which could cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074. This impact is considered **potentially significant**.*

Chapter 532 Statutes of 2014 (i.e., Assembly Bill [AB] 52) requires that lead agencies evaluate a project's potential impact on "tribal cultural resources." Such resources include "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are eligible for inclusion in the California Register of Historical Resources or included in a local register of historical resources." AB 52 also gives lead agencies the discretion to determine, based on substantial evidence, whether a resource qualifies as a tribal cultural resource. As explained above under Impact 4.6-2, anticipated development in Palm Desert would occur through infill development on vacant property and with redevelopment or revitalization of underutilized properties, which could result in damage to previously unknown cultural resources. Such resources may include resources of cultural or religious importance to Native American groups. However, a number of General Plan policies, specifically, Environmental Resources Element Policies 9.1, 9.2, 9.2, 9.4, address this concern. These policies direct the City to recognize and maintain such resources, and require, in areas where there is a high chance that human remains may be present, preconstruction surveys to establish the occurrence of human remains, if any. General Plan Policy 9.2 requires that any human remains discovered during implementation of public and private projects be treated with respect and dignity and fully comply with the California Native American Graves Protection and Repatriation Act and other appropriate laws. General Plan Policy 9.3 requires notification of California Native American tribes and organizations of proposed projects that have the potential to adversely impact cultural resources. Policy 9.4 requires sites with significant cultural resources to be protected. Policy 9.7 requires development to avoid archaeological and paleontological resources, whenever possible. If complete

avoidance is not possible, development would be required to minimize and fully mitigate the impacts to the resources.

Pursuant to AB 52, Public Resources Code Section 21080.3.1 indicates that Native American consultation is required upon written request by a California Native American tribe who has previously requested that the lead agency provide it with notice of such projects. Native American tribes may have knowledge about cultural resources in the area and may have concerns about adverse effects from development on tribal cultural resources as defined in Public Resources Code Section 21074. These resources may be sacred lands, traditional cultural places and resources, and archaeological sites.

In compliance with AB 52, the City has provided formal notification to the three tribes that have previously requested notice of proposed projects under AB 52. In addition, the City sent approximately 30 tribes formal invitations to consult pursuant to SB 18. As of the release of the Draft EIR, no tribe as formally requested consultation under either statute; however, the Agua Caliente Band of Cahuilla Indians has indicated, in its response to both the SB 18 and AB 52 invitations, that it will review the Draft EIR during the public review period and provide its comments at that time.

Given that much of the General Plan Planning Area is built out, and most new development pursuant to the General Plan update will therefore take place above ground on previously disturbed land, thereby minimizing the potential to disturb tribal cultural resource resources. However, ground-disturbing activities on previously undisturbed land could affect the integrity of an as-yet-unknown resource. Therefore, absent mitigation, this impact would be **potentially significant**.

Mitigation Measures

For future projects that require excavation activity (e.g., clearing/grubbing, grading, trenching, or boring) into native soil and that have the potential to exhibit native ground surface within or in the immediate vicinity of the excavation footprint, project applicants will be required to conduct archaeological resources assessments in order to identify and mitigation potential impacts to archaeological resources. A Phase 1 Assessment typically consists of identifying known archaeological resources through records search and consultation with Native American tribes, a pedestrian survey of the project site, a review of the land use history, and coordination with knowledgeable organizations or individuals. If warranted, additional analyses such as archaeological test excavations and/or remote sensing methods can be implemented to identify resources. Coordination with the Native American tribes is assured through compliance with AB 52 and SB 18 and through implementation of Title 29 of the City of Palm Desert Municipal Code. In conjunction with these assessments, future project applicants will be required to implement mitigation measures **MM 4.6-2a** through **MM 4.6-2d**, above.

Significance after Mitigation

Mitigation measures **MM 4.6-2a** through **MM 4.6-2d** would require various assessments, as necessary, by a qualified archaeologist for projects subject to CEQA involving ground-disturbing activities on previously undisturbed land and would require preparation and implementation of a treatment plan if buried resources would be affected by a proposed project. Thus, with implementation of the mitigation measures above, the General Plan update would provide for the appropriate treatment and/or preservation of resources if encountered. Therefore, potentially

significant impacts to archaeological resources would be reduced to a **less than significant** level.

Cumulative Impacts and Mitigation Measures

The context for cumulative impacts on historical resources and archaeological resources is adoption and implementation of the General Plan update in addition to future development in surrounding cities. Cities adjacent to the Planning Area share common historic, archeological, and geologic characteristics. The geographic context for cumulative impacts to human remains is individual development sites.

IMPACT 4.6-5 Cumulative Effects on Historical Resources. *Adoption and implementation of the General Plan update in addition to anticipated future development in surrounding cities could cause a substantial change in the significance of historical resources as defined in CEQA Guidelines Section 15064.5. The loss of some historical resources may be prevented through implementation of updated General Plan policies, the City of Palm Desert’s Cultural Resources Prevention Committee, and preservation policies in other communities. However, this would not ensure that these resources can be protected and preserved. This impact is considered **cumulatively considerable**.*

Historical resources in surrounding cities include various types of buildings and/or structures, some of which share historical associations or similar attributes of architectural character. Potential future development in the Planning Area and the surrounding region could include demolition or destruction of historical resources. Although some historic resources may be listed in the NRHP, the CRHR, or local listings, listing itself does not ensure protection of the resource. Future discretionary development in the Planning Area and surrounding cities would be subject to CEQA requirements. Not all municipalities have a formal review process that applies to all properties defined by CEQA as historical resources; thus, it is reasonable to assume that some historical resources could be substantially changed or demolished. The cumulative effect of future development would be the continued loss of these resources. However, General Plan Environmental Resources Element Policy 9.5 encourages the preservation of historic resources, when practical. When it is not practical to preserve a historic resource in its entirety, the City will require the architectural details and design elements of historic structures to be preserved during renovations and remodels as much as feasible.

Implementation of the General Plan update policies to protect historic resources, along with adherence to existing federal, state, and City regulations, would preserve locally designated historical resources. Therefore, this would be a **less than cumulatively considerable**.

Mitigation Measures

None required.

IMPACT 4.6-6 **Cumulative Effects on Archaeological Resources.** *Adoption and implementation of the General Plan update in addition to anticipated future development in surrounding cities could cause a substantial change in the significance of an archaeological resource as defined in CEQA Guidelines Section 15064.5. The loss of some archaeological resources may be prevented through implementation of General Plan policies and similar policies in other communities. However, this would not ensure that these resources can be protected and preserved. This impact is considered **cumulatively considerable**.*

Future development in the Planning Area and in the surrounding region could include ground-disturbing activities on previously undisturbed land that could potentially affect archaeological resources. The cumulative effect of this future development is the continued loss of prehistoric cultural resources. Potential future development increases the likelihood that archaeological resources could be discovered. It is therefore possible that cumulative development could result in the demolition or destruction of unique archaeological resources, which could contribute to the erosion of the prehistoric record of the planning area and region. Absent mitigation, this would be a **cumulatively considerable** impact.

Mitigation Measures

Implement mitigation measures **MM 4.6-2a** through **MM 4.6-2d**.

Significance after Mitigation

Though archaeological resources can sometimes be protected when discovered during excavation, there is no way to ensure that all such resources can be protected and preserved. Implementation of mitigation measures **MM 4.6-2a** through **MM 4.6-2d** would require assessment by a qualified archaeologist for discretionary projects in Palm Desert involving ground-disturbing activities on previously undisturbed land and would require preparation and implementation of a treatment plan if buried resources would be affected by a proposed project in the city. Impacts to as-yet-unknown archaeological resources discovered in the city would be mitigated. Therefore, with implementation of mitigation measures **MM 4.6-2a** through **MM 4.6-2d**, the General Plan update's contribution would not be considerable, and the impact would be **less than cumulatively considerable**.

IMPACT 4.6-7 **Cumulative Effects on Human Remains.** *Adoption and implementation of the General Plan update in addition to anticipated regional growth would not result in cumulative impacts to human remains because these impacts are inherently site specific. This impact would be **less than cumulatively considerable**.*

Impacts to human remains are related to conditions and circumstances that are considered site specific. Therefore, the geographic context for the analysis of potential cumulative impacts to human remains consists of individual development sites. Although cumulative development in the region may include numerous projects with impacts to human remains, these impacts would affect each individual project, rather than resulting in an additive cumulative effect. Therefore, cumulative development would result in a **less than cumulatively considerable** impact to human remains.

Mitigation Measures

None required.

4.7. Geology and Soils

Introduction

This resource section evaluates the potential environmental effects related to geology and soils associated with implementation of the General Plan update. The analysis includes a review of regional geology, seismicity and faulting, and soils. Issues regarding water quality impacts of soil erosion are discussed in Chapter 4.9, Hydrology and Water Quality. General Plan Safety Element policies and implementation actions guide future development and infrastructure practices to protect residents and structures against seismic-related hazards by requiring enforcement of safety standards and site-specific design and construction methods.

NOP Comments: No comment letters were received in response to the Notice of Preparation (NOP) addressing the geology and soils analysis.

Reference Information: Information for this resource chapter is based on numerous references, including the Palm Desert Technical Background Report (TBR) and other publicly available documents. The TBR prepared for the project is attached to this document as **Appendix 4.0**. The EIR, including the TBR, is also available electronically on the City's website (<http://www.cityofpalmdesert.org/our-city/general-plan-update>).

Environmental Setting

Section 9.0 of **Appendix 4.0** describes the regional and local conditions related to geology and soils. Key findings of the environmental setting are presented below.

- **Wind Erosion Hazards:** Palm Desert and the Sphere of Influence (SOI) are susceptible to wind erosion and hazards associated with wind erosion. The sand dunes along Interstate 10 and the Whitewater River are the two most significant sources of wind-blown sand in the Planning Area. Figure 7.2 in the TBR (**Appendix 4.0**) shows wind erosion hazard zones in the city.

Primary Seismic Hazards

- **Seismic Ground Shaking:** Earthquake magnitude is generally measured on a logarithmic scale known as the Richter scale. This scale describes a seismic event in terms of the amount of energy released by fault movement. Because the Richter scale expresses earthquake magnitude (M) in scientific terms, it is not readily understood by the general public. The Modified Mercalli Intensity scale describes the magnitude of an earthquake in terms of actual physical effects. Six historic seismic events (M 5.9 or greater) have significantly affected the Coachella Valley region in the past 100 years. These events are listed and discussed in the TBR found in **Appendix 4.0**.
- **Active Faults and Fault Rupture:** The city and the SOI are not located within a fault zone, as defined by the Alquist-Priolo Act (CGS 2014). Based on information from the California Geological Survey, no known major active faults are located in the city or the SOI. According to the Southern California Earthquake Data Center (2014), the closest active faults to Palm Desert are the San Andreas fault, located approximately 4 miles to the north; the San Jacinto

fault, located 10 miles to the southwest; and the Elsinore fault, located 30 miles to the southwest. (See Figure 7-4 of the TBR found in **Appendix 4.0**.)

- **Expansive and Collapsible Soils:** Based on NRCS soils data (Figure 7.3 and Table 7.1 of the TBR found in **Appendix 4.0**), it does not appear that expansive clays or soils exhibiting shrink-swell characteristics underlie the city and SOI. However, since no citywide soil report exists, expansive and collapsible soils may need to be analyzed on a project-by-project basis.

Secondary Seismic Hazards

- **Landslides:** Landslides develop when water rapidly accumulates in the ground during heavy rainfall, changing the earth into a flowing river of mud or “slurry.” Landslides can strike with little or no warning at avalanche speeds. The California Department of Conservation (1998) Seismic Hazard Zone Report identifies landslide zones as “areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.” Figure 7.5 of the TBR (**Appendix 4.0**) identifies landslide-susceptible areas in the city and the SOI.
- **Liquefaction:** In 1997 and 1998, the CGS (then known as the California Division of Mines and Geology) developed guidelines for delineating, evaluating, and mitigating seismic hazards, including liquefaction, in California. Seismic Hazard Zones (SHZ) maps identify areas within and adjacent to the city and SOI that are susceptible to seismic hazards. The SHZ maps define liquefaction zones as “areas where historic occurrence of liquefaction, or local geological, geotechnical, and groundwater conditions indicate a potential for permanent ground displacement such that mitigation as defined in Public Resources Code Section 2693(c) would be required.” However, SHZ mapping delineating liquefaction-susceptible areas do not exist for Palm Desert. But according to the Riverside County Land Information System (2014), the majority of the city and all of the northern portion of the Sphere of Influence are located in an area susceptible to moderate liquefaction potential (see Figure 7.6 of the TBR [**Appendix 4.0**]). Liquefaction susceptibility in the city and the SOI is based on sediment type, depth to groundwater, and proximity to the San Andreas fault.

Regulatory Setting

State and local laws, regulations, and policies pertain to geology and soils in the Planning Area. They provide the regulatory framework for addressing aspects of geology and soils that would be affected by adoption and implementation of the General Plan update. The regulatory framework for geology and soils is discussed in detail in **Appendix 4.0** of this EIR. The following summarizes key regulations used to reduce potential environmental impacts of implementing the General Plan update.

State

Alquist-Priolo Act

The Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act) was created to prohibit the location of structures designed for human occupancy across the traces of active faults (lines of surface rupture), thereby reducing the loss of life and property

from an earthquake. The planning area does not contain Alquist-Priolo Earthquake Fault Zones (CGS 2013).

Seismic Hazards Mapping Act

The 1990 Seismic Hazards Mapping Act (Public Resources Code Sections 2690–2699.6) addresses hazards such as strong ground shaking, earthquake-induced landslides, and in some areas, zones of amplified shaking. The act established a mapping program for areas that have the potential for liquefaction, landslide, strong ground shaking, or other earthquake and geologic hazards. The California Geological Survey (CGS) is the primary state agency charged with implementing the act and provides local jurisdictions with the seismic hazard zone maps that identify areas susceptible to liquefaction, earthquake-induced landslides, and amplified shaking.

Natural Hazards Disclosure Act

The Natural Hazards Disclosure Act (effective June 1, 1998) requires “that sellers of real property and their agents provide prospective buyers with a ‘Natural Hazard Disclosure Statement’ when the property being sold lies within one or more state-mapped hazard areas, including a Seismic Hazard Zone.” The act specifies two ways in which this disclosure can be made:

1. The Local Option Real Estate Transfer Disclosure Statement as provided in Section 1102.6a of the California Civil Code.
2. The Natural Hazard Disclosure Statement as provided in Section 1103.2 of the California Civil Code.

The Local Option Real Estate Disclosure Statement can be substituted for the Natural Hazards Disclosure Statement if it contains substantially the same information and substantially the same warning as the Natural Hazards Disclosure Statement. Both the Alquist-Priolo Act and the Seismic Hazards Mapping Act require that real estate agents, or sellers of real estate acting without an agent, disclose to prospective buyers that the property is located in an Alquist-Priolo Earthquake Fault Zone or Seismic Hazard Mapping Zone.

California Building Code (CBC)

The California Building Standards Commission is responsible for coordinating, managing, adopting, and approving building codes in California. The 2016 CBC is published and parts of it will be available online starting August 1, 2016. However, the 2013 CBC and all the subsequent codes under the California Code of Regulations (CCR) Title 24 (24 CCR), which provides minimum standards for building design, is currently effective. The State requires local governments to adopt Title 24 on a triennial basis. Where no other building codes apply, Chapters 16, 16A, 18, and 18A of the 2013 CBC regulate structural design, excavation, foundations, and retaining walls.

Local

City of Palm Desert Municipal Code

Section 25.28.110, Seismic Hazard Overlay District, sets development standards and requirements for areas within the overlay zone that must be incorporated into development proposals prior to design and construction. All applications for development within the Seismic Hazard Overlay District must submit in-depth geological soils investigation technical studies. Additionally, Section 15.24.010 adopts the most recent edition of the California Building Code for the purpose of regulating

the seismic strengthening provisions for unreinforced masonry bearing wall buildings, in existing buildings in the city.

Impacts and Mitigation Measures

Analysis Approach

The analysis of impacts is based on the likely consequences of adoption and implementation of the General Plan update, compared to existing conditions. The following analysis of geology and soils impacts is qualitative and based on available information for the Planning Area along with a review of regional information. The analysis assumes that all future and existing development in the Planning Area complies with all applicable laws, regulations, and plans. An analysis of cumulative impacts uses regional information for the Planning Area.

Draft General Plan Policies and Implementation Actions

General Plan policies and implementation actions that reduce potential geology and soils impacts include the following.

Policies

Environmental Resources Element

- **Policy 9.6: Paleontological resources.** Require any paleontological artifacts found within the City or its Sphere of Influence to be reported to the City and temporarily loaned to local museums like the Western Science Center for Archaeology and Paleontology, in Hemet, CA.

Safety Element

- **Policy 2.1: Seismic Standards.** Consider exceeding minimum seismic safety standards for critical facilities that ensure building function and support continuity of critical services and emergency response after a seismic event.
- **Policy 2.2: Structural Stability.** Maintain development code standards to prohibit siting of new septic tanks, seepage pits, drainage facilities, and heavily irrigated areas away from structure foundations to reduce potential soil collapse.
- **Policy 2.3: Seismic Retrofits to the Existing Building Stock.** Create a phased program for seismic retrofits to existing public and private unreinforced buildings to meet current requirements.
- **Policy 2.3: Wind Hazards** Support integrated land management for site design and improvements that protect the natural and built environment, including both public and private structures, from hazardous wind events.

Implementation Actions

Safety Element

- **Action 08-02.** Update the City’s public GIS database with information on the extent and potential impact of seismic, geotechnical, fire, and flood hazards occurring in the city and the SOI. All future developments will be required to submit their data for incorporation into this database.
- **Action 08-05.** Evaluate critical City facilities for seismic safety.

- **Action 08-08.** Conduct an inventory of all unreinforced structures with higher potential susceptibility to seismic hazards, and develop a prioritized list of recommended phasing for retrofits, based on severity of vulnerability.
- **Action 08-09.** Partner with Riverside County, regional entities, and local financial institutions to explore and promote financing options for seismic retrofits.
- **Action 08-16.** Investigate exceeding minimum seismic safety standards for critical facilities that ensure building function.
- **Action 08-22.** Create a phased program for seismic retrofits to existing public and private buildings to meet current requirements.
- **Action 08-24.** Establish a local ordinance with a deadline for existing structures to meet current seismic safety standards

Thresholds of Significance

For the purposes of this EIR, impacts on geology and soils are considered significant if adoption and implementation of the General Plan update would:

Threshold	Determination
1. (a) 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. Refer to California Geological Survey (formerly Division of Mines and Geology) Special Publication 42	Less Than Significant
1. (b) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, involving: strong seismic ground shaking	Less Than Significant
1. (c) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, involving: seismic-related ground failure, including liquefaction.	Less Than Significant
1. (d) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, involving: landslides.	Less Than Significant
2. Result in substantial soil erosion or the loss of topsoil.	Less Than Significant
3. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.	Less Than Significant

	Threshold	Determination
4.	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.	Less Than Significant
5.	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.	Less Than Significant
6.	Directly or indirectly destroy a unique paleontological resource or site or unique geological feature.	Less Than Significant
7.	Cumulative effects	Less than Cumulatively Considerable

The City of Palm Desert Municipal Code does not include provisions for new development with on-site septic systems and relies on the Riverside County Department of Environmental Health for management of existing individual septic systems. Therefore, there would be no impact related to the use of septic tanks or alternative wastewater disposal systems. This topic will not be discussed further in this EIR.

Impacts and Mitigation Measures

IMPACT 4.7-1 **Impacts Associated with Fault Rupture and Seismic Hazards.** *Subsequent land use activities associated with adoption and implementation of the General Plan update could result in the exposure of more people, structures, and infrastructure to seismic hazards. However, implementation of the California Building Code and proposed General Plan policies would ensure that people, structures, and infrastructure are not adversely impacted by seismic hazards. This is considered a **less than significant** impact.*

Southern California, including Palm Desert, is subject to the effects of seismic activity because of the active faults that traverse the area. As described above, no Alquist-Priolo Special Earthquake Study Zone Faults traverse the city. The closest active faults are the San Andreas fault, located approximately 4 miles to the north; the San Jacinto fault located 10 miles to the southwest; and the Elsinore fault, located approximately 30 miles to the southwest (CGS 2013).

Seismic activity poses two types of potential hazards for people and structures, categorized either as primary or secondary hazards. Primary hazards include ground rupture, ground shaking, ground displacement, subsidence, and uplift from earth movement. Primary hazards can also induce secondary hazards such as ground failure (lurch cracking, lateral spreading, and slope failure), liquefaction, water waves (seiches), movement on nearby faults (sympathetic fault movement), dam failure, and fires. In general, these secondary effects of seismic shaking are a possibility throughout Southern California; severity is dependent on the distance between the site and the causative fault and the on-site geology. Since the San Andreas and San Jacinto faults are in proximity to the city, Palm Desert could potentially experience

secondary effects, such as liquefaction, associated with seismic activity along the faults.

However, development in the city would be designed in accordance with California Building Code requirements that address structural seismic safety. All new development and redevelopment would be required to comply with the CBC, which includes design criteria for seismic loading and other geologic hazards, including design criteria for geologically induced loading that govern sizing of structural members and provide calculation methods to assist in the design process. Thus, while shaking impacts would be potentially damaging, they would also tend to be reduced in their structural effects due to CBC criteria that recognize this potential. The CBC includes provisions for buildings to structurally survive an earthquake without collapsing and includes measures such as anchoring to the foundation and structural frame design.

Additionally, Palm Desert Municipal Code Section 25.28.110 sets development standards and requirements for areas in the Seismic Hazard Overlay District that must be incorporated into development proposals prior to design and construction. All applications for development in the overlay district must submit in-depth geological soils investigation technical studies.

Further, the Seismic Hazards Mapping Act requires that cities use the Seismic Hazard Zone Maps in their land use planning and building permit processes and that site-specific geotechnical investigations be conducted within the Zones of Required Investigation in order to identify and evaluate seismic hazards and formulate mitigation measures prior to permitting most developments designed for human occupancy.

These requirements, along with continued adherence to the City's Municipal Code Section 25.25.110, and implementation of the policies contained in the General Plan update would ensure this impact is reduced to **less than significant**.

Mitigation Measures

None required.

IMPACT 4.7-2 **Soil Erosion or Loss of Topsoil.** *Implementation of the General Plan update could result in construction and grading activities that could expose topsoil to increased potential for soil erosion. However, provisions in the City's Municipal Code and proposed General Plan policies would ensure there are no adverse impacts from erosion and loss of topsoil. This impact is considered to be **less than significant**.*

Implementation of the updated General Plan would result in improvements to existing roadways and the potential for additional commercial, residential, and industrial development in the city. The grading and site preparation activities associated with such development would remove topsoil, disturbing and potentially exposing the underlying soils to erosion from a variety of sources, including wind and water. In addition, construction activities may involve the use of water, which may further erode the topsoil as the water moves across the ground.

However, all demolition and construction activities that would occur would be subject to compliance with the California Building Code. Additionally, any development involving clearing, grading, or excavation that causes soil disturbance of 1 or more

acres, or any project involving less than 1 acre that is part of a larger development plan and includes clearing, grading, or excavation, is subject to provisions of the NPDES Statewide General Permit (Order No. 2009-0009-DWQ). Any development of this size in the Planning Area would be required to prepare and comply with an approved stormwater pollution prevention plan (SWPPP) that provides a schedule for the implementation and maintenance of erosion control measures and a description of the erosion control practices, including appropriate design details and a time schedule. The SWPPP would consider the full range of erosion control best management practices (BMPs), including any additional site-specific and seasonal conditions. The State General Permit also requires that those implementing SWPPPs meet prerequisite qualifications that would demonstrate the skills, knowledge, and experience necessary to implement such plans. NPDES requirements would significantly reduce the potential for substantial erosion or topsoil loss to occur in association with new development.

Further, as part of the approval process, prior to grading plan approval, project applicants for future development associated with the General Plan update will be required to comply with Chapter 24.20, Stormwater Management and Discharge Control, of the Palm Desert Municipal Code (see Chapter 4.9, Hydrology and Water Quality, for a discussion of this chapter of the Municipal Code). Water quality features intended to reduce construction-related erosion impacts will be clearly denoted on grading plans for implementation by the construction contractor.

Proposed General Plan Policy 2.3 supports integrated land management for site design and improvements that protect the natural and built environment, including both public and private structures, from hazardous wind events. This policy protects future development and existing natural resources in the city by reducing the potential for soil erosion associated with high wind hazards.

Since erosion impacts are often dependent on the type of development, intensity of development, and amount of lot coverage of a particular project site, impacts can vary. However, compliance with the CBC and the NPDES would minimize effects from erosion and ensure consistency with the Water Quality Control Plan of the Colorado River Basin Regional Water Quality Control Board (also discussed in Chapter 4.9). Additionally, compliance with Palm Desert Municipal Code Chapter 24.20 and NPDES requirements would result in **less than significant** impacts related to soil erosion.

Mitigation Measures

None required.

IMPACT 4.7-3 Unstable and Expansive Soils. *The General Plan update would not allow development on a geologic unit or soil that is unstable and therefore would not create substantial risks to life and property. As such, this is considered a **less than significant** impact.*

Subsidence refers to the sudden sinking or gradual downward settling and compaction of soil and other surface material with little or no horizontal motion. It may be caused by a variety of human and natural activities, including earthquakes. In some cases, subsidence, or the gradual sinking of land, can occur in collapsible soils. It does not appear that expansive clays or soils exhibiting shrink-swell characteristics underlie the Planning Area.

Regardless, the CBC and other related construction standards apply seismic requirements and address certain grading activities. The CBC includes common engineering practices requiring special design and construction methods that reduce or eliminate potential expansive soil-related impacts. These methods are project-specific but can include overexcavation of foundations, import of more stable material, positive drainage systems, or changes in structure design. Compliance with CBC regulations would ensure the adequate design and construction of building foundations to resist soil movement.

Additionally, Palm Desert Municipal Code Section 25.28.110 would require geological reports for projects in areas with potential for seismically induced liquefaction or settlement as part of the environmental and development review process, for any structure proposed for human occupancy, and for any structure whose damage would cause harm. Required site-specific geotechnical studies generally contain a summary of all subsurface exploration data, including a subsurface soil profile, exploration logs, laboratory or on-site test results, and groundwater information. The reports also interpret and analyze the subsurface data, recommend specific engineering design elements, discuss conditions for the solution of anticipated problems, and recommend geotechnical special provisions. These provisions would address any site-specific expansive soil hazards for future development under the General Plan update.

Therefore, adherence to the CBC and the City's Municipal Code would reduce the effects resulting from developing on unstable soils to a minimum. This impact is therefore considered to be **less than significant**.

Mitigation Measures

None required.

IMPACT 4.7-4 **Impacts to Unique Paleontological Resources.** *Earthmoving and excavation activities associated with adoption and implementation of the General Plan update could damage previously unknown unique paleontological resources. However, CEQA Guidelines Section 15064.5(f) and proposed General Plan policies would ensure that paleontological resources are not adversely impacted by future development under the proposed General Plan. This would be a **less than significant** impact.*

The General Plan does not propose any development activities that would directly disturb currently undiscovered paleontological resources. Future discretionary approvals that could result in the potential disturbance of paleontological resources will be subject to individual review of potential impacts under a separate CEQA document. Additionally, General Plan Environmental Resources Element Policy 9.6 requires any paleontological artifacts found in the city or the Sphere of Influence to be reported to the City and temporarily loaned to local museums like the Western Science Center for Archaeology and Paleontology in Hemet.

Mitigation Measures

None required.

Cumulative Impacts and Mitigation

Geotechnical impacts tend to be site-specific rather than cumulative in nature. For example, seismic events may damage or destroy a building on a project site, but the

construction of a development project on one site would not cause any adjacent parcels to become more susceptible to seismic events, nor can a project affect local geology in such a manner as to increase risks regionally.

IMPACT 4.7-5 Cumulative Geologic and Soil Hazards. *Subsequent land use activities associated with adoption and implementation of the General Plan update, in combination with other existing, planned, proposed, and reasonably foreseeable development in the region, may result in cumulative geologic and soil hazards. However, policy provisions in the General Plan update and continued implementation of the City’s Municipal Code would ensure that potential development is not adversely impacted by cumulative geologic and soil hazards. This is considered a **less than cumulatively considerable** impact.*

All new development in Palm Desert would be required to comply with the CBC, which mandates stringent earthquake-resistant design parameters and common engineering practices requiring special design and construction methods that reduce or eliminate potential expansive soil-related impacts. Furthermore, any development involving clearing, grading, or excavation that causes soil disturbance of 1 or more acres, or any project involving less than 1 acre that is part of a larger development plan and includes clearing, grading, or excavation, is subject to NPDES provisions. NPDES requirements would significantly reduce the potential for substantial erosion or topsoil loss to occur in association with new development by requiring an approved SWPPP that includes a schedule for the implementation and maintenance of erosion control measures and a description of erosion control practices, including appropriate design details and a time schedule. The General Plan update also requires that damage to new structures from seismic, geologic, or soil conditions be prevented to the maximum extent feasible.

Further, implementation of NPDES requirements and CBC standards, as discussed under Impact 4.7-2, would reduce cumulative impacts associated with geology and soils throughout the region. Furthermore, site-specific review, including geotechnical reports, required by the City of Palm Desert would reduce General Plan update’s contribution to cumulative impacts to **less than cumulatively considerable**.

Mitigation Measures

None required.

IMPACT 4.7-6 Cumulative Paleontological Impacts. *Adoption and implementation of the General Plan update, in addition to existing, approved, proposed, and reasonably foreseeable development in the region, could result in cumulative impacts to paleontological resources in the region. However, policy provisions in the proposed General Plan would ensure that impacts would be **less than cumulatively considerable**.*

While multiple impacts may occur during the implementation period of the General Plan, cumulative impacts are unlikely. Cumulative impacts that may occur would be reduced to **less than cumulatively considerable** levels by the requirements of CEQA, which include requirements for activities that preserve unique resources in place in an undisturbed state.

Mitigation Measures

None required.

References

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4.8. Hazards and Hazardous Materials

Introduction

This resource section evaluates the potential environmental effects related to hazards and hazardous materials associated with adoption and implementation of the General Plan update. The analysis includes a review of state hazardous materials databases, hazards related to schools, and emergency response procedures related to hazardous materials. Policies and implementation actions in the General Plan Safety Element ensure existing and new development, businesses, and the public are prepared for emergencies and the potential release of hazards or hazardous materials in the Planning Area.

NOP Comments: No comment letters were received in response to the Notice of Preparation (NOP) addressing hazards or hazardous materials.

Reference Information: Information for this chapter is based on numerous references, including the General Plan Update Technical Background Report (TBR) and other publicly available documents. The TBR prepared for the project is attached to this EIR as **Appendix 4.0**. This EIR, including the Technical Background Report, is also available electronically on the City's website (<http://www.cityofpalmdesert.org/our-city/general-plan-update>).

Environmental Setting

Section 10 of **Appendix 4.0** describes local hazards and hazardous materials conditions in Palm Desert. Key findings from the Technical Background Report are summarized below.

- The State Water Resources Control Board (SWRCB) maintains the GeoTracker database, which includes information to easily identify the location of a hazardous waste site and also maintains information about specific sites, including the current status of the site, chemicals of concern on the site, potential media affected, regulatory activities, and any data submitted to the oversight agency (e.g., the California Department of Toxic Substances Control). According to the GeoTracker database, there are no open leaking underground storage tank (LUST) sites in the Planning Area. GeoTracker does identify 31 closed case LUST sites that have completed site assessments and any required cleanup, if necessary. There are six non-LUST cleanup sites in the Planning Area, including five school sites. All school sites have been investigated and require no further action. The military site is identified as inactive (SWRCB 2014).
- The US Environmental Protection Agency (EPA) maintains a Superfund database with sites that are hazardous waste sites requiring cleanup. Enfield Chemical (EPA ID# CASFN0905404) is the only site in the Planning Area identified as a Superfund site; however, this site is not on the National Priority List for cleanup and is a removal-only site requiring no site assessment.
- The California Department of Toxic Substances Control (DTSC) summarizes all registered hazardous material transporters in the state. As of August 2015, one transporter was located in Palm Desert (DTSC 2014b). In addition, major transportation corridors such as Palm Desert Drive (Highway 111) or Interstate

10 (I-10) may be used to transport hazardous materials and represent accident risks that could result in releases of hazardous materials. When acutely toxic hazardous materials are transported, the California Highway Patrol (CHP) must be notified. The City does not designate specific haul routes for hazardous materials.

- Airport-related hazards are generally associated with aircraft accidents, particularly during takeoffs and landings. Other airport operation hazards include incompatible land uses, power transmission lines, wildlife hazards (e.g., bird strikes), and tall structures that penetrate the imaginary surfaces surrounding an airport. The nearest major airport to Palm Desert is Bermuda Dunes Airport, located in the Palm Desert Sphere of Influence. Figure 8-1 in the TBR (**Appendix 4.0**) shows the location of the airport. Bermuda Dunes Airport is privately owned. Operations include charter flights, hangar rentals, and a flight school.
- Fire hazard severity zones are modeled based on vegetation, topography, weather, fuel load type, and ember production and movement within the area in question. Fire hazard severity zones are defined as moderate, high, and very high fire hazard severity by the California Department of Forestry and Fire (Cal Fire) (2012a). Fire prevention areas considered to be under state jurisdiction are referred to as state responsibility areas, while areas under local jurisdiction are called local responsibility areas. As shown in Figure 8-2 in the TBR (**Appendix 4.0**), moderate, high, and very high fire hazard severity zones are located in the Planning Area, both within the existing city limits (local responsibility area) and in the Sphere of Influence (state responsibility area). Portions of the Planning Area to the north of I-10 contain moderate fire hazard severity zones. All of the high and very high fire hazard severity zones are located in the southern portion of the Planning Area, along with some limited moderate fire hazard severity zones along the urban edge (Cal Fire 2007).

Regulatory Setting

Federal, state, and local laws, regulations, and policies pertain to hazards and hazardous materials in the Planning Area. They provide the regulatory framework for addressing all aspects of hazards and hazardous materials that would be affected by adoption and implementation of the General Plan update. The regulatory setting for hazards and hazardous materials is discussed in detail in **Appendix 4.0**. Key regulations used to reduce potential impacts are summarized below.

Federal

Resource Conservation and Recovery Act

At the federal level, the principal agency regulating the generation, transport, and disposal of hazardous substances is the EPA, under the authority of the Resource Conservation and Recovery Act (RCRA). RCRA established an all-encompassing federal regulatory program for hazardous substances that is administered by the EPA. Under RCRA, the EPA regulates the generation, transportation, treatment, storage, and disposal of hazardous substances.

Comprehensive Environmental Response, Compensation, and Liability Act

Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, in 1980. CERCLA established

prohibitions and requirements concerning closed and abandoned hazardous waste sites, provided for liability of persons responsible for releases of hazardous waste at these sites, and established a trust fund to provide for cleanup when no responsible party could be identified.

Hazardous Liquid Pipeline and Natural Gas Pipeline Safety

The Hazardous Liquid Pipeline Safety Act of 1979 and the Natural Gas Pipeline Safety Act of 1968 authorize the US Department of Transportation (DOT) to regulate pipeline transportation of hazardous liquids, including crude oil, petroleum products, anhydrous ammonia, and carbon dioxide; transportation of flammable, toxic, or corrosive natural gas and other gases; and transportation and storage of liquefied natural gas. The US Pipeline and Hazardous Materials Safety Administration develops and enforces regulations for the safe, reliable, and environmentally sound operation of the nation's 2.6-million-mile pipeline transportation system (PHMSA 2014).

Regulation of Polychlorinated Biphenyls and Lead-Based Paint

The Toxic Substances Control Act of 1976 (Title 15, United States Code, Section 2605) banned the manufacture, processing, distribution, and use of polychlorinated biphenyls (PCB) in enclosed systems. The EPA Region 9 PCB Program regulates remediation of polychlorinated biphenyls in several states, including California. The Residential Lead-Based Paint Hazard Reduction Act of 1992 amended the Toxic Substances Control Act to include Title IV, Lead Exposure Reduction. The EPA regulates renovation activities that could create lead-based paint hazards in target housing and child-occupied facilities and has established standards for lead-based paint hazards and lead dust cleanup levels in most pre-1978 housing and child-occupied facilities.

Federal Aviation Regulations (FAR)

Federal Aviation Administration (FAA) regulations, known as Federal Aviation Regulations (FARs), provide regulatory guidance for the operation, development, and construction of airports and aircraft as well as the training of and conduct of pilots of all civil types and ratings. Included in the FARs are specific regulations guiding the operation of airports and requirements related to development adjacent to airports (14 CFR 77). FAR Part 77 pertains to objects affecting navigable airspace and establishes standards for determining obstructions in navigable airspace, sets forth the requirements for notice to the administrator of certain proposed construction or alteration, provides for aeronautical studies of obstructions to air navigation in order to determine their effect on the safe and efficient use of airspace, provides for public hearings on the hazardous effects of proposed construction or alteration on air navigation, and provides for the establishment of antenna farm areas.

Healthy Forest and Rangelands (National Fire Plan)

Healthy Forests and Rangelands is a cooperative effort between the US Department of the Interior (DOI), the US Department of Agriculture (USDA), and their land management agencies. Healthy Forests and Rangelands provides fire, fuels, and land management information to government officials, land and fire management professionals, businesses, communities, and other interested organizations and individuals. The National Fire Plan (NFP) was developed in August 2000, following a landmark wildland fire season, with the intent of actively responding to severe wildland fires and their impacts to communities while ensuring sufficient firefighting capacity for the future. The NFP was finalized in August 2001 by the DOI and the USDA and addresses five key points: firefighting, rehabilitation, hazardous fuels reduction, community assistance, and accountability.

State

Government Code Section 65962.5

The provisions of Government Code Section 65962.5 are commonly referred to as the Cortese List. The Cortese List is a planning document used by the state and local agencies to provide information about hazardous materials release sites. Government Code Section 65962.5 requires the California Environmental Protection Agency (Cal/EPA) to develop an updated Cortese List annually, at minimum. The DTSC is responsible for a portion of the information contained in the Cortese List. Other state and local government agencies are required to provide additional hazardous material release information for the list.

Emergency Services Act

Under the Emergency Services Act (California Government Code Section 8850 et seq.), the State developed an emergency response plan to coordinate the emergency services of federal, state, and local agencies. Quick response to natural and man-made incidents is a key part of the plan. The Governor's Office of Emergency Services (Cal OES) administers the plan and coordinates the responses of other agencies, including Cal/EPA, the CHP, the California Department of Fish and Wildlife, Regional Water Quality Control Boards, air quality management districts, and county disaster response offices.

Business Plan Act

The California Hazardous Materials Release Response Plans and Inventory Law of 1985 (Business Plan Act) requires preparation of hazardous materials business plans and disclosure of inventories of hazardous materials. A business plan includes an inventory of the hazardous materials handled, facility floor plans showing where hazardous materials are stored, an emergency response plan, and provisions for employee safety and emergency response training (California Health and Safety Code, Division 20, Chapter 6.95, Article 1). Statewide, the DTSC has primary regulatory responsibility for managing hazardous materials, with delegation of authority to local jurisdictions that enter into agreements with the State. Local agencies, including the Riverside County Environmental Health Department, administer these laws and regulations. Sections 12101 through 12103 of the California Health and Safety Code require that permits be obtained by those manufacturing, transporting, possessing, or using explosives and endorsed by the jurisdiction(s) in which the transportation or use would occur.

Hazardous Waste Control Act

The Hazardous Waste Control Act is codified in California Code of Regulations Title 26, which describes requirements for the proper management of hazardous wastes. The Hazardous Waste Control Act and Title 26 regulations list more than 800 potentially hazardous materials and establish criteria for identifying, packaging, and disposing of such wastes. To comply with these regulations, the generator of hazardous waste material must complete a manifest that accompanies the material from the point of generation to transportation to the ultimate disposal location, and is required to file copies of the manifest with the DTSC.

Underground Storage Tank Program

The California Department of Public Health and the SWRCB maintain lists of hazardous underground storage tanks for remediation. Sites are listed based on unauthorized release of toxic substances. Leak prevention, cleanup, enforcement, and tank testing certification are elements of the UST program.

Unified Program

Cal OES grants oversight and permitting responsibility to qualifying local agencies for certain state programs pertaining to hazardous waste and hazardous materials. Palm Desert's participation in the Unified Program is coordinated by the Riverside County Department of Environmental Health, as the designated Certified Unified Program Agency (CUPA) for the City.

Other State Regulations

In addition to state policies covering hazardous materials, the following state regulations are related to fire hazards:

- Wildland-Urban Interface Fire Area Building Standards
- Vegetation Management Program
- Fire Hazard Severity Zones
- Defensible Space Requirements
- Strategic Fire Plan and Cal Fire Unit Management Plans
- California Fire Code

A full description of these regulations can be found in the TBR (**Appendix 4.0**).

Regional and Local

Riverside County Operational Area Multi-Jurisdictional Hazard Mitigation Plan

The City of Palm Desert is a participating jurisdiction in the Riverside County Operational Area Multi-Jurisdictional Hazard Mitigation Plan (HMP). The HMP identifies the county's hazards, reviews and assesses past disaster occurrences, estimates the probability of future occurrences, and sets goals to mitigate potential risks to reduce or eliminate long-term risk to people and property from natural and man-made hazards for the County and Operational Area member jurisdictions, including the City of Palm Desert.

City of Palm Desert Local Hazard Mitigation Plan

In 2012, the City adopted its Local Hazard Mitigation Plan (LHMP) specific to the potential hazards in Palm Desert. Hazards addressed include drought, earthquake, flood, extreme heat, wildfire, hazardous materials, and terrorism. The LHMP meets the requirements of the Disaster Mitigation Act, which requires local governments to prepare plans that identify hazards and risks in a community and to create appropriate mitigation. The purpose of the LHMP is to integrate hazard mitigation strategies into the City's daily activities and programs.

City of Palm Desert Emergency Operations Plan

The City's Emergency Operations Plan addresses planned response to extraordinary emergency situations associated with natural disasters, technological incidents, and national security emergencies in or affecting Palm Desert. The plan describes the operations of the City's Emergency Operations Center, which is the central management entity responsible for directing and coordinating the various City departments and other agencies in their emergency response activities.

City of Palm Desert General Plan

The City's General Plan was last updated in 2004 and includes an Emergency Preparedness Element, which contains a number of policies and programs related to preparing for and responding to a number of hazards that may occur in the Planning Area. These policies and programs are identified in the TBR (**Appendix 4.0**).

Impacts and Mitigation Measures

Analysis Approach

The analysis of impacts is based on the likely consequences of adoption and implementation of the General Plan update compared to existing conditions. The following analysis of impacts related to hazards and hazardous materials is qualitative and based on available hazards and hazardous materials information for the Planning Area. The analysis assumes that all future and existing development in the Planning Area complies with applicable laws, regulations, design standards, and plans. An analysis of cumulative impacts uses qualitative information for the Planning Area.

General Plan Update Policies and Implementation Actions

General Plan update policies and implementation actions that reduce potential hazards and hazardous materials impacts include the following.

Policies

Safety Element

- **Policy 1.1: Hazards Information.** Establish and maintain a database containing maps and other information that identifies and describes the community's hazards.
- **Policy 1.2: Local Hazard Mitigation Plan.** Maintain and regularly update the City's Local Hazard Mitigation Plan (LHMP) as an integrated component of the General Plan, in coordination with Riverside County and other participating jurisdictions, to maintain eligibility for maximum grant funding.
- **Policy 1.3: Hazards Education.** Consult with agencies and partners to provide public education materials on safe locations and evacuation routes in case of emergency or hazardous event.
- **Policy 1.4: Critical Facilities.** Prepare existing critical facilities for resilience to hazards and develop new facilities outside of hazard-prone areas.
- **Policy 1.5: Emergency Plans and Processes.** Consult with the Coachella Valley Emergency Managers Association and CVAG to maintain and update the City's Emergency Operations Plan, and maintain disaster preparedness plans for evacuation and supply routes, communications networks, and critical facilities' capabilities.
- **Policy 1.6: Utility Reliability.** Coordinate with providers and agencies including the CVWD and Southern California Edison for access to reliable utilities and water supply to minimize potential impacts of hazards and emergencies to pipelines and infrastructure.
- **Policy 1.7: Citizen Preparedness.** Continue to promote citizen-based disaster preparedness and emergency response through Riverside County's Community Emergency Response Team (CERT) training and certifications.
- **Policy 4.1: Fire Preparation.** Maintain optimal fire readiness and response service in coordination with Riverside County and other agencies.

- **Policy 4.2: Fire Hazard Severity Zones.** Adopt and implement fire mitigation standards for areas designated as High and Very High Fire Hazard Severity Zones per Cal Fire.
- **Policy 4.3: Brush Clearance.** Require new development and homeowners associations to maintain brush clearance criteria that meets 120 percent of the current state requirement for fire hazard severity zones in the city.
- **Policy 4.4: Inventory of Structures for Fire Risk.** Prepare an inventory of all structures and ownership information for structures in each fire hazard severity zone in the city and the SOI.
- **Policy 4.5: Fire Education.** Disseminate information on fire risks and minimum standards, including guidance for new development in the wildland-urban interface and fire hazard severity zones.
- **Policy 6.1: Site Remediation.** Encourage and facilitate the adequate and timely cleanup of existing and future contaminated sites and the compatibility of future land uses.
- **Policy 6.2: Airport Hazards.** Upon annexation of areas within the Bermuda Dunes Airport Land Use Compatibility Plan Area, adopt and implement airport compatibility zones for protection of people and property.
- **Policy 6.3: Airport compatibility.** Require new development in the vicinity of Bermuda Dunes Airport to conform to the County's airport land use and safety plans. Notwithstanding the allowable land use intensities and densities set forth by the Land Use and Community Character Element, there may be more restrictive density and intensity limitations on land use and development parameters, as set forth by the Airport Land Use and Compatibility Plan. Additionally, per the Airport Land Use Plan, there may be additional limits, restrictions, and requirements, such as aviation easements, height limits, occupancy limits, and deed restrictions, required of new developments within the vicinity of the airport.
- **Policy 6.4: Wildlife Hazards Study.** New developments proposing golf course or significant open space and/or water features shall prepare a wildlife hazard study if the site is within the Airport Influence Area.
- **Policy 6.5: Airport Land Use Commission Review.** Before the adoption or amendment of this General Plan, any specific plan, the adoption or amendment of a zoning ordinance or building regulation within the planning boundary of the airport land use compatibility plan, refer proposed actions for review, determination and processing by the Riverside County Airport Land Use Commission as provided by the Airport Land Use Law. Notify the Airport Land Use Commission office and send a Request for Agency Comments for all new projects, and projects proposing added floor area or change in building occupancy type within 2 miles of the airport.
- **Policy 6.6: Federal Aviation Administration Review.** Projects that require an FAA notice and review will be conditioned accordingly by the City to obtain an FAA Determination of No Hazard to Air Navigation prior to issuance of any building permits.

- **Policy 6.7: Residential Development near airport.** New residential development within Airport Compatibility Zone D shall have a net density of at least five dwelling units per acre. New dwelling units should not be permitted as secondary uses of the Urban Employment Center General Plan Designation within Airport Compatibility Zone C.
- **Policy 6.8: Nonresidential Development near airport.** The land use intensity of nonresidential structures within Airport Compatibility Zones B1, C, and D shall be limited as set forth by Table 2A of the Airport Land Use Compatibility Plan.
- **Policy 6.9: Hospitals near airport.** Prohibit hospitals within Airport Compatibility Zones B1 and C and discouraged in Airport Compatibility Zone D.
- **Policy 6.10: Stadiums and gathering spaces.** Discourage major spectator-oriented sports stadiums, amphitheaters, concert halls shall be discouraged beneath principal flight tracks.
- **Policy 6.11: Regional coordination.** Promote coordinated long-range planning between the City, airport authorities, businesses and the public to meet the region's aviation needs.
- **Policy 6.12: Railroad Safety.** When considering development adjacent to the railroad right-of-way, work to minimize potential safety issues and land use conflicts associated with railroad adjacency.

Implementation Actions

Safety Element

- **Action 8-02.** Update the City's public GIS database with information on the extent and potential impact of seismic, geotechnical, fire, and flood hazards occurring in the city and the SOI. All future developments will be required to submit their data for incorporation into this database.
- **Action 8-03.** Consult Riverside County and other jurisdictions to monitor and update the City's LHMP.
- **Action 8-04.** Update the City's Critical Infrastructure/Facilities inventory included in the Emergency Operations Plan and Local Hazard Mitigation Plan.
- **Action 8-06.** Identify and analyze vulnerabilities of key privately owned critical facilities, such as hospitals and businesses, in the city that should remain in operation after an emergency event.
- **Action 8-07.** Encourage participation of representatives from local schools, universities, hospital facilities, and other local organizations in regional emergency planning efforts.

Thresholds of Significance

For the purposes of the EIR, impacts related to hazards and hazardous materials would be considered significant if adoption and implementation of the updated General Plan would:

Threshold	Determination
1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials	Less Than Significant Impact
2. Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment	Less Than Significant Impact
3. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school	Less Than Significant Impact
4. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment	No Impact
5. For a project located within an airport land use plan, result in a safety hazard for people residing or working in the project area	Less Than Significant Impact
6. For a project locate within 2 miles of a private airstrip, result in a safety hazard for people residing or working in the project area	Less Than Significant Impact
7. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan	Less Than Significant Impact
8. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires	Less Than Significant Impact

No sites in Palm Desert are included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. As such, Threshold 4 will not be discussed further in this EIR.

Impacts and Mitigation Measures

IMPACT 4.8-1 **Transport, Use, or Disposal of Hazardous Materials.** *Adoption and implementation of the General Plan update would result in an increase in the routine transport, use, and/or disposal of hazardous materials, which could result in the exposure of the public to such materials through either routine use or accidental release. Compliance with existing federal and state regulations would reduce risks of accidents associated with the routine transport, use, or disposal of hazardous materials to a **less than significant** level.*

Adoption and implementation of the General Plan update would enable development of new residential, commercial, industrial, and institutional uses. New development would result in increased transport, use, storage, and disposal of hazardous materials in the Planning Area. Of particular concern are facilities with leaking underground storage tanks or other methods of storage that could accidentally leak or be released

into the soil, groundwater, surface water, or air. Examples of these facilities include light industrial uses, gas stations, automotive repair shops, and dry cleaners.

The current regulatory environment provides a high level of protection from hazards and hazardous materials manufactured within, transported to, and stored in industrial and educational facilities. The City will continue to enforce disclosure laws that require users, producers, and transporters of hazardous materials and wastes to clearly identify the materials that they store, use, or transport and to notify the appropriate city, county, state, and federal agencies in the event of a violation. By recognizing these hazards and ensuring that an educated public is able to work with City officials to minimize risks associated with hazardous materials in the urban environment, the City can maintain safe conditions throughout the Planning Area. Facilities developed consistent with the General Plan update that would use hazardous materials on-site would be required to obtain permits and comply with appropriate regulatory agency standards designed to avoid hazardous waste releases and protect public health.

The amount of hazardous materials transported through the planning area on roadways, local routes, Palm Desert Drive (Highway 111), and Interstate 10 (I-10) would likely increase as a result of new development consistent with the General Plan update. As such, a greater number of people in the future could be potentially exposed to hazardous materials during accidental releases. At the federal level, the Resource Conservation and Recovery Act gives the EPA the authority to control the generation, transportation, treatment, storage, and disposal of hazardous waste. The hazardous materials regulations included in federal law govern the transportation of hazardous materials. The Federal Motor Carrier Safety Administration issues regulations concerning highway routing of hazardous materials, hazardous materials endorsements for a commercial driver's license, highway hazardous material safety permits, and financial responsibility requirements for motor carriers of hazardous materials.

The Riverside County Department of Environmental Health is the CUPA for Riverside County and is responsible for consolidating, coordinating, and making consistent the administrative requirements, permits, inspections, and enforcement activities of state standards regarding the transportation, use, and disposal of hazardous materials in Riverside County, of which the Palm Desert Planning Area is a part. The department implements the hazardous materials business plans that include an inventory of hazardous materials used, handled, or stored at any business in the city. The department is also responsible for regulating hazardous materials handlers, hazardous waste generators, underground storage tank facilities, aboveground storage tanks, and stationary sources handling regulated substances.

General Plan Safety Element Policy 1.1 directs the City to establish and maintain a database containing maps and other information that identifies and describes the community's hazards. Policy 1.2 directs the City to regularly maintain and update the Local Hazard Mitigation Plan as an integrated component of the General Plan. Policy 1.3 directs the City to consult with agencies and partners to provide public education materials on safe locations and evacuation routes in case of emergency or a hazardous event.

Compliance with and enforcement of existing federal, state, and local laws and regulations concerning the routine transport, use, or disposal of hazardous materials, supported by implementation of the General Plan update policies, would reduce potential impacts to a **less than significant** level.

Mitigation Measures

None required.

IMPACT 4.8-2 **Release of Hazardous Materials into the Environment.** *Adoption and implementation of the General Plan update would result in development that could lead to upset and/or accidental conditions involving the release of hazardous materials into the environment. However, compliance with existing federal and state regulations would reduce risks of accidental conditions. Therefore, hazards to public safety from reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment is less than significant.*

Adoption and implementation of the General Plan update would enable development of new residential, commercial, industrial, and institutional uses. New development could result in upset and/or accident conditions involving the release of hazardous materials into the environment. The public could also be exposed to hazardous materials if new development or redevelopment were to be located on a current or historical hazardous material site. Currently, there are no listed open LUST sites nor hazardous material sites known to handle and store hazardous materials or associated with a hazardous material–related release in Palm Desert. However, there is one registered hazardous materials transporter in Palm Desert.

Additionally, the California Geological Survey indicate that Palm Desert does not encompass any areas containing ultramafic rock (CGS 2016). Since natural asbestos occurs most commonly in association with ultramafic rocks, the potential for occurrence and distribution of naturally occurring asbestos fibers in the Planning Area is considered very low. Additionally, all of Riverside County, including Palm Desert, is identified as being in Zone 2 for radon, which indicates a predicted average indoor radon screening level between 2 picocuries per liter (pCi/L) and 4 pCi/L, considered a low potential for radon (EPA 2016). Modern building construction practices adequately ventilate structures to minimize this hazard. For these reasons, no impacts associated with naturally occurring asbestos or radon would be expected to occur.

The transport, storage, and use of hazardous materials by developers, contractors, business owners, and others are required to comply with federal, state, and local regulations during project construction and operation. Facilities that use hazardous materials are required to obtain permits from the EPA under the Resource Conservation and Recovery Act, which gives the EPA the authority to control the generation, transportation, treatment, storage, and disposal of hazardous waste. Additionally, the hazardous materials regulations included in federal law govern the transportation of hazardous materials. The Federal Motor Carrier Safety Administration issues regulations concerning highway routing of hazardous materials, hazardous materials endorsements for a commercial driver’s license, highway hazardous material safety permits, and financial responsibility requirements for motor carriers of hazardous materials. Locally, the Riverside County Department of Environmental Health is the CUPA for Riverside County and is responsible for consolidating, coordinating, and making consistent the administrative requirements, permits, inspections, and enforcement activities of state standards regarding the transportation, use, and disposal of hazardous materials in Riverside County. In addition, General Plan Safety Element Policy 1.5 directs the City to consult with the Coachella Valley Emergency Managers Association and the Coachella Valley

Association of Governments (CVAG) to maintain and update the City’s Emergency Operations Plan, and maintain disaster preparedness plans for evacuation and supply routes, communications networks, and critical facilities’ capabilities. Further, Policy 1.3 directs the City to consult with agencies and partners to provide public education materials on safe locations and evacuation routes in case of emergency or a hazardous event.

Compliance with and enforcement of existing laws and regulations concerning the upset and/or accidental release of hazardous materials into the environment, supported by implementation of the General Plan update policies, would ensure that the general public would not be exposed to any unusual or excessive risks related to accidental upset and/or release of hazardous materials into the environment. The impact is **less than significant**.

Mitigation Measures

None required.

IMPACT 4.8-3 **Emission or Handling of Hazardous or Acutely Hazardous Materials, Substances, or Waste within One-Quarter Mile of an Existing or Proposed School.** *Adoption and implementation of the General Plan update could result in development of uses that would emit or handle hazardous waste in proximity to new or existing schools. Compliance with existing regulations would reduce the risk of emissions or the handling of hazardous materials near schools to a **less than significant** level.*

Future land uses consistent with the General Plan update could include commercial uses within one-quarter mile of existing and new schools. However, the California Department of Education establishes standards for school sites pursuant to Education Code Section 17251 and adopts school site regulations, which are contained in the California Code of Regulations, Title 5, commencing with Section 14001. The regulations define certain health and safety requirements for school site selection, including a potential school site’s proximity to airports, high-voltage power transmission lines, railroads, and major roadways. Regulations regarding the placement of schools also restrict the presence of toxic and hazardous substances and hazardous facilities and hazardous air emissions within one-quarter mile of a proposed school site. In addition, as required by Education Code Section 17213, the written findings of the environmental impact report or negative declaration prepared for a proposed school site must include a statement verifying that the site is not currently or was not formerly a hazardous, acutely hazardous substance release, or solid waste disposal site or, if so, that the wastes have been removed. Also, the written findings must state that the site does not contain pipelines which carry hazardous wastes or substances other than a natural gas supply line to that school or neighborhood. If hazardous air emissions are identified, the written findings must state that the health risks do not and will not constitute an actual or potential danger of public health of students or staff. If corrective measures of chronic or accidental hazardous air emissions are required under an existing order by another jurisdiction, the governing board of the school district(s) serving the General Plan Update area is required to make a finding that the emissions have been mitigated prior to occupancy of the school.

The DTSC's School Property Evaluation and Cleanup Division is responsible for assessing, investigating, and cleaning up proposed school sites. The division ensures that proposed school sites are free of contamination or, if the properties were previously contaminated, that they have been cleaned up to a level that protects the students and staff who will occupy the new school. All proposed school sites that will receive state funding for acquisition or construction are required to go through a rigorous environmental review and cleanup process under the DTSC's oversight (DTSC 2014a).

California Environmental Quality Act (CEQA) Guidelines Section 15186, School Facilities, requires that school projects, as well as projects proposed to be located near schools, examine potential health impacts resulting from exposure to hazardous materials, wastes, and substances. Furthermore, permitting requirements for individual hazardous material handlers or emitters, including enforcement of Public Resources Code Section 21151.4, would require evaluation and notification where potential hazardous materials handling and emissions could occur in proximity to existing schools. Since any future placement of schools would be required to comply with state statutory and regulatory requirements addressing safety from hazards, including hazardous materials, impacts from the placement of schools in the vicinity of such hazards are anticipated to be **less than significant**.

Mitigation Measures

None required.

IMPACT 4.8-4 Safety Hazards to People Residing or Working Within 2 Miles of Bermuda Dunes Airport. *Adoption and implementation of the General Plan update could result in an increase of people residing or working within 2 miles of Bermuda Dunes Airport, which could result in a safety hazard. However, implementation of the General Plan policies and action would ensure site-specific constraints are taken into consideration during development. This impact would be **less than significant**.*

Bermuda Dunes Airport is located in the Palm Desert SOI, as shown in Figure 8-1 of the TBR (**Appendix 4.0**). As shown, some portions of the Sphere of Influence are located in Compatibility Zones B1, B2, C, D, and E of the Bermuda Dunes Airport Influence Area, which is regulated by the Riverside County Airport Land Use Commission (ALUC) for airport compatibility requirements. Implementation of the General Plan update could result in the construction of residential, commercial, and industrial uses in proximity to the airport. Safety hazards associated with airports are generally related to construction of tall structures that could interfere with airplane flight paths or related to an increase in the number of people working or residing in areas subject to crash hazards.

The Airport Influence Area is the area in which current or future airport-related noise, overflight, safety, or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses. Additionally, the Airport Influence Area may preclude certain types of land uses in some compatibility zones. The Airport Influence Area constitutes the area within which certain land use actions are subject to ALUC review. Table 2A of the Riverside County Airport Land Use Compatibility Plan – Volume 1 Policy Document outlines prohibited uses that correspond with each compatibility zone (Riverside County ALUC 2004).

However, implementation of the proposed Safety Element policies would ensure safety of people working or residing within 2 miles of Bermuda Dunes Airport. Safety Element Policy 6.2 directs the City to adopt and implement airport compatibility zones upon annexation of areas within the Bermuda Dunes Airport Land Use Compatibility Plan Area. Policy 6.3 requires new development in the vicinity of the airport to conform to the County’s airport land use and safety plans. Additionally, Policy 6.5 requires the Riverside County ALUC to review all new projects and projects proposing to add square footage or change in building occupancy type within 2 miles of the airport. Further, Policies 6.7 and 6.8 include residential density and nonresidential intensity for development within the Airport Compatibility Zones and require the range specified in Table 2A of the Airport Land Use Compatibility Plan.

Therefore, compliance with existing regulations, supported by implementation of the proposed policies associated with the General Plan update, would reduce programmatic airport safety impacts to a **less than significant** level.

Mitigation Measures

None required.

IMPACT 4.8-5 **Interference with an Adopted Emergency Response Plan.** *Adoption and implementation of the General Plan update would create additional traffic and future land uses requiring evacuation in the event of an emergency. However, implementation of the General Plan policies and actions would ensure conformance with countywide emergency response programs and continued cooperation with emergency response service providers. This impact would be **less than significant**.*

In the event of a hazardous material emergency, several agencies are responsible for timely response. The Riverside County Fire Department and the Palm Desert Police Department respond to large-scale, emergency hazardous material incidents within the city boundaries. The City’s Local Hazard Mitigation Plan specifies actions for the coordination of operations, management, and resources during emergencies. The proposed General Plan would not alter the city’s overall land use patterns or land use designations to such an extent that they would conflict with either the Local Hazard Mitigation Plan or the operations of local agencies.

Additionally, an efficient circulation system is vital for the evacuation of residents and the mobility of fire suppression, emergency response, and law enforcement vehicles during an emergency. Implementation of the updated General Plan would result in an increased number of people who would require evacuation in case of an emergency. Proposed General Plan Safety Element Policy 4.1 directs the City to maintain optimal fire readiness and response service in coordination with Riverside County and other agencies. Additionally, Palm Desert Municipal Code Section 26.40.040 establishes minimum roadway widths for subdivision development. Minimum widths range from 24 to 106 feet, with standards that vary based on street parking characteristics. This provision reduces risks associated with inadequate access by emergency responders. Therefore, implementation of the General Plan would not impair the City’s ability to implement its emergency response plan or utilize its emergency evacuation routes. As such, impacts would be **less than significant**.

Mitigation Measures

None required.

IMPACT 4.8-6 **Exposure of Structures to Urban and Wildland Fire.** *Adoption and implementation of the General Plan update would increase population located in proximity to wildlands, which would increase the risk from potential wildland fires. However, implementation of the General Plan actions would reduce the potential for exposure of people or structures to wildland fires. This impact would be **less than significant**.*

Areas at risk for extreme wildfires are designated by Cal Fire and include lands where dense vegetation with severe burning potential is present. As shown in Figure 8-2 of the TBR (**Appendix 4.0**), moderate, high, and very high fire hazard severity zones are located in the Planning Area, both within the existing city limits (local responsibility area) and in the Sphere of Influence (state responsibility area). Portions of the Planning Area to the north of I-10 contain moderate fire hazard severity zones. All of the high and very high fire hazard severity zones are located in the southern portion of the Planning Area, along with some limited moderate fire hazard severity zones along the urban edge (Cal Fire 2007).

Hazards to life and property are affected by fire and by road access for evacuation, the number of available firefighters, vegetation clearance around property, the availability of water and water pressure, and the effectiveness of building and fire codes and inspection of developments in areas of higher fire hazard. The Riverside County Fire Department would increase involvement in the planning process to minimize impacts in urbanized areas most at risk for structural fires, as well as in hillside areas where fire has a greater potential to spread.

Several proposed policies would protect people and property from wildland fire hazards. Safety Element Policy 4.1 directs the City to maintain optimal fire readiness and response service in coordination with Riverside County and other agencies. Policy 4.2 directs the City to adopt and implement fire mitigation standards for areas designated by Cal Fire as high and very high fire hazard severity zones. Policy 4.3 requires new developments and homeowners associations to maintain brush clearance criteria that meets 120 percent of the current state requirement for fire hazard severity zones in the city.

Implementation of the proposed policies contained in the General Plan update and compliance with existing federal, state, and local laws and regulations related to wildland fire hazards would result in program-level impacts that would be **less than significant**.

Mitigation Measures

None required.

Cumulative Impacts and Mitigation

The cumulative setting for hazards associated with the General Plan update generally consists of existing and future uses in Palm Desert. Cumulative impacts associated with hazardous materials and human health risks from increased development may include, but are not limited to, impacts on transportation, air quality, hydrology and water quality, and biological resources. The cumulative impacts associated with these potentially affected resources are analyzed in the applicable sections of this Draft EIR.

IMPACT Cumulative Hazards and Hazardous Material Impacts.

4.8-7 *Implementation of the General Plan update, in addition to existing, approved, proposed, and other reasonably foreseeable projects, would not result in cumulative hazardous material and human health risk impacts. The General Plan's contribution to cumulative hazards and hazardous materials impacts would be **less than cumulatively considerable**.*

As the city grows, more people may be exposed to hazards and hazardous materials identified in the impact discussions above. However, exposure to existing known hazardous materials is usually site specific and not cumulative in nature. Future development consistent with the General Plan is required to follow policies that notify the public of a proposed use that involves hazardous materials. Hazardous materials use at a specific location is subject to state and federal regulations linked to the material(s) involved. Transportation of hazardous materials is regulated by the Riverside County Department of Environmental Health, which, as previously discussed, issues permits to and conducts inspections of businesses that use, store, or handle quantities of hazardous materials and/or waste. The department also implements the hazardous materials business plans that include an inventory of hazardous materials used, handled, or stored at any business in Palm Desert.

Development consistent with the proposed General Plan would not typically result in the additional exposure of people elsewhere in the cumulative setting area, nor would development result in an increase in environmental hazards from pre-existing hazardous materials or operations in the Planning Area.

Some hazard impacts can be considered cumulative. Increased commercial development can create the potential for more transportation of hazardous materials through a given area. An increase in the number of businesses commonly results in additional storage, use, and the need for disposal of hazardous materials in the common course of business. While the General Plan update includes the potential for residential and commercial development, the increased storage, use, and disposal of hazardous materials would be limited to small quantities associated with these types of development.

While some cumulative impacts will occur as the area identified in the cumulative setting continues to develop, several regulations, policies, and laws are in place that will reduce the risk to people and structures in the region. Considering the protection granted by local, state, and federal agencies and their requirements for development and use of hazardous materials, the overall cumulative impact would not be significant. By the same token, the General Plan's incremental contribution to cumulative hazards and hazardous materials impacts would be **less than cumulatively considerable**.

Mitigation Measures

None required.

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4.9. Hydrology and Water Quality

Introduction

This resource section evaluates the potential environmental effects related to hydrology and water quality associated with implementation of the General Plan update. The analysis includes a review of the watershed, surface water, groundwater, flooding, tsunami, wave run-up, sea level rise, stormwater, and surface water and groundwater quality. Water supply and wastewater treatment are discussed in Section 4.14, Public Services and Utilities of this EIR. Topics including erosion and sedimentation are discussed in Section 4.7, Geology and Soils. Issues regarding wetlands and waters of the United States are discussed in Section 4.5, Biological Resources, and contamination from hazardous materials is discussed in Section 4.8, Hazards and Hazardous Materials. Policies and implementation actions from the General Plan update guide development and infrastructure practices to protect surface water and groundwater from degradation associated with runoff and pollution, reduce water consumption, and protect against flooding hazards.

NOP Comments: One comment letter from the Floodplain Management and Insurance Branch was received in response to the Notice of Preparation (NOP) addressing hydrology and water quality concerns. The comment, dated August 24, 2015, requests the review of the current effective countywide Flood Insurance Rate Maps (FIRMs) for the Riverside County and Palm Desert. A response to this comment is included below.

Reference Information: Information for this resource section is based on numerous references, including the General Plan Update Technical Background Report (TBR) and other publicly available documents. The TBR prepared for the project is attached to this EIR as **Appendix 4.0**. The EIR, including the Technical Background Report, is also available electronically on the City's website (<http://www.cityofpalmdesert.org/our-city/general-plan-update>).

Environmental Setting

Section 9 of **Appendix 4.0** describes in detail the regional and local hydrology as well as the groundwater hydrology of the Planning Area. Federal Emergency Management Agency (FEMA) flood zones are described and mapped. Surface water and groundwater quality are also discussed. Key findings from the Technical Background Report are summarized below.

Hydrology

Surface Water: Limited surface water is available in the winter and spring months from the Whitewater River, Palm Valley Stormwater Channel, Ramon Creek, Bruce Creek, Dead Indian Creek, and Cat Creek, as well as a number of smaller creeks and washes. The majority of local surface water is derived from runoff from the San Bernardino and San Jacinto mountains, with lesser amounts from the Santa Rosa Mountains. This runoff either percolates in the streambeds or is captured in mountain-front debris basins where it recharges the groundwater basin. According to the estimates developed for the 2010 Coachella Valley Water Management Plan (CVWMP) update, an average of approximately 44,000 acre-feet per year (AFY) of surface water recharges the Whitewater River subbasin. With the change in surface water use, the long-term average surface water available for recharge is estimated to

be about 46,400 AFY. In 2009, surface water supplied less than 1 percent of the total water supply to the West Valley to meet urban and golf course demands. Figure 9-1 of the TBR (**Appendix 4.0**) shows the existing surface water in the city and Sphere of Influence (SOI). The Coachella Valley Water District (CVWD) and the Riverside County Flood Control and Water Conservation District are responsible for the management of regional drainage within and in the vicinity of Palm Desert, including rivers, major streams and their tributaries, and areas of significant sheet flooding. Regional drains in the city and SOI include the Whitewater Channel (called the Coachella Valley Stormwater Channel south of the city and SOI), the Palm Valley Channel, and the Mid-Valley Regional Channel. Figure 9-2 of the TBR (**Appendix 4.0**) shows the network of drainage lines.

Groundwater: The Planning Area is in the Whitewater River (Indio) subbasin of the Coachella Valley Groundwater Basin. CVWD provides domestic water services to Palm Desert using wells to extract groundwater from the subbasin. The groundwater supply of the Whitewater River subbasin consists of a combination of natural runoff, inflows from adjacent basins, returns from groundwater, recycled water, and imported water use. The supply is supplemented with artificial recharge with imported State Water Project Exchange and Colorado River water. Total inflows and outflows to the West Valley of the Whitewater River subbasin for the year 2013 are summarized in **Table 4.9-1**. The natural inflow of 36,000 AFY includes natural replenishment and flow across subbasin boundaries. The nonconsumptive return of applied water is estimated at 63,698 acre-feet, which is 35 percent of the reported production of 181,994 AFY. The total inflow includes the natural inflow, the nonconsumptive return, and the 26,620 acre-feet of actual water replenished. The total outflow is the reported groundwater production plus 7,000 AFY of natural outflow.

Table 4.9-1 Annual Water Balance in the West Valley Portion of the Whitewater River Subbasin

Item Annual Calculation (AF)	2013
Groundwater Production	-181,994
Non-consumptive return (1)	63,698
Natural inflow (2)	36,000
Natural outflow (3)	-7,000
Groundwater replenishment (4)	26,620
Annual balance (5)	-62,676

Source: Coachella Valley Water District 2014

(1) Based on 35 percent of production (181,994 AF x 0.35 = 63,698 AF).

(2) Natural replenishment and flows across subbasin boundaries (USGS 1992).

(3) Subsurface flows to the east portion of the Whitewater River subbasin (USGS 1992).

(4) Water delivered to the Whitewater Groundwater Replenishment Facility.

(5) This is a decrease in stored groundwater equal to 0.22 percent of the subbasin's storage capacity

Overdraft: In 2013, the annual water balance for the West Valley portion of the Whitewater River subbasin was negative, constituting an increase in the cumulative overdraft. Imported water may offset groundwater overdraft in a particular year.

However, on a long-term basis, water requirements are likely to continue to place demands on groundwater in storage. The 2010 CVWMP update outlines a plan to address long-term overdraft in the Coachella Valley.

Groundwater Storage: In 1964, the California Department of Water Resources (DWR) estimated that the subbasins in the Coachella Valley Groundwater Basin contained, in the first 1,000 feet below the ground surface, approximately 39,200,000 acre-feet of water. The capacities of the subbasins are shown in **Table 4.9-2**.

Table 4.9-2 Estimated Groundwater Storage Capacity of the Coachella Valley Groundwater Basin

Subbasin	Estimated Groundwater Storage Capacity
San Gorgonio Pass Subbasin	2,700,000
Mission Creek Subbasin	2,600,000
Desert Hot Springs Subbasin	4,100,000
Garnet Hill Subbasin	1,000,000
<i>Subtotal</i>	<i>10,400,000</i>
Whitewater River (Indio) Subbasin	
Palm Springs Subarea	4,600,000
Thousand Palms Subarea	1,800,000
Oasis Subarea	3,000,000
Thermal Subarea	19,400,000
<i>Subtotal Whitewater River Subbasin</i>	<i>28,800,000</i>
Total All Subbasins	39,200,000

Source: Coachella Valley Water District 2014

1. First 1,000 feet below ground surface (DWR 1964).

Stormwater Runoff: The National Pollutant Discharge Elimination System (NPDES) implements the federal Clean Water Act and was adopted in 1990. The NPDES mandates that plans and programs for stormwater management be developed, adopted, and implemented to assure that municipalities “effectively prohibit non-stormwater discharge into storm drains, and requires controls to reduce the discharge of pollutants from stormwater systems to waters of the United States to the maximum extent possible.” Pollutant control measures are exempt from California Environmental Quality Act (CEQA) analysis. The City of Palm Desert is a co-permittee with the County of Riverside, CVWD, Riverside County Flood Control and Water Conservation District, and municipalities in the Whitewater River subbasin for NPDES management. The Palm Desert Public Works Department manages the City’s NPDES program.

Dam Failure: The city and SOI do not include water reservoirs or dams subject to failure; however, the Wide Canyon Dam located in Fun Valley has the potential to inundate portions of the Coachella Valley. The Wide Canyon Dam is an earthfill dam,

built in 1968, with a dam height of 84 feet and storage of 1,490 acre-feet, and is maintained by the Riverside County Flood Control and Water Conservation District. The statutes governing dam safety are defined in Division 3 of the California Water Code. It empowers the California Division of Safety of Dams to monitor the structural safety of dams that are greater than 25 feet in dam height or 50 acre-feet in storage capacity.

Flood Hazards: Potential flooding problems in Palm Desert are associated with storm flows in the Whitewater River and its tributaries, flooding on the alluvial fans, and runoff associated with the Indio Hills and the foothills of the San Bernardino and Little San Bernardino mountains. Floods that impact the city can be attributed to three types of storm events: general winter storms, combining high-intensity rainfall and rapid melting of the mountain snowpack; tropical storms out of the southern Pacific Ocean; and summer thunderstorms. A summer storm poses a greater threat of flooding to the valley than a winter storm because of its high intensity and short duration of rainfall. The eccentricity of this type of storm can be characterized by the impact of the September 1976 summer-type storm, which resulted in no significant damage to Rancho Mirage, Indian Wells, and La Quinta, yet caused extensive damage to Palm Desert. Most of the rainfall in the region occurs during the cooler months of November through March, but occasional high-intensity thunderstorms and tropical storms occur in late summer and early fall. Although the ground may be generally dry at the beginning of a storm, sufficient amounts and intensities of rainfall can saturate the surface, substantially reducing percolation and increasing runoff. Figure 9-3 of the TBR (**Appendix 4.0**) illustrates FEMA's 100-year flood zone areas for Palm Desert. A 100-year flood is an event that has a 1 percent chance of occurring in any given year. Most of the portion of the city and SOI north of Interstate 10 is in a 100- or 500-year (0.2 percent chance of occurring in any given year) flood zone. The Palm Valley Stormwater Channel and the Whitewater River are in a 100-year flood zone. In addition, a small portion of the city and SOI near the Palm Valley Stormwater Channel is in a 500-year flood zone.

Water Quality

Surface Water

The US Environmental Protection Agency (EPA) identifies impaired bodies of surface water under federal Clean Water Act (CWA) Section 303(d). Impairment is measured by total maximum daily load (TMDL), which is the maximum amount of a pollutant that a body of water can receive while still meeting water quality standards. There are currently no impaired bodies of surface water within the city and SOI.

Groundwater

Groundwater quality in the Coachella Valley varies with depth, proximity to faults, presence of surface contaminants, proximity to recharge basins, and other hydrogeologic or cultural features. Colorado River water used for direct delivery and recharge in the Coachella Valley has higher total dissolved solids (TDS) concentrations on average than most of the local groundwater. Based on historical and projected variations in Colorado River water quality, the TDS range for the State Water Project (SWP) Exchange water recharged at the Whitewater River Recharge Facility is 530 to 750 milligrams per liter (mg/L), averaging 636 mg/L since 1973.

The use of Colorado River water for groundwater recharge increases salinity in the Coachella Valley Groundwater Basin. Increased salinity has been observed in wells near the Whitewater River Recharge Facility, which services the West Valley.

The CVWD 2010 Water Management Plan identifies current and emerging groundwater quality issues including salinity (as discussed above), arsenic, perchlorate, chromium-6, uranium, nitrate, carcinogens, and endocrine-disrupting compounds. CVWD continually monitors each of these issues to ensure water quality in the Coachella Valley.

Regulatory Setting

Federal, state, and local laws, regulations, and policies pertain to hydrology and water quality in the Planning Area. They provide the regulatory framework for addressing all aspects of hydrology and water quality that would be affected by implementation of the General Plan update. The regulatory setting for hydrology and water quality is discussed in detail in Chapter 9 of the TBR (**Appendix 4.0**). Key regulations used to reduce the potential impacts of the General Plan update are summarized below.

Federal

Clean Water Act

The Clean Water Act (CWA) of 1972 is the primary federal law that governs and authorizes the EPA and the states to implement activities to control water quality. The following sections outline the various water quality elements of the CWA that apply to the General Plan update.

- **Water Quality Criteria and Standards.** The EPA is the federal agency with primary authority for implementing regulations adopted under the Clean Water Act. The EPA has delegated to the State of California the authority to implement and oversee most of the programs authorized or adopted for CWA compliance through the State's Porter-Cologne Act, described below. Under federal law, the EPA has published water quality regulations under Volume 40 of the Code of Federal Regulations. CWA Section 303 requires states to adopt water quality standards for all surface waters in the United States. As defined by the CWA, water quality standards consist of the designated beneficial uses of the water body in question and criteria that protect the designated uses. Section 304(a) requires the EPA to publish advisory water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in water. Where multiple uses exist, water quality standards must protect the most sensitive use.
- **National Pollutant Discharge Elimination System Permit Program.** The CWA established the NPDES permit program to regulate municipal and industrial discharges to surface waters. A discharge from any point source is unlawful unless the discharge is in compliance with an NPDES permit. Federal NPDES permit regulations have been established for broad categories of point source discharges including industrial wastewater, municipal wastewater, and point sources of stormwater runoff, including municipal separate storm sewer systems and industrial stormwater, which includes construction sites. NPDES permits generally establish effluent and receiving water limits on allowable concentrations and/or mass emissions of pollutants contained in the discharge, prohibitions on discharges not specifically allowed under the permit, and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities. The City of Palm Desert is a co-permittee with the County of

Riverside, CVWD, Riverside County Flood Control and Water Conservation District, and municipalities within the Whitewater River Basin for NPDES management. The City Public Works Department manages the City's NPDES program. The City of Palm Desert is regulated because its stormwater is managed as part of a large, interconnected flood control system operated by the Riverside County Flood Control and Water Conservation District. Construction sites in the Planning Area that disturb 1 acre or more must obtain coverage under the statewide NPDES Construction General Permit. Currently no industrial facilities in the Planning Area are subject to the statewide NPDES Industrial General Permit. The Regional Water Quality Control Boards implement the NPDES permit system (see additional information under the State subsection below). The Planning Area is within the jurisdiction of the Colorado River Basin Regional Water Quality Control Board (RWQCB).

- **Section 401 Water Quality Certification or Waiver.** Under Section 401 of the CWA, an applicant for a Section 404 permit (to discharge dredged or fill material into waters of the United States) must first obtain a certificate from the appropriate state agency stating that the fill is consistent with the state's water quality standards and criteria. In California, the nine Regional Water Quality Control Boards have the authority to grant water quality certification or waive requirements.
- **Section 303(d) Impaired Waters List.** Section 303(d) of the CWA requires states to develop lists of water bodies that would not attain water quality objectives after implementation of required levels of treatment by point-source dischargers (municipalities and industries). Section 303(d) requires that the state develop a TMDL for each of the listed pollutants. As noted previously, the TMDL is the amount of loading that the water body can receive and still be in compliance with water quality objectives. The TMDL can also act as a plan to reduce loading of a specific pollutant from various sources to achieve compliance with water quality objectives. The State-prepared TMDL must include an allocation of allowable loadings to point and nonpoint sources, with consideration of background loadings (sources of naturally occurring pollutants) and a margin of safety. The TMDL must also include an analysis that shows links between loading reductions and the attainment of water quality objectives. NPDES permit limits for listed pollutants must be consistent with the waste load allocation prescribed in the TMDL. After implementation of a TMDL, it is intended that the problems which led to placement of a given pollutant on the Section 303(d) list would be remediated.

National Flood Insurance Program

FEMA administers the National Flood Insurance Program to provide subsidized flood insurance to communities that comply with FEMA regulations limiting development in floodplains. FEMA also issues Flood Insurance Rate Maps (FIRMs) identifying land areas subject to flooding. These maps provide flood information and identify flood hazard zones communities. FEMA established the design standard for flood protection in areas covered by FIRMs, with the minimum level of flood protection for new development determined to be a 1-in-100 probability of annual exceedance (i.e., the 100-year flood event). As developments are proposed and constructed, FEMA is also responsible for issuing revisions to FIRMs, such as Conditional Letters of Map Revision

and Letters of Map Revision through the local agencies that work with the National Flood Insurance Program.

US Army Corps of Engineers

The US Army Corps of Engineers (USACE) is responsible for issuing permits for the placement of fill or discharge of material into waters of the United States. These permits are required under Clean Water Act Sections 401 and 404. Water supply projects that involve stream construction, such as dams or other types of diversion structures, trigger the need for these permits and related environmental reviews by the USACE. The USACE also is responsible for flood control planning and assisting state and local agencies with the design and funding of local flood control projects.

State

State Water Resources Control Board (SWRCB)

In California, the SWRCB has broad authority over issues related to controlling water quality for the state. The SWRCB is responsible for developing statewide water quality policy and exercises the powers delegated to the state by the federal government under the Clean Water Act. Regional authority for planning, permitting, and enforcement is delegated to the nine Regional Water Quality Control Boards (RWQCBs). The regional boards are required to formulate and adopt basin plans for all areas in the region and establish water quality objectives in the plans. California water quality objectives (or “criteria” under the CWA) are found in the basin plans adopted by the SWRCB and each of the nine regional boards. In 2006, the SWRCB adopted Order Number 2006-003 establishing General Waste Discharge Requirements for all publicly owned or operated sanitary sewer systems in California. The waste discharge requirements require owners and operators of sewer collection systems to report sanitary sewer overflows using the California Integrated Water Quality System and to develop and implement a Sewer System Management Plan. Section 4.14, Public Services and Utilities, of this EIR addresses wastewater treatment issues and the state regulations that apply to the demonstration of adequate water supply for the future water demands associated with implementation of the General Plan update.

Title 22 Standards

California’s drinking water quality standards are contained in Title 22 of the California Code of Regulations. Water quality standards are enforceable limits composed of two parts: the designated beneficial uses of water and criteria (i.e., numeric or narrative limits) to protect those beneficial uses. Municipal and domestic supply is among the beneficial uses defined in Section 13050(f) of the Porter-Cologne Act as uses of surface water and groundwater that must be protected against water quality degradation. Drinking water maximum contaminant levels directly apply to water supply systems “at the tap” (i.e., at the point of use by consumers in, for example, their home and office) and are enforceable by the State. When fully health-protective, maximum contaminant levels may also be used to interpret narrative water quality objectives prohibiting toxicity to humans in water designated as a source of drinking water in the basin plan.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Act is California’s statutory authority for the protection of water quality. Under the act, the State must adopt water quality policies, plans, and objectives that protect the state’s waters for the use and enjoyment of the people. The act sets forth the obligations of the SWRCB and the RWQCBs to adopt and

periodically update basin plans. Basin plans are the regional water quality control plans required by both the Clean Water Act and the Porter-Cologne Act in which beneficial uses, water quality objectives, and implementation programs are established for each of the nine regions in California. The act also requires waste dischargers to notify the RWQCBs of their activities through the filing of reports of waste discharge and authorizes the SWRCB and the RWQCBs to issue and enforce waste discharge requirements (WDR), NPDES permits, Section 401 water quality certifications, or other approvals. The RWQCBs also have authority to issue waivers to reports of waste discharge and/or waste discharge requirements for broad categories of “low threat” discharge activities that have minimal potential for adverse water quality effects when implemented according to prescribed terms and conditions.

Colorado River Basin Regional Water Quality Control Board Basin Plan

The city and SOI are in the Colorado River Basin RWQCB, which is responsible for the preparation and implementation of the water quality control plan for the Colorado River Basin. The basin plan defines the beneficial uses, water quality objectives, implementation programs, and monitoring and assessment programs for the waters in the region.

California State Nondegradation Policy

In 1968, the SWRCB adopted a nondegradation policy aimed at maintaining high quality for waters in California. The nondegradation policy states that the disposal of wastes into state waters shall be regulated to achieve the highest water quality consistent with maximum benefit to the people of the state and to promote the peace, health, safety, and welfare of the people of California. The policy provides as follows:

- Where the existing quality of water is better than required under existing water quality control plans, such quality would be maintained until it has been demonstrated that any change would be consistent with maximum benefit to the people of the state and would not unreasonably affect present and anticipated beneficial uses of such water.
- Any activity which produces waste or increases the volume or concentration of waste and which discharges to existing high-quality waters would be required to meet waste discharge requirements, which would ensure (1) pollution or nuisance would not occur and (2) the highest water quality consistent with the maximum benefit to the people of the state would be maintained.

NPDES Permit System and Waste Discharge Requirements for Construction

The SWRCB and the Colorado River Basin RWQCB have adopted specific NPDES permits for a variety of activities that have potential to discharge wastes to waters of the State. The SWRCB General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order 2009-0009-Division of Water Quality) applies to all land-disturbing construction activities that would affect 1 acre or more. The Colorado Basin Regional Water Quality Control Board has issued a general NPDES permit and general WDRs governing construction-related discharges in the Colorado Basin RWQCB’s jurisdictional area (Colorado Basin RWQCB Order No. R7-2015-0006, NPDES No. CAG997001 for low threat discharges to surface waters). Activities subject to the NPDES general permit for construction activity must develop and implement a stormwater pollution prevention plan (SWPPP). The SWPPP includes

a site map and description of construction activities and identifies the best management practices (BMPs) that will be employed to prevent soil erosion and discharge of other construction-related pollutants, such as petroleum products, solvents, paints, and cement that could contaminate nearby water resources.

California Toxics Rule (CTR) and State Implementation Plan (SIP)

The CTR was issued in 2000 in response to requirements of the EPA National Toxics Rule and establishes numeric water quality criteria for approximately 130 priority pollutant trace metals and organic compounds. The CTR criteria are regulatory criteria adopted for inland surface waters, enclosed bays, and estuaries in California that are subject to Clean Water Act Section 303(c). The CTR includes criteria for the protection of aquatic life and human health. Human health criteria (water- and organism-based) apply to all waters with a Municipal and Domestic Water Supply Beneficial Use designation as indicated in the basin plans.

Municipal Stormwater Permit Program

The SWRCB Municipal Storm Water Permitting Program regulates stormwater discharges from Municipal Separate Storm Sewer Systems (MS4). The current MS4 permit requires the discharger to develop and implement a stormwater management plan/program with the goal of reducing the discharge of pollutants in stormwater to the maximum extent practicable (MEP). The MEP is the performance standard specified in Clean Water Act Section 402(p). The management programs specify what BMPs will be used to address certain program areas.

Urban Water Management Act

Each urban water supplier in California is required to prepare an urban water management plan (UWMP) and update the plan on or before December 31 in years ending in 5 and 0, pursuant to California Water Code Sections 10610–10657, as last amended by Senate Bill (SB) 318 (Chapter 688, Statutes of 2004), the Urban Water Management Planning Act. SB 318 is the eighteenth amendment to the original bill requiring an UWMP, which was initially enacted in 1983. The city and SOI are included in the CVWD Coachella Valley Water Management Plan (2012).

Recycled Wastewater Requirements

Wastewater recycling in California is regulated under California Code of Regulations Title 22, Division 4, under the jurisdiction of the California Department of Public Health. The intent of these regulations is to ensure protection of public health associated with the use of recycled water. The regulations establish acceptable levels of constituents in recycled water for a range of uses and prescribe means for ensuring reliability in the production of recycled water. Using recycled water for nonpotable uses is common throughout the state and is an effective means of maximizing use of water resources. The Colorado River Basin RWQCB establishes water reclamation requirements under the Title 22 regulations and is responsible for implementing wastewater recycling projects.

Regional

Regional Water Quality Control Board, Colorado River Basin

The city and SOI are under the jurisdiction of the Colorado River Basin RWQCB, which is responsible for the preparation and implementation of the water quality control plan for the basin. The basin plan defines the beneficial uses, water quality objectives, implementation programs, and monitoring and assessment programs for the waters in the region.

Water Quality Control Plan for the Colorado River Basin (Basin Plan): The Water Quality Control Plan for the Colorado River Basin designates beneficial uses for water bodies in the Palm Desert region and establishes water quality objectives and implementation plans to protect those beneficial uses. Specifically, the Basin Plan designates beneficial uses for surface water and groundwater; sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's anti-degradation policy; describes implementation programs to protect the beneficial uses of all waters in the region; and describes surveillance and monitoring activities to evaluate the effectiveness of the Basin Plan.

The Colorado River Basin RWQCB issues permits, called waste discharge requirements and master reclamation permits, which require that waste and reclaimed water not be discharged in a manner that would cause an exceedance of applicable water quality objectives or adversely affect beneficial uses designated in the Basin Plan. The Colorado River Basin RWQCB enforces these permits through a variety of administrative means. **Table 4.9-3** lists beneficial uses of the receiving waters in the Salton Sea watershed.

Table 4.9-3 Beneficial Uses for the Receiving Waters for the Salton Sea Watershed

Beneficial Uses	Water Body		
	Whitewater River	Snow Creek	Colorado River
MUN	X	X	X
AGR	X		X
AQUA			X
IND	X		X
GWR	X	X	X
REC-1	X	X	X
REC-2	I		X
WARM	X		X
COLD	X	X	
WILD	X	X	X
POW	X		X
RARE			X

Source: Colorado River Basin RWQCB, 2014

Notes: X = Existing Beneficial Use; I = Intermittent Beneficial Use

As listed in **Table 4.9-3**, beneficial uses include the following:

- Municipal and Domestic Supply (MUN) – Uses of water for community, military, or individual water supply systems including, but not limited to, drinking water supply.

- Agricultural Supply (AGR) – Includes uses of water for farming, horticulture, or ranching including, but not limited to, irrigation, stock watering, or support of vegetation for range grazing.
- Aquaculture (AQUA) - Uses of water for aquaculture or mariculture operations including, but not limited to, propagation, cultivation, maintenance, or harvesting of aquatic plants and animals for human consumption or bait purposes.
- Industrial Service Supply (IND) – Uses of water for industrial activities that do not depend primarily on water quality including, but not limited to, mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection, or oil well re-pressurization.
- Groundwater Recharge (GWR) – Uses of water for natural or artificial recharge of groundwater for purposes of future extraction, maintenance of water quality, or halting of saltwater intrusion into freshwater aquifers.
- Water Contact Recreation (REC-1) – Uses of water for recreational activities involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, swimming, wading, water-skiing, skin and scuba diving, surfing, whitewater activities, fishing, or use of natural hot springs.
- Non-Contact Water Recreation (REC-2) – Uses of water for recreational activities involving proximity to water, but not normally involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tidepool and marine life study, hunting, sightseeing, or aesthetic enjoyment in conjunction with the above activities.
- Warm Freshwater Habitat (WARM) – Uses of water that support warm water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates.
- Cold Freshwater Habitat (COLD) – Includes uses of water that support cold water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates.
- Wildlife Habitat (WILD) – Uses of water that support terrestrial ecosystems including, but not limited to, preservation and enhancement of terrestrial habitats, vegetation, wildlife (e.g., mammals, birds, reptiles, amphibians, invertebrates), or wildlife water and food sources.
- Hydropower Generation (POW) – Uses of water for hydropower generation.
- Rare, Threatened or Endangered Species (RARE) – Waters that support the habitats necessary for the survival and successful maintenance of plant or animal species designated under state or federal law as rare, threatened, or endangered.

Local

City of Palm Desert Municipal Code

Chapter 24.20, Stormwater Management and Discharge Control. The purpose of this chapter is to ensure the future health, safety, and general welfare of city citizens by:

- Regulating non-stormwater discharges to the municipal separate storm drain.
- Controlling the discharge to municipal separate storm drains from spills, dumping, or disposal of materials other than stormwater.
- Reducing pollutants in stormwater discharges to the maximum extent practicable.

The intent of this chapter is to protect and enhance the water quality of city watercourses, water bodies, groundwater, and wetlands in a manner pursuant to and consistent with the Clean Water Act.

Title 28, Flood Damage Prevention. Title 28 seeks to promote the public health, safety, and general welfare and to minimize public and private losses due to flood conditions in specific areas. This title requires an applicant to obtain a development permit before any construction or other development begins within any area of special flood hazard.

Comprehensive Storm Drain Master Plan

The Palm Desert Comprehensive Storm Drain Master Plan, prepared in March 1993, is a strategy for the construction, maintenance and funding of storm drainage improvements in the city. It has been implemented by the Master Drainage Plan ordinance and serves as the operational tool for technical guidelines and developer requirements regarding site retention or installation specifics.

Integrated Regional Water Management Plan

The Coachella Valley Regional Management Group is a collaborative effort led by the five water purveyors in the Coachella Valley to develop an Integrated Regional Water Management Plan to address the valley's water resources planning needs.

Impacts and Mitigation Measures

Analysis Approach

The analysis of impacts is based on the likely consequences of adoption and implementation of the General Plan update compared to existing conditions. The following analysis of impacts on hydrology and water quality is qualitative and based on available hydrologic and water quality information for the Planning Area along with a review of regional information. The analysis assumes that all future and existing development in the Planning Area complies with applicable laws, regulations, and plans. An analysis of cumulative impacts uses qualitative information for the Planning Area and the Whitewater River (Indio) subbasin of the Coachella Valley Groundwater Basin.

Draft General Plan Update Policies and Implementation Actions

General Plan update policies and implementation actions that reduce potential hydrology and water quality impacts include the following.

Policies

Public Utilities & Services Element

- **Policy 1.1: Stormwater infrastructure for new development.** Require development projects pay for their share of new stormwater infrastructure or improvements necessitated by that development (regional shallow groundwater).
- **Policy 1.2: On-site stormwater retention and infiltration.** Whenever possible, stormwater shall be infiltrated, evapotranspired, reused or treated on-site in other ways that improve stormwater quality and reduce flows into the storm drain system.
- **Policy 1.3: Groundwater infiltration.** Encourage the use of above-ground and natural stormwater facilities in new development and redevelopment, such as vegetated swales and permeable paving.
- **Policy 1.4: Stormwater re-use and recycling.** Encourage innovative ways of capturing and reusing stormwater for non-drinking purposes to reduce the use of potable drinking water.
- **Policy 1.5: Recycled water.** Work with the CVWD to encourage existing golf courses to connect to its recycled water system.
- **Policy 1.6: Collaborative stormwater management.** Encourage collaborative, integrated stormwater management between multiple property owners and sites.
- **Policy 1.7: Low impact development.** Require the use of low-impact development strategies to minimize urban run-off, increase site infiltration, manage stormwater and recharge groundwater supplies.
- **Policy 1.8: Green infrastructure in public rights-of-way.** Encourage green streets with in-street bio-retention and other forms of stormwater retention and infiltration in streets and public rights-of-way.
- **Policy 1.9: Regional and local collaboration.** Collaborate with Thousand Palms, Rancho Mirage, Cahuilla Hills, Bermuda Dunes, and agencies in the watershed to reduce and remove contaminants from stormwater runoff.
- **Policy 1.10: Stormwater in urban context.** Development projects shall incorporate stormwater management into landscaping, except in downtown designations where catch basins shall be prohibited.
- **Policy 1.11: Water quality detention basins.** Require water detention basins to be aesthetically pleasing and to serve recreational purposes, such as in the form of a mini park. Detention basins designed for active uses are intended to supplement park and open space and should not be counted towards a developer's minimum park requirements, unless otherwise determined by the Planning Commission or City Council.
- **Policy 1.12: Retention basins.** Encourage storm water retention basins, especially in the City Center Area, to be underground in future development so as to achieve the most efficient use of land and compact development and promote the urban character goals of the General Plan.

- **Policy 1.13: Soil erosion.** Require the prevention of water-born soil erosion from sites, especially those undergoing grading and mining activities.

Safety Element

- **Policy 1.1: Hazards Information.** Establish and maintain a database containing maps and other information that identifies and describes the community's hazards.
- **Policy 1.2: Local Hazard Mitigation Plan.** Maintain and regularly update the City's Local Hazard Mitigation Plan (LHMP) as an integrated component of the General Plan, in coordination with Riverside County and other participating jurisdictions, to maintain eligibility for maximum grant funding.
- **Policy 1.3: Hazards Education.** Consult with agencies and partners to provide public education materials on safe locations and evacuation routes in case of emergency or hazardous event.
- **Policy 1.4: Critical Facilities.** Prepare existing critical facilities for resilience to hazards and develop new facilities outside of hazard-prone areas.
- **Policy 1.5: Emergency Plans and Processes.** Consult with the Coachella Valley Emergency Managers Association and CVAG to maintain and update the City's Emergency Operations Plan, and maintain disaster preparedness plans for evacuation and supply routes, communications networks, and critical facilities' capabilities.
- **Policy 1.6: Utility Reliability.** Coordinate with providers and agencies including the CVWD and Southern California Edison for access to reliable utilities and water supply to minimize potential impacts of hazards and emergencies to pipelines and infrastructure.
- **Policy 3.1: Flood Risk in New Development.** Require all new development to minimize flood risk with siting and design measures, such as grading that prevents adverse drainage impacts to adjacent properties, on-site retention of runoff, and minimization of structures located in floodplains.
- **Policy 3.2: Flood Infrastructure.** Require new development to contribute to funding regional flood control infrastructure improvements.
- **Policy 3.3: Stormwater Management.** Monitor, update, and enforce stormwater management plans in coordination with regional agencies, utilities, and other jurisdictions.
- **Policy 3.4: Open Space for Flood Control.** Prioritize open space or uses that serve recreational purposes as a preferred land use within areas of high flood risk.
- **Policy 3.5: Dam Failure.** Disseminate information on dam inundation areas subject to potential risks of flooding in the event of dam failure or seismic hazard, including preparation for seiche events, which can be caused by seismic events and consist of the occurrence of a standing wave that oscillates in a body of water, such as a dam.

Environmental Resources Element

- **Policy 1.1: Water conservation technologies.** Promote indoor and outdoor water conservation and reuse practices including water recycling, grey water re-use and rainwater harvesting.
- **Policy 1.2: Landscape design.** Encourage the reduction of landscaping water consumption through plant selection and irrigation technology.
- **Policy 1.3: Conservation performance targeted to new construction.** Incentivize new construction to exceed the state’s Green Building Code for water conservation by an additional 10 percent.
- **Policy 1.4: Greywater.** Allow the use of greywater and establish criteria and standards to permit its safe and effective use (also known as on-site water recycling).
- **Policy 1.5: Waterways as amenities.** When considering development applications and infrastructure improvements, treat waterways as amenities, not hazards, and encourage designs that embrace the waterways.

Implementation Actions

Public Utilities & Services Element

- **Action 2.46.** Coordinate with FEMA, state agencies, Riverside County, and other jurisdictions to understand potential changes to the extent or severity of flood hazards based on the impacts of a changing climate.
- **Action 2.47.** Prohibit development in the 100-year floodplain, unless adequate flood mitigation is provided on-site as well as downstream of the project area.
- **Action 2.48.** Monitor and update the floodplain management ordinance and continue participation in the National Flood Insurance Program.
- **Action 2.49.** Continue to maintain and enforce regulations and guidelines for the development and maintenance of project-specific on-site retention/detention basins to control stormwater and implement the NPDES program, including measures to enhance groundwater recharge, complement regional flood control facilities, and address applicable community design policies.
- **Action 2.50.** Identify opportunities for creative public projects that provide “proof of concept” for innovative dual-use and stormwater management while also addressing risks to floods.

Safety Element

- **Action 2.38.** Update the City’s public GIS database with information on the extent and potential impact of seismic, geotechnical, fire, and flood hazards occurring in the city and the SOI. All future developments will be required to submit their data for incorporation into this database.
- **Action 4.16.** Update and enforce Title 28 of the Palm Desert Municipal Code to integrate and account for FEMA flood maps, as necessary.

Environmental Resources Element

- **Action 3.1.** Support and expand programs to educate and incentivize the community on water conservation practices for landscaping

Thresholds of Significance

For the purposes of this EIR, impacts on hydrology and water quality are considered significant if adoption and implementation of the General Plan update would:

Threshold	Determination
1. Violate water quality standards and waste discharge requirements	Less Than Significant
2. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level	Less Than Significant
3. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial on- or off-site erosion or siltation	Less Than Significant
4. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in on- or off-site flooding	Less Than Significant
5. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff	Less Than Significant
6. Substantially degrade water quality	Less Than Significant
7. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood delineation map	Less Than Significant
8. Place within a 100-year flood hazard area structures that would impede or redirect flood flows	Less Than Significant
9. 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	Less Than Significant
10. Inundation by seiche, tsunami, or mudflow	Less Than Significant
11. Cumulative effects	Less Than Cumulatively Considerable

Impacts and Mitigation Measures

IMPACT **Violate Water Quality Standards and Waste Discharge Requirements.**

4.9-1 *Adoption and implementation of the General Plan update would potentially increase the amount of impervious surface in the Planning Area, thereby increasing the total volume and peak discharge rate of stormwater runoff and associated pollutants. Construction activities resulting from implementation of the General Plan update could also increase the amount of sediments and pollutants in stormwater runoff. However, implementation of the General Plan update policies and implementation actions and enforcement of existing grading, erosion, and flood control regulations would result in a **less than significant** impact.*

Urban runoff (both dry and wet weather) discharges into storm drains and, in most cases, flows directly to creeks, rivers, lakes, and the ocean. Polluted runoff can have harmful effects on drinking water, recreational water, and wildlife. Urban runoff pollution includes a wide array of environmental, chemical, and biological compounds from both point and nonpoint sources. In the urban environment, stormwater characteristics depend on site conditions (e.g., land use, impervious cover, pollution prevention, types and amounts of best management practices), rain events (duration, amount of rainfall, intensity, and time between events), soil type and particle sizes, multiple chemical conditions, the amount of vehicular traffic, and atmospheric deposition. Major pollutants typically found in runoff from urban areas include sediments, nutrients, oxygen-demanding substances, heavy metals, petroleum hydrocarbons, pathogens, and bacteria.

Urban runoff can be divided into two categories: dry and wet weather urban runoff.

- Dry weather urban runoff occurs when there is no precipitation-generated runoff. Typical sources include landscape irrigation runoff, driveway and sidewalk washing, noncommercial vehicle washing, groundwater seepage, fire flow, potable water line operations and maintenance discharges, and permitted or illegal non-stormwater discharges.
- Wet weather urban runoff refers collectively to nonpoint source discharges that result from precipitation events. Wet weather runoff includes stormwater runoff. Stormwater discharges are generated by runoff from land and impervious areas such as building rooftops and paved streets and parking lots.

Wet and dry weather runoff typically contains similar pollutants of concern. However, except for the first flush concentrations following a long period between rainfall, the concentration levels found in wet weather flows are typically lower than levels found in dry weather flows because the larger wet weather flows dilute the amount of pollution in runoff waters. Most urban stormwater discharges are considered nonpoint sources and are regulated by an NPDES Municipal General Permit or Construction General Permit.

A net effect of development can be to increase pollutant export over naturally occurring conditions. The impact of the higher export can be on the adjacent streams

and also on the downstream receiving waters. However, an important consideration in evaluating stormwater quality from a project is to assess whether it impairs the beneficial use to the receiving waters. Receiving waters can assimilate a limited quantity of various constituent elements; however, there are thresholds beyond which the measured amount becomes a pollutant and results in an undesirable impact. For this evaluation, impacts to stormwater quality would be considered significant if the project did not attempt to address stormwater pollution to the maximum extent practicable.

Short-Term Construction

Construction associated with development under the General Plan update would consist of grading and vegetation removal activities that could increase soil erosion rates on the areas proposed for development. During construction activities, erosion potential and the possibility of water quality impacts are always present and occur when protective vegetative cover is removed and soils are disturbed. Construction activities can result in sediment runoff rates that greatly exceed natural erosion rates of undisturbed lands, causing siltation and impairment of receiving waters. In addition to sediment, stormwater flowing over a construction site can carry various pollutants such as nutrients, bacteria and viruses, oil and grease, heavy metals, organics, pesticides, gross pollutants, and miscellaneous waste into receiving waters. These pollutants can originate from soil disturbances, construction equipment, building materials, and workers.

Potential grading for development associated with the updated General Plan, along with other construction activities, may introduce sediments and other contaminants typically associated with construction into stormwater runoff, potentially resulting in the degradation of downstream surface water and groundwater. The General Plan update has the potential to result in the generation of new dry weather runoff containing these pollutants and to increase the concentration and/or total load of the pollutants in wet weather stormwater runoff. Dry weather urban runoff in the storm drain system occurs when there is no measurable precipitation. It originates from human activities, including car washing, landscape irrigation, street washing, dewatering during construction activities, and natural groundwater seepage that discharges to the storm drain system. Dry weather urban runoff can contain high levels of pollutants, as the water typically flows over paved or highly developed surfaces.

The SWRCB is responsible for implementing the Clean Water Act and has issued a Statewide General Permit (Order No. 2009-0009-DWQ as amended by 2010-0014-DWQ) for construction activities in the state (see the Regulatory Setting subsection above). In Palm Desert, the Construction General Permit (CGP) is implemented and enforced by the Colorado River Basin RWQCB. In accordance with the requirements of the CGP, prior to construction of any project, a risk assessment must be prepared and submitted to the Colorado River Basin RWQCB to determine the project's risk level and associated water quality control requirements. These requirements will, at a minimum, include the preparation and implementation of a stormwater pollution prevention plan identifying specific BMPs to be implemented and maintained in order to comply with the applicable narrative effluent standards.

The best management practices that must be implemented as part of a SWPPP can be grouped into two major categories: (1) erosion and sediment control BMPs and

(2) non-stormwater management and materials management BMPs. Erosion and sediment control BMPs fall into four main subcategories:

- Erosion controls
- Sediment controls
- Wind erosion controls
- Tracking controls

Erosion controls include practices to stabilize soil, to protect the soil in its existing location, and to prevent soil particles from migrating. Examples of erosion control BMPs are preserving existing vegetation, mulching, and hydroseeding. Sediment controls are practices to collect soil particles after they have migrated, but before the sediment leaves the site. Examples of sediment control BMPs are street sweeping, fiber rolls, silt fencing, gravel bags, sand bags, storm drain inlet protection, sediment traps, and detention basins. Wind erosion controls prevent soil particles from leaving the site in the air. Examples of wind erosion control BMPs include applying water or other dust suppressants to exposed soils on the site. Tracking controls prevent sediment from being tracked off site via vehicles leaving the site to the extent practicable. A stabilized construction entrance not only limits the access points to the construction site but also functions to partially remove sediment from vehicles prior to leaving the site.

Non-stormwater management and material management controls reduce non-sediment-related pollutants from potentially leaving the construction site to the extent practicable. The Construction General Permit prohibits the discharge of materials other than stormwater and authorized non-stormwater discharges (such as irrigation and pipe flushing and testing). Non-stormwater BMPs tend to be management practices with the purpose of preventing stormwater from coming into contact with potential pollutants. Examples of non-stormwater BMPs include preventing illicit discharges and implementing good practices for vehicle and equipment maintenance, cleaning, and fueling operations, such as using drip pans under vehicles. Waste and materials management BMPs include implementing practices and procedures to prevent pollution from materials used on construction sites. Examples of materials management BMPs include:

- Good housekeeping activities such as storing of materials covered and elevated off the ground, in a central location
- Securely locating portable toilets away from the storm drainage system and performing routine maintenance
- Providing a central location for concrete washout and performing routine maintenance
- Providing several dumpsters and trash cans throughout the construction site for litter/floatable management
- Covering and/or containing stockpiled materials and overall good housekeeping on the site

The Construction General Permit also requires that construction sites be inspected before and after storm events and every 24 hours during extended storm events. The purpose of the inspections is to identify maintenance requirements for the BMPs and to determine the effectiveness of the BMPs that are being implemented. The SWPPP is

a “living document” and as such can be modified as construction activities progress. Additional requirements include compliance with post-construction standards focusing on low impact development (LID) and preparation of rain event action plans.

The SWRCB has also issued a Statewide General Permit (Order No. 2009-0009-DWQ as amended by 2010-0014-DWQ) for dewatering and other low-threat discharges to surface waters in the state. Should construction of a proposed project require dewatering, the project applicant would be required to submit a Notice of Intent, as well as a BMP Plan, to comply with the general permit. The BMP Plan would include disposal practices to ensure compliance with the general permit, such as the use of sediment basins or traps, dewatering tanks, or gravity or pressurized bag filters. Monitoring and reporting would also be performed to ensure compliance with the permit.

Project Operation

Runoff from urban land use typically contains oils, grease, fuel, antifreeze, and byproducts of combustion (such as lead, cadmium, nickel, and other metals), as well as nutrients from fertilizers, sediment, pesticides, herbicides, and other pollutants. Also, sizable quantities of animal waste from pets contribute bacterial pollutants into surface and source waters. Precipitation during the early portion of the wet season displaces these pollutants into stormwater runoff, resulting in high pollutant concentrations in the initial wet weather runoff. This initial runoff, containing peak pollutant levels, is referred to as the “first flush” of storm events. It is estimated that during the rainy season, the first flush of heavy metals and hydrocarbons would occur during the first inches of seasonal rainfall.

The amount and type of runoff generated by land uses in the city with implementation of the updated General Plan may be greater than that under existing conditions due to increases in impervious surfaces. An increase in impervious surface area would substantially increase runoff potentially containing urban pollutants and first flush roadway contaminants such as heavy metals, oil and grease, and nutrients (i.e., nitrates and phosphates). Additionally, runoff associated with landscaped areas typically contributes pollutants from fertilizers, herbicides, and pesticides. Expected pollutants for the proposed project include sediment/turbidity, nutrients, organic compounds (petroleum hydrocarbons), trash and debris, oxygen demanding substances, bacteria and viruses, oil and grease, pesticides, and metals. These constituents may result in water quality impacts to on- and off-site drainage flows and to downstream area waterways.

As identified above, water in the Planning Area drains to the Salton Sea watershed, to the receiving waters in **Table 4.9-3**. However, as discussed previously, there are no impaired water bodies within the Planning Area.

To reduce urban runoff impacts associated with potential pollutants, the updated General Plan contains policies with requirements that address surface water quality impacts. For instance, Public Utilities & Services Element Policy 1.2 requires on-site stormwater retention and infiltration to improve stormwater quality and reduce flows into the storm drain system. Additionally, Policy 1.1 requires development projects to pay for their fair share of new stormwater infrastructure or improvements necessitated by that development (regional shallow groundwater). Policy 1.4 encourages the reuse and recycling of stormwater for non-drinking purposes to reduce the use of potable drinking water. Further, Policy 1.7 requires the use of low-

impact development strategies to minimize urban runoff, increase site infiltration, manage stormwater and recharge groundwater supplies. Policy 1.10 requires developers to incorporate stormwater management into landscaping.

City of Palm Desert Municipal Code Chapter 24.20 establishes requirements for stormwater and non-stormwater quality discharge and control by prohibiting discharges of pollutants or waters containing pollutants that cause or contribute to a violation of applicable water quality standards. In addition, a project-specific water quality management plan (WQMP), in compliance with the Areawide Urban Runoff Management Program, would be required. Compliance with Municipal Code Chapter 24.20 and adherence to policies contained in the General Plan update and to State General Construction Activity Stormwater Permit requirements would result in impacts to water quality that are **less than significant**.

Mitigation Measures

None required.

IMPACT 4.9-2 Deplete Groundwater Supplies or Interfere with Groundwater Recharge. *Adoption and implementation of the General Plan update would potentially increase the amount of impervious surface in the planning area, thereby decreasing the area available to provide groundwater recharge. However, the new areas of impervious surface would be minimal, existing areas of open space would be preserved, and implementation of General Plan update policies and implementation actions would require an increase permeable area in new development, redevelopment, and infrastructure investments, resulting in a **less than significant** impact.*

Palm Desert is in the service area of the Coachella Valley Water District (CVWD), which delivers a total potable water supply of 104,309 AFY and projected to deliver a total of 151,000 AFY in 2020. Water demand is met through local groundwater supplies. CVWD does not rely on a wholesale agency for its urban water supply.

According to CVWD's (2012) Urban Water Management Plan (UWMP), the Whitewater River (Indio) subbasin has a total storage capacity of 28,800,000 acre-feet. However, the amount of water in the basin has decreased over the years due to pumping to serve urban, rural, and agricultural development in the Coachella Valley. The groundwater basin is not adjudicated; rather, it is jointly managed by CVWD and the Dessert Water Agency (DWA) under the terms of the 1976 Water Management Agreement. DWA and CVWD jointly operate a groundwater replenishment program whereby groundwater pumpers (other than minimal pumpers) pay a per-acre-foot charge that is used to pay the cost of importing water and recharging the aquifer.

According to the California Department of Water Resources (2014), close to 90 percent of the groundwater used in California is extracted from only about 126 of the 515 alluvial groundwater basins. Some communities throughout the state rely solely on groundwater sources, some rely solely on surface water, and some rely on both. Based on average annual data for years 2005 to 2010, groundwater use was near 16.5 million acre-feet and accounted for 39 percent of the total water supply in California (DWR 2014). In response to the current drought and as required by Governor's January 17, 2014, Emergency Drought Proclamation (Order Action 11), the DWR prepared a groundwater report to identify groundwater basins with potential water shortages and gaps in groundwater monitoring. According to the report, since spring

2008, groundwater levels have experienced all-time historical lows (for the period of record) in most areas of the state and especially in the northern portion of the San Francisco Bay Area Hydrologic Region, the southern San Joaquin Valley, and the South Lahontan and South Coast hydrologic regions. Groundwater levels typically decline during drought, and when groundwater levels decline below the level of the pump in a water well, the pump must be lowered. If groundwater levels decline to the point where the pump cannot be lowered, the yield is too small, or the well goes dry, a well owner may need to deepen the existing well or potentially drill a new well (DWR 2014). The DWR analyzed available well completion reports for water wells that were deepened from 2010 through early 2014. The analysis identified the location of each well and determined whether the well is in a defined groundwater basin or in an area of fractured bedrock. The analysis also determined whether the well is for domestic use, irrigation, or public water supply.

Additionally, of the 515 alluvial groundwater basins, 169 are fully or partially monitored under the California Statewide Groundwater Elevation (CASGEM) Program. The CASGEM basin prioritization process was developed to assess and rank the alluvial groundwater basins throughout the state. The basin prioritization process is based on an evaluation of the eight required data components specified in the California Water Code. As of December 2013, the draft basin prioritization results ranked 46 of the 515 alluvial groundwater basins as high priority, 80 as medium priority, 35 as low priority, and 354 as very low priority. The CASGEM basin prioritization program identified that a good portion of South Coast hydrologic region is ranked as high priority or medium priority. The DWR is working cooperatively with monitoring entities to improve the existing statewide CASGEM monitoring network and reduce data gaps.

Development that could result from implementation of the updated General Plan may create areas of new impervious surface that would no longer serve as locations for infiltration of water to recharge the underlying Whitewater River (Indio) subbasin of the Coachella Valley Groundwater Basin.

However, multiple General Plan update policies and implementation actions would maintain and enhance groundwater recharge occurring in the Planning Area. Public Utilities & Services Element Policy 1.3 encourages the use of aboveground and natural stormwater facilities in new development and redevelopment, such as vegetated swales and permeable paving. Policy 1.7 requires the use of low-impact development strategies to minimize urban runoff, increase site infiltration, manage stormwater, and recharge groundwater supplies. Action 2.49 continues to maintain and enforce regulations and guidelines for the development and maintenance of project-specific on-site retention/detention basins to control stormwater and implement the NPDES program, including measures to enhance groundwater recharge, complement regional flood control facilities, and address applicable community design policies.

Because of the minimal amount of new impervious surfaces that would result with implementation of the General Plan update, the rate of infiltration needed to support groundwater recharge would not be substantially decreased. Additionally, implementation of General Plan update policies and actions would maintain and protect groundwater recharge resources. Therefore, this impact would be **less than significant**.

Mitigation Measures

None required.

IMPACT 4.9-3 Substantially Alter the Existing Drainage Pattern of the Site or Area so as to Result in Substantial On- or Off-Site Erosion or Siltation.

*Adoption and implementation of the General Plan update could increase the amount of impervious surface in the Planning Area, thereby increasing the total volume and peak discharge rate of stormwater runoff and the potential for erosion and sedimentation. However, implementation of General Plan update policies and implementation actions and enforcement of existing grading, erosion, and flood control regulations would result in a **less than significant** impact.*

Proposed project land use policies are based on long-established existing land use patterns and promote the redevelopment of existing urbanized areas. Multiple General Plan policies would increase stormwater infiltration, manage stormwater in a more comprehensive way, and reduce erosion and sedimentation in the planning area. Public Utilities & Services Element Policy 1.1 requires development projects to pay for their share of new stormwater infrastructure or improvements necessitated by that development. Policy 1.2 recommends that whenever possible, stormwater shall be infiltrated, evapotranspired, reused, or treated on-site in other ways that improve stormwater quality and reduce flows into the storm drain system. Furthermore, Policy 1.3 encourages the use of aboveground and natural stormwater facilities in new development and redevelopment, such as vegetated swales and permeable paving. Policy 1.7 requires the use of low-impact development strategies to minimize urban runoff, increase site infiltration, manage stormwater, and recharge groundwater supplies. Additionally, Policy 1.13 requires the prevention of water-borne soil erosion from sites, especially those undergoing grading and mining activities. Safety Element Policy 3.3 requires the monitoring, updating, and enforcing of stormwater management plans in coordination with regional agencies, utilities, and other jurisdictions.

In addition to the policies listed above, the General Plan update contains implementation actions intended to mitigate erosion and sedimentation impacts. Action 2.49 continues to maintain and enforce regulations and guidelines for the development and maintenance of project-specific on-site retention/ detention basins to control stormwater and implement the NPDES program, including measures to enhance groundwater recharge, complement regional flood control facilities, and address applicable community design policies.

Existing requirements and regulations, as well as the General Plan update policies and implementation actions, would reduce the amount of surface water runoff in the Planning Area. Compliance with these regulations and the minimal amount of new surface runoff that would result from implementation of the General Plan update would minimize the potential for existing drainage patterns to be altered in a manner that could cause increased erosion or sedimentation. Therefore, this impact would be **less than significant**.

Mitigation Measures

None required.

IMPACT 4.9-4 Substantially Alter the Existing Drainage Pattern of the Site or Area so as to Result in On- or Off-Site Flooding. *Adoption and implementation of General Plan update could increase the amount of impervious surface in the planning area, thereby increasing the total volume and peak discharge rate of stormwater runoff and the potential for flooding. However, implementation of General Plan update policies and implementation actions and enforcement of existing grading, erosion, and flood control regulations would result in a less than significant impact.*

The drainage systems and patterns of the area are not anticipated to be substantially altered because of the existing built-out conditions of the city, plans for new development to focus on infill locations, and programs to require on-site retention and infiltration of stormwater. Thus, very small amounts of new impervious surface would result with implementation of the updated General Plan, and the minimal amount of newly generated surface runoff would not be of the volume or magnitude necessary to alter drainage patterns of the area. Additionally, the minimal amounts of new surface runoff would not substantially add to an increased risk of flooding.

Existing requirements and regulations, as well as General Plan update policies and implementation actions, would reduce the amount of surface water runoff. Multiple General Plan update policies would increase stormwater infiltration, manage stormwater in a more comprehensive way, and reduce erosion and sedimentation in the planning area. Public Utilities & Services Element Policy 1.1 requires development projects to pay for their share of new stormwater infrastructure or improvements necessitated by that development. Policy 1.2 recommends that whenever possible, stormwater shall be infiltrated, evapotranspired, reused, or treated on-site in other ways that improve stormwater quality and reduce flows into the storm drain system. Furthermore, Policy 1.3 encourages the use of aboveground and natural stormwater facilities in new development and redevelopment, such as vegetated swales and permeable paving. Policy 1.6 encourages collaborative, integrated stormwater management between multiple party owners and sites. Additionally, Policy 1.7 requires the use of low-impact development strategies to minimize urban runoff, increase site infiltration, manage stormwater, and recharge groundwater supplies. Policy 1.10 requires that development projects incorporate stormwater management into landscaping, except in downtown designations where catch basins shall be prohibited. Safety Element Policy 3.3 requires the monitoring, updating, and enforcing of stormwater management plans in coordination with regional agencies, utilities, and other jurisdictions.

In addition to the policies listed above, the General Plan update contains implementation actions intended to mitigate erosion and sedimentation impacts. Action 2.49 continues to maintain and enforce regulations and guidelines for the development and maintenance of project-specific on-site retention/ detention basins to control stormwater and implement the NPDES program, including measures to enhance groundwater recharge, complement regional flood control facilities, and address applicable community design policies.

Compliance with these regulations and the minimal amount of new surface runoff that would result from implementation of General Plan update would minimize the potential for existing drainage patterns to be altered in a manner that could cause

increased on- or off-site flooding. Therefore, this impact would be **less than significant**.

Mitigation Measures

None required.

IMPACT 4.9-5 **Create or Contribute Runoff Water Exceeding the Capacity of Existing or Planned Stormwater Drainage Systems or Providing Substantial Additional Sources of Polluted Runoff.** *Adoption and implementation of General Plan update would increase the amount of impervious surface in the Planning Area, thereby increasing the total volume of stormwater runoff that could exceed the capacity of stormwater drainage systems or create substantial additional sources of polluted runoff. However, implementation of General Plan update policies and implementation actions and enforcement of existing grading, erosion, and flood control regulations would result in a **less than significant** impact.*

A minimal amount of new runoff would be created by implementation of the General Plan update because most new development would consist of infill or redevelopment in areas currently urbanized with impervious surfaces. Site redevelopment may provide opportunities to create new permeable surfaces through new landscaping and use of porous pavements, potentially reducing the amount of runoff and associated pollutants. Because the volume of new runoff generated by implementation of the General Plan update would be minimal, it would not likely exceed the capacity of existing or planned stormwater drainage systems.

Construction activities may result from development associated with implementation of the General Plan update and generate the potential for increased pollutants in runoff or add substantial sources of polluted runoff. However, regulatory requirements would serve to reduce the amount of stormwater runoff and pollutants generated by new development. Specifically, projects would be required to comply with NPDES requirements. Mandatory compliance would control construction activities and minimize, to the greatest extent practicable, the degradation of water quality. These requirements would include BMPs appropriate to reduce the overall discharge volume and amount of pollutants in stormwater.

Additionally, multiple General Plan update policies would minimize runoff and protect water quality. Public Utilities & Services Element Policy 1.1 requires development projects pay for their share of new stormwater infrastructure or improvements necessitated by that development (regional shallow groundwater). Policy 1.2 requires that whenever possible, stormwater shall be infiltrated, evapotranspired, reused, or treated on-site in other ways that improve stormwater quality and reduce flows into the storm drain system. Policy 1.3 encourages the use of aboveground and natural stormwater facilities in new development and redevelopment, such as vegetated swales and permeable paving. Additionally, Policy 1.4 encourages innovative ways of capturing and reusing stormwater for non-drinking purposes to reduce the use of potable drinking water. Policy 1.6 encourages collaborative, integrated stormwater management between multiple property owners and sites. Policy 1.7 requires the use of low-impact development strategies to minimize urban runoff, increase site infiltration, manage stormwater, and recharge groundwater supplies. Furthermore, Policy 1.10 requires development projects to incorporate stormwater management

into landscaping, except in downtown designations where catch basins shall be prohibited. Policy 1.12 encourages stormwater retention basins, especially in the City Center area, to be underground in future development so as to achieve the most efficient use of land and compact development and promote the urban character goals of the General Plan. In the Safety Element, Policy 3.3 requires the monitoring, updating, and enforcing of stormwater management plans in coordination with regional agencies, utilities, and other jurisdictions. Action 2.49 requires the continuation of maintaining and enforcing regulations and guidelines for the development and maintenance of project-specific on-site retention/detention basins to control stormwater and implement the NPDES program, including measures to enhance groundwater recharge, complement regional flood control facilities, and address applicable community design policies. Action 2.50 requires identification opportunities for creative public projects that provide “proof of concept” for innovative dual-use and stormwater management while also addressing risks to floods.

Because only small areas of new impervious surface would result from development associated with implementation of the plan, the increased volumes or rates of discharge and associated pollutants in runoff would be minimal. Additionally, adherence to applicable water quality regulations and implementation of General Plan Update policies and implementation actions would minimize the potential to create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Therefore, this impact would be **less than significant**.

Mitigation Measures

None required.

IMPACT 4.9-6 **Substantially Degrade Water Quality.** *Adoption and implementation of the General Plan update could result in development that would increase pollutants and cause degradation of water quality during construction activities or long-term operation. However, implementation of General Plan update policies and implementation actions and enforcement of existing grading, erosion, and flood control regulations would result in a **less than significant** impact.*

Implementation of the General Plan update has the potential to result in development that could increase pollutants during both construction and operation. However, development is required to comply with multiple regulations and legal requirements regarding the protection of water quality, and best management practices must be implemented to ensure water quality is not degraded during construction or long-term operation. As described in the Regulatory Setting subsection above, multiple water quality protection laws, regulations, and permitting requirements serve to minimize the potential to degrade water quality.

Additionally, multiple General Plan update policies and implementation actions reduce the potential to degrade water quality and require steps to improve water quality. Public Utilities & Services Element Policy 1.2 states that whenever possible, stormwater shall be infiltrated, evapotranspired, reused, or treated on-site in other ways that improve stormwater quality and reduce flows into the storm drain system. Policy 1.7 requires the use of low-impact development strategies to minimize urban runoff, increase site infiltration, manage stormwater and recharge groundwater

supplies. Additionally, Policy 1.9 requires collaboration with Thousand Palms, Rancho Mirage, Cahuilla Hills, Bermuda Dunes, and agencies in the watershed to reduce and remove contaminants from stormwater runoff. Policy 1.11 requires water detention basins to be aesthetically pleasing and to serve recreational purposes, such as in the form of a mini-park.

Adherence to required water quality control permits and requirements and implementation of the General Plan update policies and implementation actions would reduce the potential for future development to degrade water quality. Therefore, this impact would be **less than significant**.

Mitigation Measures

None required.

IMPACT 4.9-7 **Place Housing within a 100-Year Flood Hazard Area.** *Adoption and implementation of General Plan update would not place housing within a 100-year flood hazard area. Additionally, the General Plan update includes policies and implementation actions to decrease exposure to and impact from flood hazards throughout the city. Therefore, this impact would be **less than significant**.*

Flooding may occur when streams and channels overflow as a result of excessive precipitation, storm runoff, or inadequate, undersized, or unmaintained storm drainage infrastructure. As described previously, FEMA mapping delineates areas located in flood hazard zones. New development in the watershed could potentially result in housing located in 100-year flood hazard areas, or new or redeveloped housing may continue to be allowed in flood hazard areas in other jurisdictions. As shown in Figure 9.3 (FEMA Flood Zones), 100-year flood zones are found along the Whitewater Channel, at the Ironwood Country Club and into and through the Dead Indian Creek and Canyons at Bighorn, and the very southeastern portion of the City. These locations are either already developed as golf courses/country clubs or are zoned open space.

However, all future projects, regardless of jurisdiction, would be required to comply with regulatory requirements related to floodplain development. FEMA has established the design standard for flood protection in areas covered by Flood Insurance Rate Maps, with the minimum level of flood protection for new development determined to be within a 100-year flood hazard area. The California Building Code also contains requirements for constructing structures in flood hazard zones. Required compliance with these regulations and building codes would minimize risk due to the placement of housing in flood hazard zones, thereby reducing the potential impact.

Additionally, multiple General Plan update policies and implementation actions would minimize flooding potential and reduce hazards associated with flooding, and future development would be required to comply with flood hazard development regulations and requirements. For example, Public Utilities & Services Element Action 2.47 prohibits development in the 100-year floodplain, unless adequate flood mitigation is provided on-site as well as downstream of the project area.

Therefore, the General Plan update's contribution to impacts related to the placement of housing in flood hazard areas would not be considerable, and the impact would be **less than significant**.

Mitigation Measures

None required.

IMPACT 4.9-8 **Place within a 100-Year Flood Hazard Area Structures That Would Impede or Redirect Flood Flows.** *Adoption and implementation of the General Plan update could allow development or expansion of facilities to support coastal access in the 100-year flood hazard area. However, implementation of General Plan update policies and implementation actions and adherence to development regulations specific to flood hazard areas would result in a **less than significant** impact.*

As described in the TBR (**Appendix 4.0**, Figure 9-3), most of the portion of the city and SOI north of Interstate 10 is in a 100- or 500-year flood zone. The Palm Valley Stormwater Channel and the Whitewater River are in a 100-year flood zone. In addition, a small portion of the city and SOI near the Palm Valley Stormwater Channel is in a 500-year flood zone.

General Plan update policies and implementation actions would minimize flooding potential and hazards. Safety Element Policy 1.2 requires maintaining and regularly updating the City’s Local Hazard Mitigation Plan as an integrated component of the General Plan, in coordination with Riverside County and other participating jurisdictions, to maintain eligibility for maximum grant funding. Public Utilities & Service Element Action 2.46 requires coordination with FEMA, state agencies, Riverside County, and other jurisdictions to understand the potential changes to the extent or severity of flood hazards based on the impacts of a changing climate. Action 2.47 prohibits development in the 100-year floodplain, unless adequate flood mitigation is provided on-site as well as downstream of the project area. Furthermore, Action 2.48 monitors and updates the floodplain management ordinance and continues participation in the National Flood Insurance Program.

Because the General Plan update would continue existing land use patterns and any new development would be required to comply with flood hazard development regulations and requirements, implementation of the updated General Plan would not substantially redirect or impede flood flows due to placement of structures in flood hazard areas. Additionally, General Plan update policies and implementation actions would minimize flooding potential and flood hazards. Therefore, this impact would be **less than significant**.

Mitigation Measures

None required.

IMPACT 4.9-9 **Expose People or Structures to a Significant Risk of Loss, Injury, or Death Involving Flooding.** *Adoption and implementation of the General Plan update would not allow habitable development in locations designated as 100-year flood hazard areas, which generally precludes loss, injury, or death from flooding, including flooding from the failure of a dam or levee. Implementation of General Plan update policies and implementation actions and adherence to development regulations specific to flood hazard areas would result in a **less than significant** impact.*

New development would be required to comply with regulations and building standards for flood hazard areas. Thus, increased exposure to flood hazards that might result in significant loss, injury, or death would be minimized.

Furthermore, General Plan update policies and implementation actions would minimize flooding potential and hazards. Safety Element Policy 1.2 requires maintaining and regularly updating the City's Local Hazard Mitigation Plan as an integrated component of the General Plan, in coordination with Riverside County and other participating jurisdictions, to maintain eligibility for maximum grant funding. Additionally, Policy 1.3 requires consultation with agencies and partners to provide public education materials on safe locations and evacuation routes in case of emergency or hazardous event. Policy 1.5 requires consultation with the Coachella Valley Emergency Managers Association and the Coachella Valley Association of Governments (CVAG) to maintain and update the City's Emergency Operations Plan, and maintain disaster preparedness plans for evacuation and supply routes, communication networks, and critical facilities' capabilities. Policy 3.1 requires all new development to minimize flood risk with siting and design measures, such as grading that prevents adverse drainage impacts to adjacent properties, on-site retention of runoff, and minimization of structures located in floodplains. Additionally, Policy 3.2 requires new developments to contribute to funding regional flood control infrastructure improvements. Policy 3.3 requires the monitoring, updating, and enforcing of stormwater management plans in coordination with regional agencies, utilities, and other jurisdictions. Policy 3.4 prioritizes open space or uses that serve recreational purposes as a preferred land use within areas of high flood risk. Policy 3.5 requires the dissemination of information on dam inundation areas subject to potential risks of flooding in the event of dam failure or seismic hazard, including preparation for seiche events, which can be caused by seismic events and consist of the occurrence of a standing wave that oscillates in a body of water, such as a dam.

Public Utilities & Safety Element Action 2.46 requires coordination with FEMA, state agencies, Riverside County, and other jurisdictions to understand the potential changes to the extent or severity of flood hazards based on the impacts of a changing climate. Action 2.47 prohibits development in the 100-year floodplain, unless adequate flood mitigation is provided on-site as well as downstream of the project area. Action 2.48 monitors and updates the floodplain management ordinance and continue participation in the National Flood Insurance Program.

Adherence to development requirements and regulations in flood hazard areas throughout the watershed, and implementation of General Plan update policies and implementation actions, would reduce the potential for loss, injury, or death from flooding, including flooding from the failure of a dam or levee. The General Plan update would not result in new situations where increased loss, injury, or death from flooding would be substantial. Therefore, the updated General Plan's contribution to this impact would not be considerable, and the impact would be **less than significant**.

Mitigation Measures

None required.

IMPACT 4.9-10 **Inundation by Seiche, Tsunami, or Mudflow.** *Adoption and implementation of General Plan update would allow continued development in locations that may be subject to inundation by tsunami or mudflow. However, implementation of General Plan update policies and implementation actions would result in a **less than significant** impact.*

The northwestern portion of the city is in proximity to the Salton Sea. While there have been a number of seismic events since the formation of the Salton Sea, no significant seiches have occurred to date. However, a seiche could occur in the Salton Sea under the appropriate seismic conditions. The closest tsunami-producing body of water is the Pacific Ocean, which is located approximately 70 miles from Palm Desert. Mudflows can develop when water accumulates in the ground during periods of heavy rainfall and results in a flowing river of mud, rock, and other materials. The risk of mudflow inundation is a relatively site-specific impact and is generally dependent on the immediate development in the area and on the specific hillside. As such, the potential for inundation by seiche or mudflow is very small and the potential for inundation by tsunami is nonexistent.

The General Plan update includes policies and implementation actions to mitigate, prepare for, and respond to seiche and mudflow-related inundation. For example, Safety Element Policy 3.5 requires the dissemination of information on dam inundation areas subject to potential risks of flooding in the event of dam failure or seismic hazard, including preparation for seiche events, which can be caused by seismic events and consist of the occurrence of a standing wave that oscillates in a body of water, such as a dam. Additionally, Action 2.38 requires an update of the City's public GIS database with information on the extent and potential impact of seismic, geotechnical, fire, and flood hazards occurring in the city and the SOI. All future developments will be required to submit their data for incorporation into this database. Therefore, the General Plan update's contribution to inundation impacts from seiches, tsunamis, and mudflows would not be considerable, and the impact would be **less than significant**.

Mitigation Measures

None required.

Cumulative Impacts and Mitigation

Water quality and hydrology are not confined by jurisdictional boundaries; rather, they are dependent on the regional watershed and hydrologic conditions in surrounding areas. When analyzing cumulative impacts to water quality and hydrology, it is necessary to consider upstream and downstream areas and water bodies that could influence or be influenced by actions in the Planning Area. Thus, the watershed is the general area of influence used in analysis of cumulative impacts for this topic.

IMPACT 4.9-11 **Cumulative Effects on Hydrology and Water Quality.** *Adoption and implementation of the General Plan update in addition to potential regional growth would increase the amount of impervious surface in the watershed, alter drainage conditions, rates, volumes, and water quality, which could result in potential erosion, flooding, and water quality impacts in the overall watershed. However, with implementation of the General Plan update policies and implementation actions and compliance with existing regulations, this impact is considered **less than cumulatively considerable**.*

Implementation of the General Plan update has the potential to result in development that could create increased pollutants during both construction and operation. However, development is required to comply with multiple regulations and legal requirements regarding the protection of water quality, and best management practices must be implemented to ensure water quality is not degraded during construction or long-term operation. Additionally, multiple General Plan update policies and implementation actions reduce the potential to degrade water quality and require steps to improve water quality. Adherence to required water quality control permits and requirements and implementation of the General Plan update policies and implementation actions would reduce the potential for future development to degrade water quality. In addition, development that could result from implementation of the updated General Plan may create areas of new impervious surface that would no longer serve as locations for infiltration of water to recharge the underlying Whitewater River (Indio) subbasin of the Coachella Valley Groundwater Basin. Multiple General Plan update policies and implementation actions would maintain and enhance groundwater recharge in the Planning Area. Because of the minimal amount of new impervious surface that would result with implementation of the General Plan update, the rate of infiltration needed to support groundwater recharge would not be substantially decreased. Additionally, implementation of General Plan update policies and actions would maintain and protect groundwater recharge resources.

The land use policies in the General Plan update are based on long-established existing land use patterns and promote the redevelopment of existing urbanized areas. Multiple General Plan update policies would increase stormwater infiltration, manage stormwater in a more comprehensive way, and reduce erosion, sedimentation, and potential flooding in the Planning Area. Compliance with regulations and the General Plan update would minimize the potential for existing drainage patterns to be altered in a manner that could cause increased erosion, sedimentation, or the likelihood of flooding. Therefore, impacts associated with hydrology and water quality are **less than cumulatively considerable**.

Mitigation Measures

None required.

References

- Colorado River Basin RWQCB (Regional Water Quality Control Board). 2014. *Water Quality Control Plan (Colorado River Basin – Region 7)*.
- CVWD (Coachella Valley Water District). 2012. *Coachella Valley Water Management Plan*.
- DWR (California Department of Water Resources). 2014. *Report to the Governor’s Drought Task Force—Groundwater Basins with Potential Water Shortages and Gaps in Groundwater Monitoring*.
http://www.water.ca.gov/waterconditions/docs/Drought_Response-Groundwater_Basins_April30_Final_BC.pdf.
- FEMA (Federal Emergency Management Agency). 2014. Flood Insurance Map, Riverside County. Accessed July 16. <https://hazards.fema.gov/femaportal/NFHL/>.

4.10. Land Use and Planning

Introduction

This resource chapter evaluates the potential environmental effects related to land use and planning associated with implementation of the General Plan update. The analysis includes a review of the updated General Plan for potential land use impacts and consistency with existing regional land use plans and policies. Potential inconsistencies between the General Plan update and the Southern California Association of Governments (SCAG) Regional Comprehensive Plan (RCP), Regional Transportation Plan (RTP), Sustainable Communities Strategy (SCS), and Compass Blueprint, as well as airport land use consistency, are discussed in this chapter.

Policies and implementation actions from the updated General Plan Land Use & Community Character Element guide land use decisions and future redevelopment in a manner that provides living, working, and entertainment options in the Planning Area.

NOP Comments: No comment letters were received in response to the Notice of Preparation (NOP) addressing land use concerns.

Reference Information: Information for this resource chapter is based on numerous references, including the City of Palm Desert Technical Background Report (TBR) and other publicly available documents. The TBR prepared for the project is attached to this document as **Appendix 4.0**. The EIR, including the TBR, is also available electronically on the City's website (<http://www.cityofpalmdesert.org/our-city/general-plan-update>).

Environmental Setting

Section 10 of the TBR (**Appendix 4.0**) describes the existing land uses, General Plan designations, zoning, past and future growth trends, recent and proposed development projects, and an analysis of existing planning documents. Key findings in the TBR are summarized below.

The Planning Area (City and SOI)

The Planning Area covers 42,488 acres (69.6 square miles), of which 17,226 acres are within the corporate boundaries of the City of Palm Desert and 27,277 acres (42.6 square miles) are in the Palm Desert Sphere of Influence (SOI). The city is bordered by cities of Rancho Mirage to the west and Indian Wells to the south and east, and by the unincorporated community of Bermuda Dunes to the east.

The existing city limits generally extend southward from Interstate 10 (I-10), past Highway 111 and along Route 74 to the foot of the Santa Rosa Mountains between Monterey Avenue and Washington Street. The SOI encompasses areas to the north and south of the city, including portions of the Santa Rosa Mountains south of the city limits, Sun City Palm Desert north of I-10, and the unincorporated community of Bermuda Dunes to the east. Figure 10.1 in the TBR depicts the Palm Desert city limits, SOI, and location relative to other nearby cities or communities.

Existing Land Uses

Predominant land uses in the Palm Desert Planning Area include residential, commercial, industrial, institutional, and open space.

Low-density residential uses account for 50 percent of the land area in the city and are distributed throughout the city. Low-density residential neighborhoods include both traditional urban neighborhoods and residential planned developments surrounding golf courses and other recreational amenities. Medium- and high-density uses are generally concentrated along the city's main thoroughfares, including Highway 111, Washington Street, Country Club Drive, and in the University Park area, north of Frank Sinatra Drive.

Regional and community commercial uses in Palm Desert are primarily concentrated along Highway 111 and I-10. The city's industrial and business park uses are located along the Interstate 10 corridor and along Cook Street between Hovley Lane and the Whitewater Storm Channel. Business park land uses account for 3 percent of the land area in the Planning Area.

The majority of remaining vacant land with development potential in the city limits is limited to the University Park Planning Area, located between Interstate 10 and Frank Sinatra Drive. The development of the University Park Planning Area is likely to be influenced by future expansion of the California State University, University of California, and College of the Desert campuses, as well as nearby resort and commercial developments.

Within the SOI, the predominant land use is Open Space-Public Reserves, which accounts for 74 percent of the land area in the SOI, or approximately 20,090 acres.

The area surrounding Highway 111, the primary commercial corridor in Palm Desert, includes a mix of Regional Commercial (C-R), Community Commercial (C-C), and Office Professional (C-OP) uses. Other uses along Highway 111 include Resort/Hotel Commercial (C-R/H) and High Density Residential (R-H). The El Paseo commercial corridor and Westfield Palm Desert Shopping Center are major retail attractions in Palm Desert, drawing shoppers from across the region.

Growth Patterns

Early development patterns in Palm Desert came in the form of traditional urban neighborhoods surrounding Highway 111. Since city incorporation in 1973, development patterns in Palm Desert have shifted toward larger master planned communities, with a mix of single-family, apartment, and condominium residences.

Palm Desert's largest period of growth occurred between 1980 and 2000. During that time, the city grew from a community of 10,142 housing units to 28,021 housing units, adding nearly 18,000 housing units, or an average of 900 housing units per year, according to the TBR.

While single-family detached and attached housing units remain the predominant housing type in Palm Desert, recent shifts in housing construction patterns and preferences have resulted in larger numbers of multi-family housing units and mobile homes in the city.

Regulatory Setting

Federal, state, and local laws, regulations, and policies pertain to land use and planning, including general plans, specific plans, and zoning ordinances. They provide the regulatory framework for addressing aspects of land use planning that would be affected by adoption and implementation of the General Plan update. The regulatory

setting for land use is discussed in the TBR (**Appendix 4.0**). Key regulations used to reduce environmental impacts are summarized below.

State

California Government Code

The California Government Code (Section 65300) describes the scope and authority of local jurisdictions to prepare, adopt, and amend general plans. Communities prepare general plans to guide the long-term physical development of the jurisdiction and any land within the jurisdiction's sphere of influence. At a minimum, the California Government Code requires general plans to address land use, circulation, housing, noise, conservation, open space, and safety issues.

Additionally, California Government Code assigns equal importance to each general plan element and requires general plan elements to be internally and externally consistent, meaning that policies between elements should not be in conflict with one another, nor should subsequent plans or implementation programs, such as the zoning ordinance, capital improvement plan, or specific plans, conflict with general plan policies.

The land use portion of a general plan is expected to describe and identify the general location and extent of uses of land for housing, business, industry, open space, public facilities, and categories for public or private uses of land. The land use element is also expected to establish and define population density and building standards for each district and other territories covered by the plan.

California Building Code

The State of California provides minimum standards for building design through the California Building Code (CBC) (California Code of Regulations, Title 24). The City of Palm Desert enforces the CBC through its Municipal Code. The City Building Code incorporates the CBC, including recent changes. The CBC is based on the Uniform Building Code, which is used widely throughout the United States (generally adopted on a state-by-state or district-by-district basis) and has been modified for conditions in California. State regulations and engineering standards related to geology, soils, and seismic activity in the Uniform Building Code are reflected in the CBC requirements. Through the CBC, the State of California provides a minimum standard for building design and construction.

Regional and Local

SCAG 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy

The Southern California Association of Governments (SCAG) is responsible for developing, implementing, and funding the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) for the Southern California region, including the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. The most recent RTP/SCS was adopted in 2016 and prioritizes investment in land use, housing, and transportation solutions to improve mobility, safety, air quality, and financial challenges in the region. In Palm Desert, the lands surrounding Highway 111 and Interstate 10 were designated as high quality transit areas in the RTP/SCS.

Riverside County General Plan

The Riverside County General Plan provides a countywide vision and a set of goals and policies to manage the growth and preservation of both the natural and built environments of the unincorporated areas of Riverside County, including areas within the Palm Desert SOI though outside of the city limits. Both the City of Palm Desert and the County of Riverside have given land use designations to unincorporated areas in the Palm Desert SOI. The City's General Plan land use designations in the SOI are largely consistent with the Riverside County land use designations, with limited exceptions along Interstate 10 and in the eastern portion of Thousand Palms.

Riverside County Integrated Project

When the California Department of Finance estimated that Riverside County's population would double from 1.5 million to over 3 million residents between 2000 and 2020, county leaders embarked on a 3-year integrated planning process to prepare a comprehensive set of planning guidelines known as the Riverside County Integrated Project (RCIP) to maintain and enhance the quality of life for existing and new residents in the county. The RCIP addresses conservation, transportation, and housing needs through a coordinated effort of county plans and government cooperation and includes policies and programs from the Riverside County General Plan, Multi-Species Habitat Conservation Plan, and Community Environmental Transportation Corridor Acceptability Process.

Coachella Valley Multiple Species Habitat Conservation Plan

The Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) was adopted by all affected agencies in October 2007, in compliance with state and federal endangered species laws, to protect approximately 240,000 acres of open space and 27 species unique to the Coachella Valley desert environment. The CVMSHCP is divided into 21 conservation areas. Portions of Palm Desert and the SOI include land in the Santa Rosa and San Jacinto Mountain Conservation Area and the Thousand Palms Conservation Area.

Riverside Local Agency Formation Commission

The Local Agency Formation Commission (LAFCo) of Riverside County is a state-mandated local agency that administers California Government Code Sections 56000 et seq., known as the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000. Among the purposes of LAFCo are discouraging urban sprawl and encouraging the orderly formation and development of local government agencies, including cities and special districts, based on local conditions and circumstances (Section 56301). LAFCo regulates, through approval and denial, the boundary changes proposed by other public agencies or individuals. In reviewing proposals for boundary changes, LAFCo is required to consider certain factors such as the conformity between city and county plans, current service levels, and the need for future services to the area, as well as the social, physical, and economic effects that agency boundary changes present to the community (Government Code Section 56841).

City of Palm Desert Zoning Ordinance

The Zoning Ordinance, Chapter 25 of the Palm Desert Municipal Code, serves as the implementation component of the General Plan to ensure the orderly development of the city and to protect, promote, and enhance the public health, safety, and general welfare. The Zoning Ordinance establishes standards and procedures for development in each zoning district including height, setback, density, yard, parking, walls, landscaping, and use standards.

Impacts and Mitigation Measures

Analysis Approach

The analysis of impacts is based on the likely consequences of adoption and implementation of the updated General Plan, compared to existing conditions. The following analyses of impacts on land use and planning is based on the expected development capacity for the Planning Area compared to current conditions. The analysis assumes that all future and existing development in the Planning Area complies with the Land Use Diagram. An analysis of cumulative impacts uses qualitative information for the Planning Area.

The proposed General Plan update land use policy is based on long-established land use patterns, allowing incremental intensification of existing uses to reinforce historical patterns and accommodate future economic and residential growth. The General Plan update land use policy enables intensification of existing land use patterns to better utilize existing development and accommodate market-driven redevelopment in limited areas, focused along the Highway 111 corridor and around the universities.

The analysis herein is based on projected growth for Palm Desert as provided in Section 3.0, Project Description. This analysis does not assess impacts associated with the phasing of projects or interim improvements.

Draft General Plan Update Policies and Implementation Actions

The General Plan update policies and implementation actions that reduce potential land use impacts include:

Policies

Land Use & Community Character Element

- **Policy 1.1: Scale of development.** Require new development along the city's corridors use design techniques to moderate height and use and ensure compatible fit with surrounding development.
- **Policy 1.4: Phasing of public facilities.** Require new parks, open spaces and public facilities be constructed concurrent with, or prior to, the development of each Neighborhood. All required parks, open spaces and public facilities should be constructed before 75 percent of the dwelling units are constructed.
- **Policy 1.6: Community Amenities.** Balance the impacts of new development, density, and urbanization through the provision of a high-level of neighborhood and community amenities and design features.
- **Policy 2.5: Streetscape.** Enhance the pedestrian experience through streetscape improvements that could include new street lighting, tree planting, and easement dedications to increase the size of the sidewalks and pedestrian amenities.
- **Policy 2.9: Commercial requirements.** Require development projects in non-residential and mixed use areas to provide for enhanced pedestrian activity through the following techniques:

- Requiring that the ground floor frontage be oriented to and accessible from the sidewalk.
 - Locating the majority of a building’s frontages in close proximity to the sidewalk edge;
 - Requiring that the first level of the building occupy a majority of the lot’s frontage, with exceptions for vehicle access;
 - Requiring that the majority of the linear ground floor retail frontage (where it occurs) be visually and physically “penetrable,” incorporating windows and other design treatments to create an attractive street frontage;
 - Requiring that the first level of building where retail uses are allowed have a minimum 15 feet floor to floor height for non-residential uses;
 - Minimizing vehicle intrusions across the sidewalk;
 - Allowing for the development of outdoor plazas and dining areas;
 - Discouraging new surface parking lots; and
 - Locating parking (surface or structured) behind buildings, wherever feasible.
 - Address parking on a regional basis to maximize efficiency.
- **Policy 2.10: Auto-oriented uses.** Consider allowing uses that serve occupants of vehicles (such as drive-through windows) and discourage uses that serve the vehicle (such as car washes and service stations), in places that are clearly automobile oriented, ensuring that such uses do not disrupt pedestrian flow, are not concentrated, do not break up the building mass of the streetscape, and are compatible with the planned uses of the area.
 - **Policy 2.11: Roadway scale.** In pedestrian prioritized areas of the city, limit roadway size and design techniques that emphasize and/or prioritize automobile operation at the expense of pedestrian and bicycle operation.
 - **Policy 3.1: Complete neighborhoods.** Through the development entitlement process, ensure that all new Neighborhoods (areas with a “Neighborhood” General Plan Designation) are complete and well-structured such that the physical layout and land use mix promote walking to services, biking and transit use, are family friendly and address the needs of multiple ages and physical abilities. New neighborhoods should have the following characteristics:
 - Contain short, walkable block lengths.
 - Contain a high level of connectivity for pedestrians, bicycles and vehicles where practicable.
 - Are organized around a central focal point such as a park, school, civic building or neighborhood retail such that most homes are no more than one quarter-mile from this focal point.
 - Have goods and services within a short walking distance.

- Contain a diversity of housing types, where possible.
 - Have homes with entries and windows facing the street.
 - Have a grid or modified grid street network (except where topography necessitates another street network layout).
 - Provide a diversity of architectural styles.
- **Policy 3.2: Conventional neighborhood design.** Discourage the construction of new residential neighborhoods that are characterized by cul-de-sacs, soundwalls, long block lengths, single building and housing types and lack of access to goods and services.
 - **Policy 3.3: Variety of types of neighborhoods.** Promote a variety of neighborhoods within the City and ensure that neighborhood types are dispersed throughout the City.
 - **Policy 3.4: Balanced neighborhoods.** Within the allowed densities and housing types, promote a range of housing and price levels within each neighborhood in order to accommodate diverse ages and incomes. For development projects larger than five acres, require that a diversity of housing types be provided and that these housing types be mixed rather than segregated by unit type.
 - **Policy 3.7: Walkable neighborhoods.** Require that all new neighborhoods be designed and constructed to be pedestrian friendly and include features such as short blocks, wide sidewalks, tree-shaded streets, buildings that define and are oriented to streets or public spaces, traffic-calming features, convenient pedestrian street crossings, and safe streets that are designed for pedestrians, cyclists and vehicles.
 - Provision of sidewalks. Except within designated rural areas, require sidewalks of at least six feet in width on both sides of streets in neighborhoods and prohibit obstructions that would impede use of the sidewalk.
 - Block size. Require new neighborhoods to be designed with blocks no longer than 600 to 800 feet. Exceptions can be made if mid-block pedestrian and bicycle connections are provided.
 - **Policy 3.8: Neighborhood intersection density.** Require new neighborhoods to provide high levels of intersection density. Town Center and Small Town Neighborhoods should strive for 400 intersections per square mile. Conventional Suburban Neighborhoods should strive for at least 200 intersections per square mile.
 - **Policy 3.14: Access to daily activities.** Require development patterns such that the majority of residents are within one-half mile walking distance to a variety of neighborhood goods and services, such as supermarkets, restaurants, churches, cafes, dry cleaners, laundromats, farmers markets, banks, hair care, pharmacies and similar uses.

- **Policy 3.16: Neighborhood transitions.** Require that new neighborhoods provide appropriate transitions in scale, building type and density between different General Plan designations.
- **Policy 3.17: Gated communities.** Strongly discourage the construction of new gated communities except in the Rural or Resort General Plan Designations.
- **Policy 3.18: Soundwalls.** Allow the use of soundwalls to buffer new Neighborhoods from existing sources of noise pollution such as railroads and limited access roadways. Prohibit the use of soundwalls to buffer residential areas from arterial or collector streets. Instead design approaches such as building setbacks, landscaping and other techniques shall be used. In the case where soundwalls might be acceptable, require pedestrian access points to improve access from the Neighborhoods.
- **Policy 4.3: Regional retail districts.** Facilitate major regional serving commercial centers that provide a mix of uses in a pedestrian oriented format and become vibrant destinations for people to live, work, shop and congregate. Allow a wide variety of uses to locate in Regional Retail Districts including destination retail centers, mixed-use town centers, and hotels, among other uses.
- **Policy 4.4: Regional retail district design.** Allow for significant flexibility in the design of Regional Retail Districts so long as city-wide and project-level connectivity standards are met, the uses do not adversely affect adjacent uses and accommodations are made for pedestrians, bicycle and transit users. Design internal streets and parking into blocks and require sidewalks along both sides of these streets.
- **Policy 4.6: Industrial compatibility.** Where industrial uses are near existing and planned residential development, require that industrial projects be designed to limit the impact of truck traffic on residential areas.
- **Policy 4.7: Impact of industrial development.** Require new development within the city's industrial areas be designed for compatibility with surrounding uses to minimize impact and cultivate connectivity with each district.
- **Policy 5.5: Changing retail format.** Provide incentives to transform existing, auto-oriented suburban centers into neighborhood destinations by adding a diversity of uses, providing new pedestrian connections to adjacent residential areas, reducing the visual prominence of parking lots, making the centers more pedestrian-friendly and enhance the definition and character of street frontage and associated streetscapes.
- **Policy 5.6: Neighborhood center design.** Design new neighborhood centers to be walkable and pedestrian-friendly with buildings that front internal streets and public sidewalks and with buildings facing major roadways. No more than 50 percent of the frontage on streets may be parking lots.
- **Policy 6.1: Citywide connectivity.** Establish and preserve a citywide street network throughout the city where through roads occur approximately every one-quarter mile, except where connections cannot be made because of previous large development projects or physical constraints such as railroads,

waterways, steep slopes, limited access roadways and similar natural and man-made barriers.

- **Policy 6.2: Subarea connectivity.** Ensure a high-level of connectivity in all Neighborhoods, Centers and Districts throughout the city. The connectivity shall be measured as block perimeter and in external connectivity on the perimeter of a new development project.
- **Policy 6.3: Connections between development projects.** Require the continuation of the street network between adjacent development projects and discourage the use of cul-de-sacs except where necessary because connections cannot be made due to existing development, topographic conditions or limited access to transportation systems.
- **Policy 6.4: Cook Street.** Facilitate the development of Cook Street into a multimodal street that serves as community amenity, connecting both east and west sides of the street, as well as the north and south ends of the city.

Mobility Element

- **Policy 3.1: Pedestrian Network.** Provide a safe and convenient circulation system for pedestrians that include sidewalks, crosswalks, place to sit and gather, appropriate street lighting, buffers from moving vehicles, shading, and amenities for people of all ages.
- **Policy 3.2: Prioritized Improvements.** Prioritize pedestrian improvements in areas of the city with community and/or education facilities, supportive land use patterns, and non-automotive connections such as multi-use trails and transit stops.
- **Policy 3.3: Roadway Sidewalks.** Where feasible, provide adequate sidewalks along all public roadways.
- **Policy 3.4: Access to Development.** Require that all new development projects or redevelopment projects provide connections from the site to the external pedestrian network.
- **Policy 3.5: Pedestrian Education and Awareness.** Support regional efforts to encourage walking and also to reduce vehicular/pedestrian collisions.
- **Policy 3.6: Safe Pedestrian Routes to School.** Consider school access as a priority over vehicular movements when any such conflicts occur.

Environmental Resources Element

- **Policy 3.1: Open space network.** Require new development to comply with requirements of the CVMSHCP.

Health & Wellness Element

- **Policy 7.2: Walkable streets.** Regulate new development to ensure new blocks encourage walkability by maximizing connectivity and route choice, create reasonable block lengths to encourage more walking and physical activity and improve the walkability of existing neighborhood streets.
- **Policy 7.3: Pedestrian barriers.** Discourage physical barriers to walking and bicycling between and within neighborhoods and neighborhood centers. If physical barriers are unavoidable, provide safe and comfortable crossings for

pedestrians and cyclists. Physical barriers may include arterial streets with speed limits above 35 mph, transit or utility rights-of-way, very long blocks without through-streets, and sound walls, amongst others.

Implementation Actions

Land Use & Community Character Element

- **Action 2.16.** Play an active role in the Coachella Valley Association of Governments, the Southern California Association of Governments and other regional agencies to protect and promote the interests of the City
- **Action 2.18.** Develop and provide incentives to assist developers in revitalization and rehabilitation of existing structures, uses and properties through

Mobility Element

- **Action 4.9.** Develop and update guidelines for development projects that require connections from the site to the external pedestrian network (both for residential developing and on commercial sites).
- **Action 4.10.** Develop and update guidelines for development projects that promote connections to existing transit facilities

Thresholds of Significance

For the purposes of this EIR, land use-related impacts are considered significant if adoption and implementation of the General Plan update would:

Threshold	Determination
1. Physically divide an established community	No Impact
2. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect	Less Than Significant Impact
3. Conflict with any applicable habitat conservation plan or natural community conservation plan	Less Than Significant Impact
4. Cumulative effects	Less Than Significant Impact

Impacts and Mitigation Measures

IMPACT 4.10-1 **Physically Divide an Established Community.** *Adoption and implementation of the General Plan update would not result in the division of an existing community, nor would it result in substantial land use compatibility issues. **No impact** would occur.*

Division of an established community commonly occurs as a result of development and construction of physical features that constitute a barrier to easy and frequent travel between two or more constituent parts of a community. For example, a large freeway structure with few crossings could effectively split a community. Likewise, geographic features could similarly affect a community, such as the development of a large residential project on the opposite side of a river from the existing community.

One of the goals of the General Plan update is to increase the mobility of residents throughout the community and not only provide vehicular connections but also address non-motorized transportation options. Land Use & Community Character Element Policy 6.3 requires the continuation of the street network between adjacent development projects and discourages the use of cul-de-sacs except where necessary because connections cannot be made due to existing development, topographic conditions, or limited access to transportation systems. Policy 3.4 requires that all new development projects or redevelopment projects provide connections from the site to the external pedestrian network. Health & Wellness Element Policy 7.3 seeks to discourage physical barriers to walking and bicycling between and within neighborhoods and neighborhood centers.

Several of the policies and actions would improve not only connectivity but compatibility between existing and future development. A primary goal of the General Plan update is to retain the city's current character, and a number of policies address consistency of new development with existing developments through the use of materials, siting, and other design techniques (see Land Use & Community Character Element Policies 1.1, 3.4, 3.16, 3.17, 3.18, and 4.6).

No aspect of the proposed General Plan update would divide the existing city. In addition, the updated General Plan includes provisions that directly address land use connectivity, compatibility, and encroachment of new development on existing neighborhoods and land uses. Thus, the General Plan update would result in **no impact** regarding division of an established community or land use compatibility issues.

Mitigation Measures

None required.

IMPACT 4.10-2 **Conflict with an Applicable Plan, Policy, or Regulation.** *Adoption and implementation of the General Plan update in addition to anticipated local and regional growth would increase the number of housing units, nonresidential square footage, and the population in Palm Desert in combination with transportation improvements. However, these changes would be consistent with existing local and regional planning documents. Therefore, the impact would be **less than significant**.*

Consistency with City Land Use Plans and Regulations

The General Plan update, if approved, would instigate the state requirement to update the City's Municipal Code, Zoning Map, and other regulations to be consistent with the new General Plan and/or to address compatibility issues. State law requires zoning to be consistent with General Plan land use designations. The City is responsible for ensuring that the Zoning Ordinance and the General Plan are in conformity. In most instances, this consistency will mean that land is designated in the General Plan and zoned for similar uses with similar development standards (i.e., similar densities and minimum parcel sizes). Where zoning and General Plan land use designations are not identical, General Plan policies would be consulted carefully for guidance in amending the Zoning Ordinance for consistency with the updated General Plan. As such, inconsistency with City land use plans and regulations would be less than significant.

Consistency with Coachella Valley Multiple Species Habitat Conservation Plan

The City of Palm Desert is a permittee to the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP). This partnership is further supported by the proposed General Plan through Environmental Resources Element Policy 3.1, which requires new development to comply with requirements of the CVMSHCP.

Consistency with Neighboring Jurisdictions' Land Use Plans and Regulations

The city is bordered by Rancho Mirage to the west and Indian Wells to the south and east, the unincorporated community of Bermuda Dunes to the east, and unincorporated lands to the north. The City of Palm Desert is committed to working with all surrounding jurisdictions in an effort to deal with cross-border and regional issues. The General Plan update includes policies that support coordination with adjacent jurisdictions on land use. Additional provisions also ensure that the City will work with other agencies to coordinate planning in the implementation of the General Plan update (Action 2.16). Further, the General Plan update focuses future growth as infill development along the Highway 111 corridor and around the universities. One intent of this land use focus is to reduce the environmental impact associated with the General Plan update by eliminating the controversy and cost that often arises from changing land use patterns along jurisdictional boundaries as part of a General Plan update. For these reasons, the updated General Plan would not result in conflicts with the land use planning documents of adjacent jurisdictions.

As noted above, the General Plan update includes provisions that call for coordination with other agencies and adjacent jurisdictions and state law would instigate an update to the City's Municipal Code, Zoning Map, and other regulations to be consistent with the new General Plan and/or to address compatibility issues. Impacts to adopted land use regulations are therefore **less than significant**.

Mitigation Measures

None required.

Cumulative Impacts and Mitigation Measures

The cumulative setting associated with the General Plan update includes approved, proposed, planned, and other reasonably foreseeable projects and development in Palm Desert and surrounding municipalities. Developments and planned land uses, including the General Plan update, could cumulatively contribute to land use–related impacts.

IMPACT 4.10-3 ***Cumulative Land Use.** Implementation of the General Plan update, in addition to existing, proposed, approved, and reasonably foreseeable development in the region, would not contribute to cumulative land use impacts associated with the division of an established community or conflicts with land use plans and regulations that provide environmental protection. This cumulative impact would be **less than cumulatively considerable**.*

Under cumulative conditions, the General Plan update and subsequent development would not contribute to land use conflicts beyond those discussed in Impacts 4.10-1 and 4.10-2. There would be no further contribution to the division of an established community or conflicts between planning documents and regulations. As identified above, General Plan update policies and implementation actions provide for land use

compatibility in Palm Desert and coordination with adjacent jurisdictions as well as continued participation in the CVMSHCP. Therefore, this impact is **less than cumulatively considerable**.

Mitigation Measures

None required.

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4.11. Mineral Resources

Introduction

This chapter draws on data from the California Department of Conservation, Division of Mines and Geology, Surface Mining and Reclamation Act. The Surface Mining and Reclamation Act (SMARA) was developed to ensure the preservation of mineral resources while concurrently addressing the need to protect the environment. No known mineral resources exist in the city and Sphere of Influence (SOI).

NOP Comments: No comment letters were received in response to the Notice of Preparation (NOP) addressing mineral resource concerns.

Reference Information: Information for this section is based on numerous references, including the Palm Desert Technical Background Report (TBR) and other publicly available documents. The TBR prepared for the project is attached to this Draft EIR as **Appendix 4.0**. The EIR, including the Technical Background Report, is also available electronically on the City's website (<http://www.cityofpalmdesert.org/our-city/general-plan-update>).

Environmental Setting

As mapped in the Riverside County General Plan, Palm Desert is located in an MRZ-3 zone. The MRZ-3 classification indicates that the area has known mineral deposits that may qualify as mineral resources (MRZ-3a) or the area may have inferred deposits which may qualify as mineral resources (MRZ-3b). Current maps of the Planning Area are not sufficiently detailed to distinguish between MRZ-3a and MRZ-3b. Per the Riverside County General Plan, in 1988, the State of California Department of Conservation, Division of Mines and Geology, under the direction of SMARA, released a report identifying aggregate materials in the Palm Springs Production Consumption Region, which includes the Planning Area and is designated as a MRZ-3 resource (see Figure 11-1 in **Appendix 4.0**).

Desert Hot Springs Subbasin

Groundwater in the Desert Hot Springs subbasin is characterized by high concentrations of fluoride, total dissolved solids, sodium sulfates, and other undesirable minerals, which have limited the subbasin's use for agricultural and domestic water purposes. The presence of high mineral concentrations is largely due to faulting along the margins of the subbasin.

Thousand Palms Subarea

The southwestern boundary of the Thousand Palms subarea (within the Whitewater River subbasin) has been determined based on distinctive groundwater mineral characteristics. Groundwater in the subarea contains high concentrations of sodium sulfate, while groundwater in other subareas of the Whitewater River subbasin is generally composed of calcium bicarbonate. This is largely attributed to limited recharge to the Thousand Palms subarea.

Regulatory Setting

Regulations and policies provide a regulatory framework to address mineral resources that would be affected by adoption and implementation of the updated Palm Desert

General Plan. The City has also adopted local regulations and policies addressing mineral resources.

Federal Plans, Policies, Regulations, and Laws

No federal plans, policies, regulations, or laws related to mineral resources apply to Palm Desert.

State Plans, Policies, Regulations, and Laws

Surface Mining and Reclamation Act

The Surface Mining and Reclamation Act (SMARA) of 1975 (Public Resources Code, Division 2, Chapter 9, Section 2710 et seq.) mandated the classification of mineral lands throughout the state to help identify and protect mineral resources in areas subject to urban expansion or other irreversible land uses that would preclude mineral extraction. Since 1975, the State Mining and Geology Board (SMGB) has mapped areas in California that contain regionally significant mineral resources. Deposits of construction aggregate resources (sand, gravel, or crushed stone) were the initial commodity targeted for classification by the SMGB because of their importance to the state. Once areas are mapped, the SMGB is required to designate for future use those areas that contain aggregate deposits that are of prime importance to meeting the region's future need for construction quality aggregates.

The key objective of mineral lands classification under SMARA is for each jurisdiction to develop policies that will conserve important mineral resources, if feasible, when such resources are needed. SMARA requires that once policies are adopted, land use decisions by the local agency must be in accordance with that local agency's management policies for mineral resources. These decisions must also balance the mineral value of the resource to the market region as a whole, not just their importance to the local jurisdiction.

The State Geologist developed the California Mineral Land Classification System to assist in the implementation of SMARA. The system identifies the following types of MRZs for mapping and reporting purposes (DOC 2016:

- **MRZ-1:** Areas where adequate geologic information indicates that no significant mineral deposits are present or where it is judged that little likelihood exists of their presence.
- **MRZ-2a:** Areas underlain by mineral deposits where geologic data show that significant measured or indicated resources are present. Areas classified MRZ-2a contain discovered mineral deposits that are either measured or indicated reserves as determined by such evidence as drilling records, sample analysis, surface exposure, and mine information. Land included in the MRZ-2a category is of prime importance because it contains known economic mineral deposits.
- **MRZ-2b:** Areas underlain by mineral deposits where geologic information indicates that significant inferred resources are present. Areas classified MRZ-2b contain discovered deposits that are either inferred reserves or deposits that are presently sub-economic as determined by limited sample analysis, exposure, and past mining history.

- **MRZ-3a:** Areas containing known mineral deposits that may qualify as mineral resources, which could be considered hypothetical resources. MRZ-3a areas are considered to have a moderate potential for the discovery of economic mineral deposits.
- **MRZ-3b:** Areas containing inferred mineral deposits that may qualify as mineral resources, which could be considered speculative resources. Land classified MRZ-3b represents areas in geologic settings which appear to be favorable environments for the occurrence of specific mineral deposits.
- **MRZ-4:** Areas where geologic information does not rule out either the presence or absence of mineral resources. The distinction between the MRZ-1 and MRZ-4 categories is important for land use considerations. It must be emphasized that the MRZ-4 classification does not imply that there is little likelihood for the presence of mineral resources, but rather that there is a lack of knowledge regarding mineral occurrence.

Regional and Local Plans, Policies, Regulations, and Laws

Riverside County General Plan

While most of the Planning Area is in the incorporated city limits of Palm Desert, some of the Planning Area is in the unincorporated Sphere of Influence. Land in the unincorporated area remains subject to the Riverside County General Plan and development codes until annexed into the city. The General Plan contains the following policies relative to mineral resources:

- **OS 14.1.** Require that the operation and reclamation of surface mines be consistent with the State Surface Mining and Reclamation Act (SMARA) and County Development Code provisions.
- **OS 14.2.** Restrict incompatible land uses within the impact area of existing or potential surface mining areas.
- **OS 14.3.** Restrict land uses incompatible with mineral resource recovery within areas designated Open Space-Mineral Resources.
- **OS 14.4.** Impose conditions as necessary on mining operations to minimize or eliminate the potential adverse impact of mining operations on surrounding properties, and environmental resources.
- **OS 14.5.** Require that new non-mining land uses adjacent to existing mining operations be designed to provide a buffer between the new development and the mining operations. The buffer distance shall be based on an evaluation of noise, aesthetics, drainage, operating conditions, biological resources, topography, lighting, traffic, operating hours, and air quality.
- **OS 14.6.** Accept California Land Conservation (Williamson Act) contracts on land identified by the state as containing significant mineral deposits subject to the use and acreage limitations established by the County
- **LU 21.1.** Require that surface mining activities and lands containing mineral deposits of statewide or of regional significance comply with Riverside County Ordinances and the SMARA.

- **LU 21.2.** Protect lands designated as Open Space-Mineral Resource from encroachment of incompatible land used through buffer zones or visual screening.
- **LU 21.3.** Protect road access to mining activities and prevent or mitigate traffic conflicts with surrounding properties.
- **LU 21.4.** Require the recycling of mineral extraction sites to open space, recreational, or other uses that are compatible with the surrounding land uses.
- **LU 21.5.** Require an approved reuse plan prior to the issuing of a permit to operate an extraction operation.

City of Palm Desert Municipal Code

Municipal Code Section 8.50.190, Water Quality Standards, relates to mineral resources in Palm Desert:

- **8.50.190, Water Quality Standards.** Water from all new, repaired, and reconstructed community water supply wells shall be tested for and meet the standards for microbiological, general mineral, general physical, chemical, and radiological quality in accordance with the California Code of Regulations, Title 22, Domestic Water Quality and Monitoring.

Impacts and Mitigation Measures

Analysis Approach

The analysis of impacts is based on the likely consequences of adoption and implementation of the General Plan update compared to existing conditions.

Implementation Actions

No Palm Desert General Plan policies or implementation actions address mineral resources.

Thresholds of Significance

For the purposes of this Draft EIR, impacts on mineral resources are considered significant if adoption and implementation of the General Plan update would:

Threshold	Determination
1. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state	Less Than Significant
2. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan	Less Than Significant

Impacts and Mitigation Measures

IMPACT **Loss of Availability of Mineral Resources.** *Adoption and 4.11-1 implementation of the General Plan update would not result in the loss of availability of a known mineral resource or of a locally important mineral resource recovery site. Local policies would ensure a **less than significant** impact to mineral resources.*

The entirety of Palm Desert is classified as Mineral Resource Zone 3 (MRZ-3) under the California Mineral Land Classification System. In MRZ-3 areas, mineral resources are present, but the significance of the resource is considered speculative because no mining has historically occurred in the area. In addition, Riverside County General Plan Policy OS 14.5 requires that new non-mining land uses adjacent to existing mining operations be designed to provide a buffer between the new development and the mining operations. The buffer distance would be based on an evaluation of noise, aesthetics, drainage, operating conditions, biological resources, topography, lighting, traffic, operating hours, and air quality.

Implementation of the Palm Desert General Plan update would not result in the direct or indirect loss of availability of a known or locally important mineral resource because of urbanization in the MRZ-3 area. Therefore, the General Plan update would have a **less than significant** impact on mineral resources.

Mitigation Measures

None required.

References

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4.12. Noise

Introduction

This resource chapter of the EIR describes existing and forecasted noise conditions within Palm Desert and evaluates the potential environmental effects related to noise associated with implementation of the City of Palm Desert's General Plan. Noise Element goals and policies guide development and infrastructure practices to protect the ambient noise environment from degradation due to changes in land uses and increases in transportation volumes. Mitigation measures are recommended, as necessary, to reduce significant noise impacts.

NOP Comments: In response to the Notice of Preparation (NOP), no comments were received regarding Noise impacts.

Reference Information: Information for this resource chapter is based on numerous references, including the *City of Palm Desert's General Plan Technical Background Report* (TBR) and other publicly available documents. The TBR is attached to this document as **Appendix 4.0**. This EIR, including the TBR, is also available electronically on the City's website (<http://www.cityofpalmdesert.org/our-city/general-plan-update>). **Appendix 4.12** to this EIR provides noise-modeling data used to complete this analysis. Information used to complete noise modeling includes existing average daily traffic (ADT) and forecasted ADT for major City roadways.

Environmental Setting

Section 12 of the TBR (**Appendix 4.0**) describes the basic science of acoustics and specific acoustic practices related to environmental noise and vibration, summarizes how noise affects humans in the built environment, and provides noise levels and descriptions of the existing noise sources and sensitive receptors within the city. Noise topics discussed in the TBR are summarized below.

Noise Background

Noise level (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound pressure levels to be consistent with that of human hearing response, which is most sensitive to frequencies around 4,000 Hertz (about the highest note on a piano) and less sensitive to low frequencies (below 100 Hertz).

Sound pressure level is measured on a logarithmic scale with the 0 dB level based on the lowest detectable sound pressure level that people can perceive (an audible sound that is not zero sound pressure level). Based on the logarithmic scale, a doubling of sound energy is equivalent to an increase of 3 dBA, and a sound that is 10 dBA less than the ambient sound level has no effect on ambient noise. Because of the nature of the human ear, a sound must be about 10 dBA greater than the reference sound to be judged as twice as loud. In general, a 3 dBA change in community noise levels is noticeable, while 1-2 dBA changes generally are not perceived. Quiet suburban areas typically have noise levels in the range of 40-50 dBA, while arterial streets are in the 50-60+ dBA range. Normal conversational levels are in the 60-65 dBA range, and ambient noise levels greater than 65 dBA can interrupt conversations.

Noise levels typically drop off at a rate of 6 dBA per doubling of distance from point sources (such as industrial machinery). Noise from lightly traveled roads typically attenuates at a rate of about 4.5 dB per doubling of distance. Noise from heavily traveled roads typically attenuates at about 3 dB per doubling of distance. Noise levels may also be reduced by intervening structures; generally, a single row of buildings between the receptor and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm reduces noise levels by 5 to 10 dBA. Standard new residential construction typically provides a reduction of exterior-to-interior noise levels of 25 dBA or more with windows closed (FTA, May 2006).

In addition to the actual instantaneous measurement of sound levels, the duration of sound is important since sounds that occur over a long period of time are more likely to be an annoyance or cause direct physical damage or environmental stress. One of the most frequently used noise metrics that considers both duration and sound power level is the equivalent noise level (Leq). The Leq is defined as the single steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual fluctuating levels over a period of time (essentially, the average noise level). Typically, Leq is summed over a one-hour period. Lmax is the highest RMS (root mean squared) sound pressure level within the measuring period, and Lmin is the lowest RMS sound pressure level within the measuring period.

The time period in which noise occurs is also important since noise that occurs at night tends to be more disturbing than that which occurs during the day. Community noise is usually measured using Day-Night Average Level (Ldn), which is the 24-hour average noise level with a 10-dBA penalty for noise occurring during nighttime (10 p.m. to 7 a.m.) hours, or Community Noise Equivalent Level (CNEL), which is the 24-hour average noise level with a 5 dBA penalty for noise occurring from 7 p.m. to 10 p.m. and a 10-dBA penalty for noise occurring from 10 p.m. to 7 a.m. Noise levels described by Ldn and CNEL usually do not differ by more than 1 dB.

Existing Traffic Noise

Traffic noise is the predominant noise source in Palm Desert. The City's roadway system includes regional freeways, major highways and other arterials, collector, and local streets. Regional connectivity to the City is provided by Interstate (I-10), California State Route 111 (SR 111), and California State Route 74 (SR 74). Major roadways within the City include Monterey Ave, Washington Street, Fred Waring Drive, Country Club Drive, Frank Sinatra Drive, Gerald Ford Drive, Dinah Shore Drive, Portola Avenue, and Cook Street. From these major roadways, higher volumes of traffic are observed on Washington Street (over 40,000 vehicles per day) Monterey Avenue (over 40,000 vehicles per day), and Fred Waring Drive (over 30,000 vehicles per day). Existing and future traffic noise contours, ranging from 60 to 75 A-weighted decibels (dBA), of all major roadways within the City are shown in **Figures 4.12-1 and 4.12-2**.¹ Existing and future traffic noise levels of all major roadway segments are shown in **Table 4.12-4**.

¹ Because the human ear can detect a wide range of sound-pressure fluctuations, sound-pressure levels are expressed in logarithmic units called decibels (dB) to avoid a very large and inconvenient range in numbers. Because the human ear is not equally sensitive to all audible frequencies, a frequency-dependent rating scale was devised to relate noise to human

Existing Aircraft Noise

The Bermuda Dunes Airport is located approximately 1.75 miles east of the current city limits and is located within Palm Desert's sphere of influence. Palm Springs International Airport is located approximately seven miles northwest of Palm Desert, and generates noise due to medical evacuation flights traversing to and from Desert Regional Medical Center. Both airports generate air traffic that can impact the community's noise environment.

Existing Train Noise

Freight rail service along the Union Pacific Railroad lines located immediately south of and parallel to Interstate 10 are also responsible for generating substantial noise levels in this area, which combines with noise levels due to high volumes of daily traffic on the interstate. According to the Federal Railroad Administration, this railroad experiences up to 16 daytime trains daily (6AM to 6PM) and 14 nighttime trains (6PM to AM). Although the passage of trains is an intrusive noise source, it occurs only periodically and with limited duration. A more substantial noise source in this area is Interstate 10, which experiences high levels of truck traffic accounting for approximately 28% of the total daily traffic.

Existing Construction, Stationary, and Operational Source Noise

Noise is produced as a result of many processes and activities, even when the best available noise control technology is applied. Noise exposures within industrial facilities are controlled by federal and state employee health and safety regulations, but noise levels that extend beyond the facility's property line may exceed locally acceptable standards. Loading and materials transfer areas, outdoor materials warehousing operations and other acoustically unscreened operations would raise issues of noise impact. Activities associated with commercial, recreational, and public service facilities can also produce noise that affects adjacent sensitive land uses.

For example, the operation of mechanical equipment (e.g. refrigerator units, chillers, heating/air conditioner equipment and roof-mounted equipment) associated with facilities can create a continual and audible drone. On the other hand, emergency-use sirens and backup alarms are a more substantial noise source; however, they may not occur frequently enough to be considered incompatible with noise-sensitive land uses. Noise sources can either be continuous or periodic and may contain tonal components that can negatively affect the quality of life and be a nuisance to individuals who live nearby.

Existing Noise Sensitive Receptors

Particularly sensitive land uses include residences, schools, libraries, churches, hospitals and nursing homes, and destination resort areas. Golf courses, parks, and other outdoor activity areas can be sensitive to noise disturbances. Less sensitive land uses include commercial and industrial uses, conventional hotels and motels, neighborhood ballparks, and other outdoor spectator sport areas. Least sensitive to noise are heavy commercial and industrial uses, transportation, communication and utility land uses. The location of existing land uses in Palm Desert are described in

sensitivity. An A-weighted dB (dBA) scale performs this by deemphasizing the low-frequency sounds because humans are more sensitive to high frequency sounds.

Section 10, *Land Use and Planning*, of **Appendix 4.0. Table 4.12-1** shows the ranges of allowable exterior ambient noise levels for various land uses.

Regulatory Setting

Federal, state, and local laws, regulations, and policies regulate noise in the planning area. They provide the regulatory framework for addressing all aspects of noise that would be affected by implementation of *City of Palm Desert's General Plan*. The regulatory setting for noise is discussed in detail in the TBR (**Appendix 4.0**). While federal and state guidelines outline noise requirements, specific noise policies are enacted at the local level. Regulations most applicable to the City as it relates to the impact analysis are provided below.

Federal

Federal Transportation Administration Vibration Impact Criteria

The Vibration Impact Criteria thresholds adopted by the Federal Transit Administration are designed to identify acceptable noise levels for noise-sensitive buildings, residences, and institutional land uses near railroads. The thresholds that apply to residences and buildings where people normally sleep (e.g., nearby residences) are 72 VdB for frequent events (more than 70 events of the same source per day), 75 VdB for occasional events (30 to 70 vibration events of the same source per day), and 80 VdB for infrequent events (less than 30 vibration events of the same source per day).

Federal Aviation Regulations (FAR) Part 150, Airport Noise Compatibility Planning

Advisory in nature, FAR Part 150 prescribes a system for measuring airport noise impacts and presents guidelines for identifying incompatible land uses. Completion of an FAR Part 150 plan by the airport proprietor is a prerequisite for obtaining Federal Aviation Administration (FAA) funding for noise abatement projects.

HUD Environmental Criteria and Standards, 24 CFR Part 51

The Federal Department of Housing and Urban Development (HUD) requires new residential construction qualifying for HUD financing proposed in high noise areas (exceeding 65 dBA Ldn) to incorporate noise attenuation features to maintain acceptable interior noise levels. HUD requires that all structures provide sufficient attenuation to achieve an interior level of 45 dBA Ldn or less if the exterior level is 65 dBA Ldn or less. HUD approvals in a "normally unacceptable noise zone" (exceeding 65 decibels but not exceeding 75 decibels) requires a minimum of five decibels additional noise attenuation for buildings if the day-night average is greater than 65 decibels but does not exceed 70 decibels, or minimum of 10 decibels of additional noise attenuation if the day-night average is greater than 70 decibels but does not exceed 75 decibels.

Title 23 of the Code of Federal Regulations, Part 772

The Federal Highway Administration (FHWA) requires new Federal or Federal-aid highway construction projects, or alterations to existing highways that substantially change either the horizontal or vertical alignment and/or increases the number of through-traffic lanes, to abatement noise per Title 23 of the Code of Federal Regulations. FHWA considers noise abatement for sensitive receivers such as picnic areas, recreation areas, playgrounds, active sport areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals when "worst-hour" noise levels

approach or exceed 67 dBA Leq. Caltrans has further defined “approaching the NAC” to be 1 dBA below the NAC (e.g., 66 dBA Leq is considered approaching the NAC for Category B activity areas).

State

California Code of Regulations (Title 24)

Known as the California Building Code, the California Code of Regulations contains standards for allowable interior noise levels associated with exterior noise sources. The standards state that “Interior noise levels attributable to exterior sources shall not exceed 45 dB in any habitable room.” The standards apply to new hotels, motels, dormitories, apartment houses, and dwellings other than detached single-family residences (i.e., apartments). The code goes on to indicate that: “Residential structures to be located where the annual Ldn or CNEL exceeds 60 dB shall require an acoustical analysis showing that the proposed design will achieve the prescribed allowable interior level. For public use airports or heliports the Ldn or CNEL shall be determined from the airport land use plan prepared by the County in which the airport is located. For all other airports or heliports, or public use airports or heliports for which a land use plan has not been developed, the Ldn or CNEL shall be determined from the noise element of the general plan of the local jurisdiction.”

California Code of Regulations (Title 21)

The State Division of Aeronautics has adopted standards for airport-related noise. The standards establish an acceptable noise level of 65 dB for uses near airports. This standard applies to persons residing in urban residential areas where houses are of typical California construction and may have windows partially open.

California Department of Transportation Construction Vibration

The California Department of Transportation (Caltrans) has adopted guidance for construction vibrations. Caltrans uses a vibration limit of 12.7 mm/sec (0.5 inches/sec) Peak Particle Velocity (PPV) for buildings that are structurally sound and designed to modern engineering standards. A conservative vibration limit of five mm/sec (0.2 inches/sec) PPV has been used for buildings that are found to be structurally sound but where structural damage is a major concern. For historic buildings or buildings that are documented to be structurally weakened, a conservative limit of two mm/sec (0.08 inches/sec) PPV is often used to provide the highest level of protection. All of these limits have been used successfully and compliance with these limits has not been known to result in appreciable structural damage. All vibration limits referred to in this chapter apply on the ground level and take into account the response of structural elements (i.e., walls and floors) to ground-borne excitation. Typically vibrations in Palm Desert would be related to construction operations or passing of trains near homes and buildings built near the railroad tracks.

California Government Code Section 65302(f)

California Government Code Section 65302(f) requires all General Plans to include a Noise Element that addresses noise-related impacts in the community. The State Office of Planning and Research (OPR) has prepared guidelines for the content of the noise element, which includes the development of current and future noise level contour maps.

Local

City of Palm Desert Noise Element

The intent of the Noise Element is to help assure compatibility of the community's land uses with the existing and future noise environment, and to ensure that any potentially negative effects of noise on the community are minimized or avoided entirely. The Noise Element identifies noise conditions within the City, its Sphere-of-Influence and the General Plan study area, and projects future noise conditions in the community resulting from continued growth. Through the implementation of the policies and programs in the Noise Element, current and future potential noise impacts are addressed, with the goal of assuring that the general health, safety and welfare of the community is, to the greatest extent practical.

City of Palm Desert Noise Ordinance

The Palm Desert Noise Control Ordinance, found in Title 9 Chapter 9.24 of the Palm Desert Municipal Code (PDMC), contains guidance for the purpose of striking a balance between normal, everyday noises that are unavoidable in an urban environment and those noises that are so excessive and annoying to persons of ordinary sensitivity that they must be mitigated to protect the comfort and tranquility of all persons who live and work in the City.

Within the City of Palm Desert, the applicable limit ten-minute average sound level limits for outdoor noise levels in residential areas is 55 dBA from 7 a.m. to 10 p.m., and 45 dBA from 10 p.m. to 7 a.m. The standard used for maximum outdoor noise levels in residential areas in California and the City specifically is a CNEL of 65 dBA. Section 9.24.060 of the PDMC establishes the following activities that are considered exempt from the provision of the Code. The following exemptions are applicable:

- School bands, school athletic and school entertainment events;
- Outdoor gatherings, public dances, shows and sporting and entertainment events; provided, the events are authorized by the city;
- Activities conducted in public parks and public playgrounds;
- Any mechanical device, apparatus or equipment used, related to or connected with emergency machinery, vehicle or work;
- All mechanical devices, apparatus or equipment which are utilized for the protection or salvage of agricultural crops during periods of potential or actual frost damage or other adverse weather conditions;
- Mobile noise sounds associated with agricultural operations provided such operations do not take place between the hours of eight p.m. and seven a.m. on weekdays, including Saturday, or at any time on Sunday or a federal holiday;
- Mobile noise sources associated with agricultural pest control through pesticide application;
- Noise sources associated with property maintenance activities referred to in Section 9.24.075 of the PDMC;
- The provisions of this regulation shall not preclude the construction, operation, maintenance and repairs of equipment, apparatus or facilities of

park and recreation departments, public work projects or essential public services and facilities, including those of public utilities subject to the regulatory jurisdiction of the California Public Utilities Commission;

- Carillon chimes between the hours of eight a.m. to seven p.m.
- And noise sources associated with construction activities taking place within specified time periods referred to in Section 9.24.070 of the PDMC. Currently those time periods are seven a.m. through five-thirty p.m Monday through Friday and eight a.m. through five p.m. on Saturday during the period of October 1st through April 30th. For the period of May 1st through September 30th the time periods for construction are six a.m. through seven p.m Monday through Friday and eight a.m. through five p.m. on Saturday. No construction is permitted on holidays or Sundays.

Impacts and Mitigation Measures

Analysis Approach

The analysis of impacts is based on the likely consequences of adoption and implementation of *City of Palm Desert General Plan*, compared to existing conditions. The following analyses of impacts on ambient noise levels are based on available information for the planning area, along with review of regional information. The analysis assumes that all future and existing development within the planning area complies with applicable laws, regulations, design standards, and plans.

Draft General Plan Goals and Policies

The *City of Palm Desert's General Plan* goals and policies that address potential noise impacts include the following:

Noise Element

The Noise Element provides a comprehensive program for including noise control in the planning process. It is a tool for local planners to use in achieving and maintaining land uses that are compatible with environmental noise levels. The Noise Element identifies noise-sensitive land uses and noise sources, and defines areas of noise impact for the purpose of developing and implementing programs to ensure that Palm Desert residents will be protected from excessive noise intrusion.

Goal 1: Land Use Planning and Design. A city where noise compatibility between differing types of land uses is ensured through the land use planning process and design strategies.

- **Policy 1.1: Noise Compatibility.** Apply the Noise Compatibility Matrix, shown in Figure 7.1, as a guide for planning and development decisions. The City will require projects involving new development or modifications to existing development to implement mitigation measures, where necessary, to reduce noise levels to at least the normally compatible range shown in the City's Noise Compatibility Matrix shown in Figure 7.1. Mitigation measures should focus on architectural features and building design and construction, rather than site design features such as excessive setbacks, berms and sound walls, to maintain compatibility with adjacent and surrounding uses.

- **Policy 1.2: Noise Buffers.** Require an open space or other noise buffer between new projects that are a source of excessive noise and nearby noise-sensitive receptors.
- **Policy 1.3: Mixed Use.** Require that mixed-use structures and areas be designed to prevent transfer of noise from commercial uses to residential uses, and ensure a 45 dBA CNEL level or lower for all interior living spaces.
- **Policy 1.4: County and Regional Plans.** Periodically review County and regional plans for transportation facilities and airport operation, to identify and mitigate potential noise impacts on future development.
- **Policy 1.5: Airport Land Use Planning.** Ensure that new development in the city complies with all applicable policies contained in the Riverside County General Plan Noise Element relating to airport noise, including those policies requiring compliance with the airport land use noise compatibility criteria contained in the airport land use compatibility plan for Bermuda Dunes Airport, which is located within the City's Sphere of Influence
- **Policy 1.6: Land Use and Community Design.** Prioritize the building design and character policies in the Land Use and Community Character Element over those in the Noise Element to ensure that new development meets the design vision of the city. This policy will not apply when noise levels are clearly in the incompatible range as shown in the City's Noise Compatibility Matrix shown in Figure 7.1.

Goal 2: Stationary Sources of Noise. A city with minimal noise from stationary sources.

- **Policy 2.1: Noise Ordinance.** Minimize noise conflicts between neighboring properties through enforcement of applicable regulations such as the City's Noise Control Ordinance.
- **Policy 2.2: Noise Control.** Ensure that noise impacts from stationary sources on noise-sensitive receptors and noise emanating from construction activities, private developments/residences, landscaping activities, night clubs and bars, and special events are minimized.
- **Policy 2.3: Entertainment Uses.** Ensure that entertainment uses, restaurants, and bars engage in responsible management and operation to control the activities of their patrons on-site and within reasonable and legally justifiable proximity to minimize noise impacts on adjacent residences and other noise-sensitive receptors, and require mitigation as needed for development of entertainment uses near noise-sensitive receptors
- **Policy 2.4: Industrial Uses.** Ensure that industrial uses engage in responsible operational practices that minimize noise impacts on adjacent residences and other noise-sensitive receptors, and require mitigation as needed for development of industrial uses near noise-sensitive receptors.
- **Policy 2.5: Noise Barriers for Industrial/Commercial Sources.** If necessary, and after implementation of measures utilizing architectural features and building design and construction consistent with Policy 1.2, require certain industrial and certain heavy commercial uses to use absorptive types of noise barriers or

walls to reduce noise levels generated by these uses. To be considered effective, the noise barrier should provide at least a 5-dBA CNEL noise reduction.

Goal 3: Mobile Sources of Noise. A city with minimal noise from mobile sources.

- **Policy 3.1. Roadway Noise.** Implement the policies listed under Goal 1 to reduce the impacts of roadway noise on noise-sensitive receptors where roadway noise exceeds the normally compatible range shown in **Table 4.12-1**.
- **Policy 3.2 Traffic Calming.** Implement traffic calming measures such as reduced speed limits or roadway design features to reduce noise levels through reduced vehicle speeds and/or diversion of vehicle traffic where roadway noise exceeds the normally compatible range shown in **Table 4.12-1**.
- **Policy 3.3 Synchronization of Traffic Lights.** Ensure that all new traffic signals are appropriately timed and synchronized with adjacent lights, even if in neighboring cities, to the extent feasible in order to help promote a smooth flow of traffic and minimize excessive noise from acceleration and braking. Also periodically assess the timing of existing traffic signals and make any appropriate adjustments.
- **Policy 3.4 Railway Noise.** Ensure that noise from rail lines is taken into account during the land use planning and site development processes.

Thresholds of Significance

For the purposes of this EIR, impacts on noise are considered significant if adoption and implementation of *City of Palm Desert General Plan* would result in:

Threshold	Level of Significance
1. Exposure of persons to or generation of noise levels in excess of applicable local, state, or federal exterior and interior noise standards;	Less Than Significant Impact
2. Exposure of persons to or generation of excessive groundborne vibration or ground borne noise levels;	Less Than Significant Impact
3. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;	Less Than Significant Impact
4. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project; or	Less Than Significant Impact
5. Exposure of persons residing or working in the area to excessive noise levels, for a project located within an airport land use plan or within 2 miles of a public airport.	Less Than Significant Impact

Threshold	Level of Significance
6. Exposure of persons residing or working in the project area to excessive noise levels, for a project within the vicinity of a private air strip	Less Than Significant Impact

The private airstrip nearest to the project site is the Desert Regional Medical Center Heliport, located approximately 9 miles northwest of the City limits. The project would not be subject to excessive noise levels associated with airstrip operations. Further discussion in this EIR is not warranted. Each impact below is given a descriptive title, with the CEQA thresholds to which it relates listed in parentheses.

The City of Palm Desert has developed exterior land use compatibility standards that rate compatibility using the terms normally acceptable, possibly acceptable, and normally unacceptable, and also provide standards for interior acceptable noise levels. Using these land use compatibility guidelines, the City has established interior and exterior noise standards or thresholds of significance. Standards proposed by *The City of Palm Desert General Plan* are presented in **Table 4-12-1**. These standards, which use the CNEL/L_{dn} noise descriptor, provide for normally acceptable conditions based on state recommendations. They are intended to apply to land uses exposed to noise levels generated by transportation sources (e.g., traffic, railroad operations, aircraft). These standards also establish maximum interior noise levels for new residential development, requiring that sufficient insulation be provided to reduce interior ambient noise levels to 45 dBA CNEL/L_{dn}

Table 4.12-1 Maximum Allowable Noise Exposure – Land Use Compatibility

Land Use Category	Exterior Normally Acceptable ¹ (dBA CNEL/L _{dn})	Exterior Possibly Acceptable ² (dBA CNEL/L _{dn})	Exterior Normally Unacceptable ³ (dBA CNEL/L _{dn})	Interior Acceptable ⁴ (dBA CNEL/L _{dn} except where noted)
Residential, single-family	Up to 60	61-70	71 and higher	45
Residential, multi-family	Up to 65	66-70	71 and higher	45
Residential, multi-family mixed-use	Up to 65	66-70	71 and higher	45
Transient lodging	Up to 65	66-70	71 and higher	45
Hospitals; nursing homes	Up to 60	61-70	71 and higher	45
Theaters; auditoriums; music halls	Up to 60	61-70	71 and higher	35 dBA L _{eq} ⁵

Table 4.12-1, continued

Land Use Category	Exterior Normally Acceptable ¹ (dBA CNEL/Ldn)	Exterior Possibly Acceptable ² (dBA CNEL/Ldn)	Exterior Normally Unacceptable ³ (dBA CNEL/Ldn)	Interior Acceptable ⁴ (dBA CNEL/Ldn except where noted)
Churches; meeting halls	Up to 60	61-70	71 and higher	40 dBA L _{eq}
Playgrounds; neighborhood parks	Up to 70	71-75	76 and higher	--
Schools; libraries; museums	Up to 60	61-70	71 and higher	45 dBA L _{eq}
Offices	Up to 70	71-75	76 and higher	45 dBA L _{eq}
Retail/commercial	Up to 70	71-75	76 and higher	--
Industrial	Up to 75	76-80	81 and higher	--

Notes:

- 1 Normally acceptable means that land uses may be established in areas with the stated ambient noise level, absent any unique noise circumstances.
- 2 Possibly acceptable means that land uses should be established in areas with the stated ambient noise level only when exterior areas are omitted from the project or noise levels in exterior areas can be mitigated to the normally acceptable level.
- 3 Normally unacceptable means that land uses should generally not be established in areas with the stated ambient noise level. If the benefits of the project in addressing other *City of Palm Desert General Plan* goals and policies outweigh concerns about noise, the use should be established only where exterior areas are omitted from the project or where exterior areas are located and shielded from noise sources to mitigate noise to the maximum extent feasible.
- 4 Interior acceptable means that the building must be constructed so that interior noise levels do not exceed the stated maximum, regardless of the exterior noise level. Stated maximums are as determined for a typical worst-case hour during periods of use.
- 5 dBA L_{eq} is as determined for a typical worst-case hour during periods of use.

Application of the noise standards will vary on a case-by-case basis according to location, development type, and associated noise sources. When stationary noise is the primary noise source, and to ensure that noise producers do not adversely affect noise-sensitive land uses, the City applies a second set of standards. These hourly daytime and nighttime performance standards (expressed in L_{eq}) for stationary noise sources are designed to protect noise-sensitive land uses adjacent to stationary sources from excessive noise. **Table 4.12-2** summarizes stationary-source noise standards for various land use types, which represent acceptable noise levels at exterior spaces of the sensitive receptor.

Table 4.12-2 Maximum Allowable Noise Exposure—Stationary Noise Sources

Noise Source	Noise Level Descriptor	Exterior Spaces ² — Daytime (7 a.m. to 10 p.m.)	Exterior Spaces ² — Nighttime (10 p.m. to 7 a.m.)
Typical	Hourly dBA Leq	551	451
Tonal, impulsive, repetitive, or consisting primarily of speech or music	Hourly dBA Leq	501	401
Any	dBA Lmax	75	65

Notes:

- 1 The City may impose noise level standards that are more or less restrictive than those specified above based upon determination of existing low or high ambient noise levels.
- 2 Where the location of exterior spaces (i.e., outdoor activity areas) is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use. Where it is not practical to mitigate exterior noise levels at patio or balconies of apartment complexes, a common area such as a pool or recreation area may be designated as the exterior space.

To account for permanent increases in ambient noise levels, the City has established numeric thresholds of significance. Where the existing ambient noise level is less than 60 dBA, a project-related permanent increase in ambient noise levels of 5 dBA CNEL/L_{dn} or greater would be considered substantial. Where the existing ambient noise level is greater than 60 dBA, a project-related permanent increase in ambient noise levels of 3 dBA CNEL/L_{dn} or greater would be considered substantial. Application of the noise standards will vary on a case-by-case basis according to location, development type, and associated noise sources.

The State CEQA Guidelines do not define the levels at which groundborne vibration or groundborne noise is considered “excessive.” For the purpose of this analysis, groundborne vibration impacts associated with human annoyance would be considered significant if the proposed project exceeds 85 VdB, which is the vibration level that is considered by the Federal Transit Administration (FTA) to be acceptable only if there are an infrequent number of daily events. In terms of groundborne vibration impacts on structures, this analysis will use the FTA’s vibration damage threshold of approximately 100 VdB for fragile buildings, and approximately 95 VdB for extremely fragile historic buildings (FTA, 2006).

Impacts and Mitigation Measures

IMPACT 4.12-1 Expose Noise Sensitive Receptors to Construction Noise Levels (Thresholds 1, 4). *Short-term construction noise levels associated with implementation of the General Plan could exceed applicable City of Palm Desert standards at nearby noise-sensitive receptors. In addition, if construction activities were to occur during more noise-sensitive hours (outside the construction hours defined in PDMC Section 9.24.070), construction noise levels could also create a substantial temporary increase in ambient noise levels creating a **potentially significant** impact.*

While implementation of the *City of Palm Desert General Plan* would not directly result in new development within Palm Desert, it would allow development and redevelopment, which would generate noise during construction activity. Future development within the City would occur primarily where existing development has not reached the developmental potential or capacity allowed by the existing *General Plan* designations.

Construction activity within these areas would have the potential to impact noise sensitive land uses. **Table 4.12-3** illustrates typical noise levels associated with the operation of construction equipment at a distance of 50 feet. As shown, construction equipment generates high levels of intermittent noise ranging from 55 dBA to 95 dBA and would result in a significant impact where noise sensitive land uses adjoin construction sites.

Although construction activities will result in a substantial noise increase in such locations, this impact will be short term and will cease upon completion of construction.

The City of Palm Desert exempts construction noise between the hours of 7:00 a.m. to 5:30 p.m. weekdays and 8:00 a.m. to 5:00 p.m. Saturdays, but does not contain quantified noise level limits for construction activities. The regulatory exemption reflects the City's acknowledgement that construction noise is a necessary part of new development and does not create an unacceptable public nuisance when conducted during the least noise sensitive hours of the day.

As discussed in the TBR, noise levels drop off at a rate of about 6 dBA per doubling of distance between the noise source and receptor. However, intervening structures would also result in lower noise levels at the receptor. Sound levels may be attenuated 3.0 dBA to 5.0 dBA by a first row of houses/buildings and 1.5 dBA for each additional row of houses in built-up environments (FHWA, 1978). These factors generally limit the distance construction noise travels and ensure noise impacts from construction are localized.

Table 4.12-3 Construction Equipment Noise Levels

Equipment Item	Typical Maximum Noise Level (dBA) at 50 Feet
Earthmoving	
Backhoes	80
Bulldozers	85
Front Loaders	80
Graders	85
Paver	85

Table 4.12-3, continued

Equipment Item	Typical Maximum Noise Level (dBA) at 50 Feet
Roller	85
Scrapers	85
Tractors	84
Slurry Trencher	82
Dump Truck	84
Pickup Truck	55
Materials Handling	
Concrete Mixer Truck	85
Concrete Pump Truck	82
Crane	85
Man Lift	85
Stationary Equipment	
Compressors	80
Generator	82
Pumps	77
Impact Equipment	
Compactor	80
Jack Hammers	85
Impact Pile Drivers (Peak Level)	95
Pneumatic Tools	85
Rock Drills	85
Other Equipment	
Concrete Saws	90
Vibrating Hopper	85
Welding Machine / Torch	73
Source: Bolt, Beranek and Newman Inc., 1981; FTA, 2006:12-6	

Although construction noise would attenuate rapidly from individual construction sites, noise sensitive land uses could be intermittently exposed to substantial temporary increases in ambient noise levels. Due to the potential for high short-term and instantaneous noise levels during peak construction activity at nearby residential properties, several *General Plan* Noise Element policies have been developed to reduce noise levels associated with construction.

The *City of Palm Desert General Plan* Noise Element Policies 1.1, 2.1, and 2.2 include measures to limit exposure of noise sensitive land uses to excessive noise levels from point sources, including construction activities. Policy 1.1, 2.1, and 2.2 are outlined below.

- 1.1 Noise Compatibility.** Apply the Noise Compatibility Matrix, shown in Figure 7.1, as a guide for planning and development decisions. The City will require projects involving new development or modifications to existing development to implement mitigation measures, where necessary, to reduce noise levels to at least the normally compatible range shown in the City’s Noise Compatibility Matrix shown in Figure 7.1. Mitigation measures should focus on architectural features and building design and construction, rather than site design features such as excessive setbacks, berms and sound walls, to maintain compatibility with adjacent and surrounding uses.

- **2.1 Noise Ordinance.** Minimize noise conflicts between neighboring properties through enforcement of applicable regulations such as the City's Noise Control Ordinance.
- **2.2 Noise Control.** Ensure that noise impacts from stationary sources on noise-sensitive receptors and noise emanating from construction activities, private developments/residences, landscaping activities, night clubs and bars, and special events are minimized.

Because of the potential for the use of ground moving equipment, compressors, hammers and similar building activities, noise levels near construction sites would be higher than existing ambient levels at those locations. There are two types of construction noise impacts that could occur during construction resulting from future developments consistent with the General Plan update.

First, construction crew commutes and the transport of construction equipment and materials to construction sites would incrementally increase noise levels on access roads leading to these sites. The California Vehicle Code section 27204 limits vehicle noise for motor vehicles manufactured after 1987 and weighing 10,000 pounds to 80 dba. This size of vehicle would be used to tow trailers containing grading equipment to and from the site and may be used to move soil to and from a site during construction. The 80 dba noise level, measured at 50 feet from the vehicle, is also the limit for passenger vehicles. All vehicle travelling on public roadways must be registered and comply with the California Vehicle Code.

For larger projects, the project-specific environmental analysis would examine the extent of construction, the probable route and staging areas, and then determine the extent of impact. Other than the transport of heavy construction equipment to and from a construction site, most of the commuting is done with personal vehicles such as cars and pickup trucks that have noise patterns similar to the existing traffic. Since workers would commute on existing roadways, construction times (including the relocation of large equipment) are limited by ordinance to daytime hours. For smaller projects, the provisions of the California Vehicle Code will regulate noise from the vehicle itself, and the construction hour limitations limiting noise exposure to the areas adjacent to the project. Because the construction and equipment movement noise would be similar to existing traffic, this impact is less than significant.

The second type of short-term noise impact is related to noise generated during site preparation, grading, building construction and site improvements. Noise levels associated with typical construction equipment are summarized in **Table 4.12-3** above.

Construction noise is exempt from the City's noise ordinance, and the City has no adopted threshold for construction, which is intermittent and temporary in nature. To determine a threshold for construction noise, construction-related standards of other agencies were reviewed. Specifically, noise standards from the California Department of Transportation (Caltrans), the American National Standards Institute (ANSI), the American Conference of Governmental Industrial Hygienists (ACGIH), the Federal Railroad Administration (FRA), and the California Department of Industrial Relations (DIR) were reviewed. Their limits are as follows:

Caltrans Standard Specifications Section 14-8

Do not exceed 86 dBA LMax (maximum instantaneous sound level) at 50 feet from the job site activities from 9 p.m. to 6 a.m.

The American National Standards Institute

A10.46-2007, Hearing Loss Prevention in Construction and Demolition Workers. Applies to all construction and demolition workers with potential noise exposures (continuous, intermittent, and impulse) of 85 dBA and above.

The American Conference of Governmental Industrial Hygienists

The ACGIH has established exposure guidelines for occupational exposure to noise in its Threshold Limit Values (TLVs) (85 dBA PEL with a 3 dBA exchange rate).

Federal Railroad Administration

[49 CFR 227](#), Occupational Noise Exposure for Railroad Operating Employees. Requires railroads to conduct noise monitoring and implement a hearing conservation program for employees whose exposure to cab noise equals or exceeds an 8-hour time-weighted-average of 85 dBA. This final rule became effective February 26, 2007.

California Department of Industrial Relations

Employers shall make hearing protectors available to all employees exposed to an 8-hour time-weighted average of 85 decibels or greater at no cost to the employees. Hearing protectors shall be replaced as necessary. The DIR also establishes time-based exposure limits to different noise levels; however, their table starts at the 90 dBA level.

As shown above, these agencies seem to settle on 85 dBA as a reasonable threshold of noise exposure for construction workers. Construction activities would be intermittent and temporary, and it is highly unlikely that a noise-sensitive receptor (as exposed to a construction worker) would be exposed to construction-related noise levels above 85 dBA continuously for the length of the project's construction. However, the City has determined that exposure of noise-sensitive receptors to construction noise levels above 85 dBA would result in a potentially significant impact.

It is unknown where and when construction resulting from future developments consistent with the General Plan update will occur, and what specific receptors may be affected by the noise. To ensure that construction noise is below 85 dBA, mitigation measure **NOI-1** requires the use of grading and excavation equipment that has been certified to generate noise levels of no more than 85 dBA at a distance of 50 feet, or erecting a temporary noise barrier during construction to ensure that the noise level is not exceeded, and coordinating with the adjacent receptors such that they are aware of the construction schedule.

Compliance with mitigation measure **NOI-1** will ensure notification of the adjacent receptors, a contact to call concerning noise, a requirement to conduct the noisiest construction activities (e.g., grading and trenching) during the time of day when most residents are at work, and that the noise wall is constructed to reduce noise during the noisiest construction activities of the project. This will ensure that noise levels are at or below the 85 dBA threshold; therefore, this impact is less than significant with mitigation incorporated.

NOI-1 **Construction Noise Impacts.** Construction resulting from future developments consistent with the General Plan update would potentially result in higher noise levels at nearby sensitive receptors. The following best management practices (BMPs) would reduce short-term construction-related noise impacts:

1. Notification shall be mailed to owners and occupants of all developed land uses immediately bordering the construction site, and posted directly across the street from the construction site, providing a schedule for major construction activities that will occur for the duration of the construction period. In addition, the notification will include the identification of and contact number for a community liaison and a designated construction manager who would be available on-site to monitor construction activities. The construction manager will be located at the on-site construction office during construction hours for the duration of all construction activities. Contact information for the community liaison and the construction manager will be located at the construction office, City Hall, and the police department.
2. During all construction site excavation and grading, the construction contractor shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards.
3. The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the construction site.
4. For off road construction the contractor shall utilize grading and excavation equipment that is certified to generate noise levels of no more than 85 dBA at a distance of 50 feet.
5. All equipment designed for use on public roads shall be properly maintained with operating mufflers and air intake silencers as effective as those installed by the original manufacturer.
6. The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receptors nearest the construction site during all project construction.

Timing/Implementation:

Prior to any earth movement permit or activity

Enforcement/Monitoring:

City Planning and Public Works Departments

Additionally, the City's Noise Element requires future projects to conduct project-level noise analyses. With incorporation of the General Plan policies, compliance with the City's noise ordinance, and implementation of NOI-1, noise impacts would be **less than significant with mitigation incorporated**.

IMPACT 4.12-2 *Long-Term Increase in Traffic Noise Levels at Existing Noise-Sensitive Receptors (Thresholds 1, 3).* Development facilitated by the General Plan would increase traffic and associated noise levels along area roadways in and around the City, which would expose existing and planned receptors to noise level increases. However, implementation of City of Palm Desert General Plan policies and programs would improve traffic flow, roadway design, and site design to reduce overall traffic noise within the city. Based on traffic modeling conducted for City of Palm Desert General Plan, this impact would be **less than significant**.

Implementation of the proposed project would allow new development and redevelopment within the city that would generate additional traffic, which would increase ambient noise levels along local and regional roadways. However, the proposed project includes policies that would reduce noise related to vehicular traffic. These policies require new development and/or modifications to existing development to include sound-reducing design measures to maintain compatibility with adjacent and surrounding uses; promote alternative transportation technologies that minimize noise impacts; and require performance of project-specific acoustical studies for individual development projects. To examine traffic noise impacts, traffic noise levels associated within the City of Palm Desert were calculated for roadway segments in the city using the Department of Housing and Urban Development (HUD) Day/Night Noise Level (DNL) Calculator (HUD, 2014) Traffic noise levels were modeled under existing and 2040 conditions. Average daily traffic volumes were obtained from the traffic analysis prepared for the *City of Palm Desert General Plan*. (Fehr & Peers, 2016) Vehicle mix classification and speeds for local area roadways were based on field observations and the *2014 Annual Average Daily Truck Traffic on the California State Highway System* prepared by Caltrans (Caltrans, 2014). **Figure 4.12-1** shows existing noise contours along major roadways, while **Figure 4.12-2** shows future 2040 noise contours.

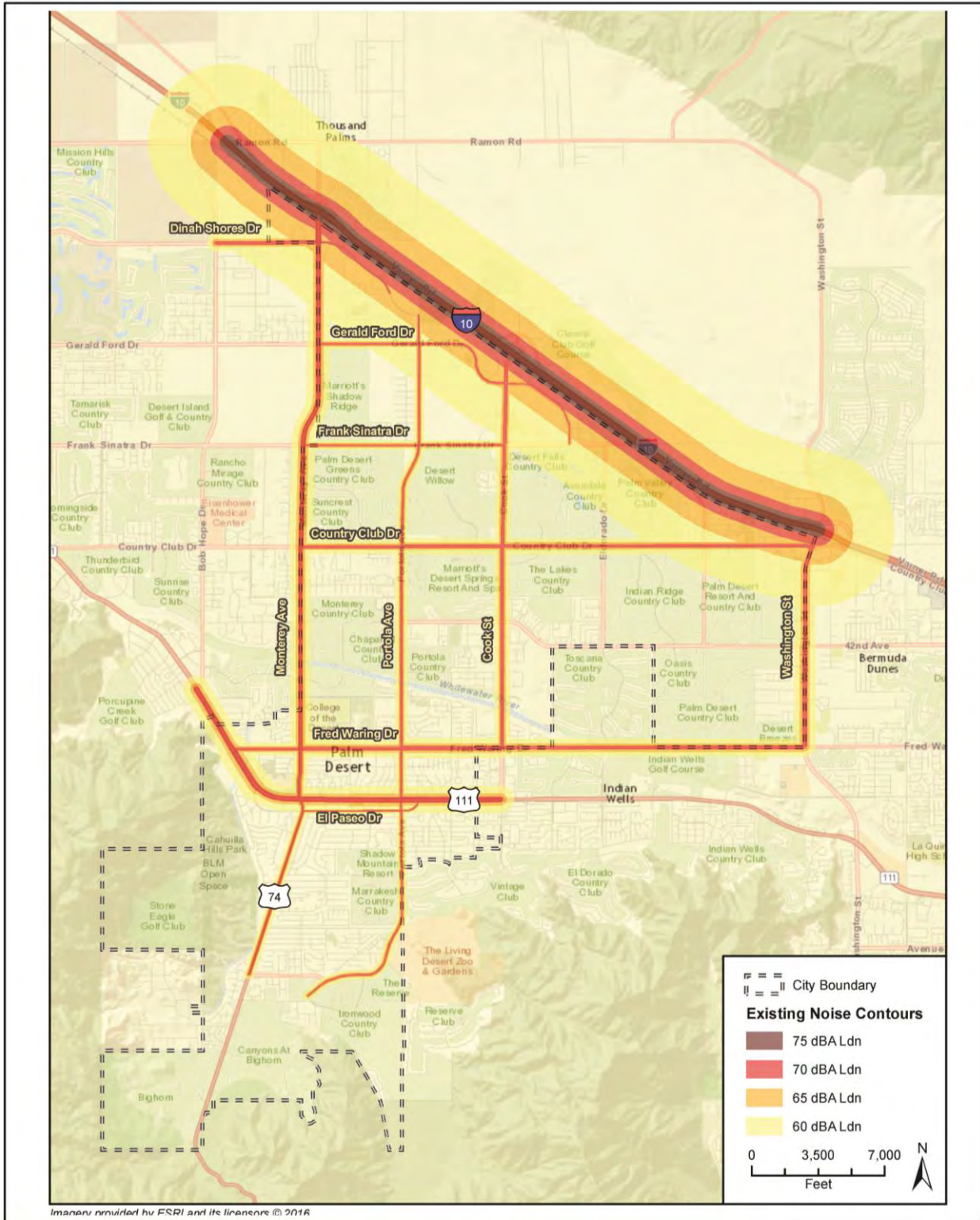
Table 4.12-4 summarizes modeled noise levels at 100 feet from the roadway centerline for affected roadway segments in the city. These traffic noise levels represent an application of conservative traffic noise modeling methodologies, which assume no natural or artificial shielding from existing or proposed structures or topography. Actual traffic noise exposure levels at noise sensitive receptors in the project vicinity would vary depending on a combination of factors, including variations in daily traffic volumes, shielding provided by existing and proposed structures, and meteorological conditions. Please refer to **Appendix 4.12** of this EIR for complete modeling inputs and results.

Based on the modeling presented in **Table 4.12-4**, implementation of the proposed project would not result in a substantial change in traffic noise levels under 2040 conditions, when compared to existing conditions. When comparing future 2040 noise levels to existing noise levels, no roadway segment would experience increases in ambient noise levels that exceed significance criteria and impacts would be considered **less than significant**.

Mitigation Measure

No mitigation is required.

Figure 4.12-1 Existing Noise Contours

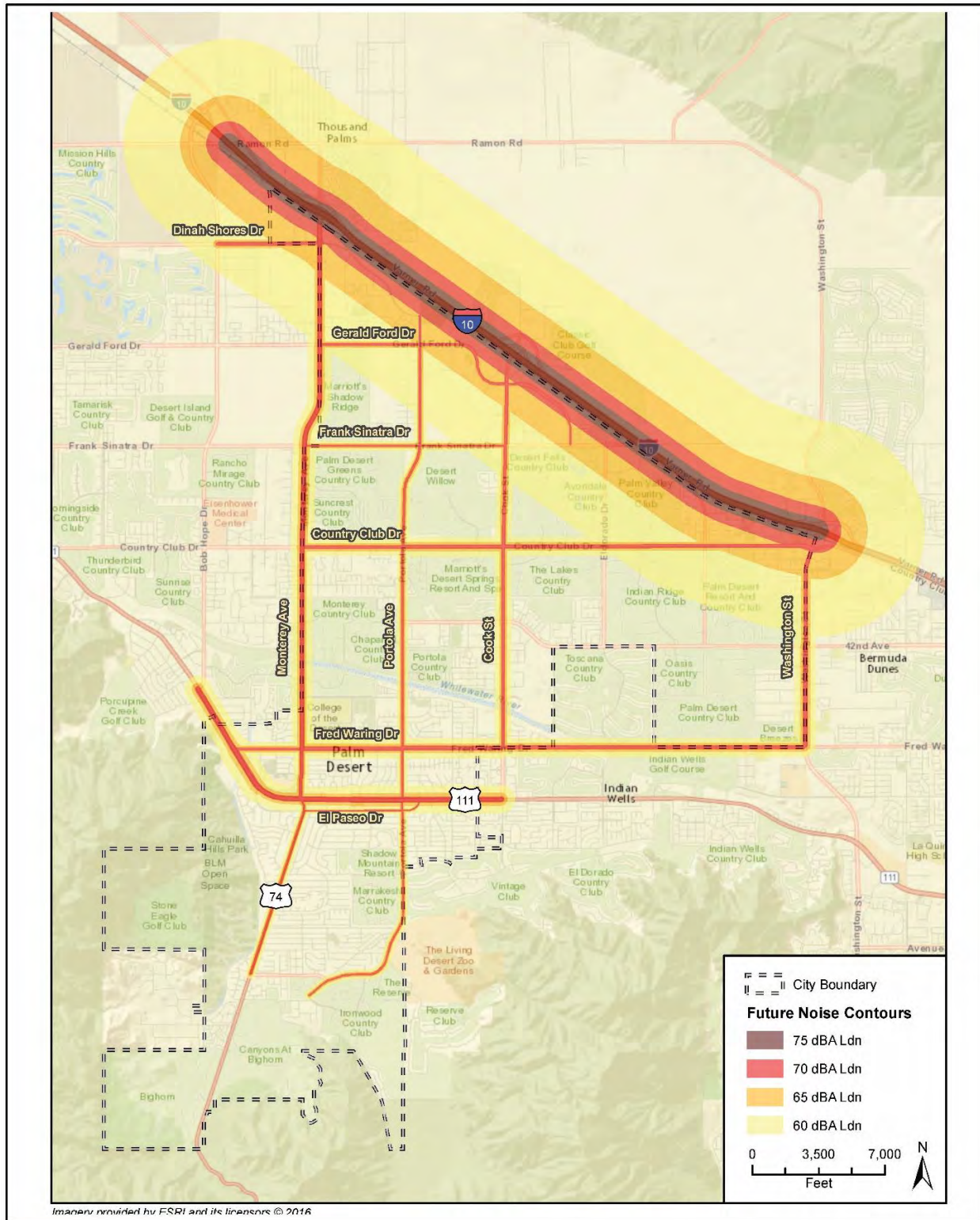


Michael Baker
INTERNATIONAL

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EXISTING NOISE CONTOURS

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Figure 4.12-2 Future Noise Contours



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IMPACT 4.12-3 Exposure of Noise Sensitive Receptors to Stationary Source Noise in Excess of Applicable Standards (Thresholds 1, 3). *Implementation of the City of Palm Desert General Plan would result in increases in on-site stationary-source noise levels associated with the proposed residential, commercial, mixed-use, office/industrial, park, and educational land uses. These stationary noise sources could exceed applicable hourly and maximum noise standards and result in a substantial increase in ambient noise levels. However, adherence to and implementation of General Plan policies and programs and adherence to the City's Noise Control Ordinance would result in a **less-than-significant impact**.*

As described in Chapter 3.0, *Project Description*, implementation of the *City of Palm Desert General Plan* would include a University Neighborhood Specific Plan for the development of a walkable, mixed-use neighborhood west of the California State University San Bernardino-Palm Desert Campus. Additionally, the *General Plan* would include a 111 Corridor Plan, which contains detailed policy guidance, development standards, and design guidelines for the transformation of the Highway 111 corridor into a walkable, mixed-use city center. As a result of increased residential development in the City, the number of noise-sensitive receptors would also increase. As a consequence, the increase in dwelling units could result in locating noise-sensitive receptors near existing and planned noise-generating land uses.

Where exterior noise levels are below 65 dBA L_{dn} , interior noise levels for new construction would typically meet the interior 45 dBA L_{dn} standard established in Title 24 of the California Code of Regulations, due to standard construction techniques that reduce interior noise. Where exterior noise levels range from 60 dBA to 70 dBA L_{dn} , interior noise can be mitigated by standard wall and window construction, and the inclusion of mechanical forced-air ventilation to allow occupants the option to keep windows closed to control noise. Where exterior noise levels exceed 70 dBA L_{dn} , residential units would not normally be able to meet the 45 dBA L_{dn} interior standard simply through typical construction methods. Thus, noise-sensitive uses (as described under the heading *Existing Noise Sensitive Receptors* in Section 4.12.2,) located within the 70 dBA L_{dn} contour may require additional noise reduction measures, such as windows and doors with high Sound Transition Class (STC) ratings to meet the 45 dBA L_{dn} criteria.

The *City of Palm Desert General Plan* also proposes an increase in non-residential land uses in the City. Noise sources associated with commercial and industrial land uses could include mechanical equipment operations, public address systems, parking lot noise (e.g., opening and closing of vehicle doors, people talking, car alarms), delivery activities (e.g., use of forklifts, hydraulic lifts), trash compactors, and air compressors. Noise from such equipment can reach intermittent levels of approximately 90 dBA 50 feet from the source (EPA, 1974: B-1). However, these noise generating activities would be subject to the requirements of the City's Noise Control Ordinance, which establishes limits on noise generated by machinery, equipment, fans, and HVAC equipment.

Table 4.12-4 Traffic Noise Levels Existing and Future City of Palm Desert Conditions

Roadway	Segment	Existing Condition*	Ldn at 100 Feet, dBA			Significant Impact?
			Future 2040	Project Net Change from Existing Conditions		
Monterey Ave	N/O Dinah Shore Drive	72.6	72.6	0.0	No	
Monterey Ave	N/O Gerald Ford Drive	71.5	71.6	0.1	No	
Monterey Ave	N/O Country Club Drive	71.8	71.9	0.1	No	
Monterey Ave	N/O Fred Waring Drive	70.9	71.2	0.3	No	
Portola Ave	S/O Highway 111	66.5	66.7	0.2	No	
Portola Ave	N/O Fred Waring Drive	67.8	67.1	-0.7	No	
Portola Ave	N/O Country Club Drive	67.0	67.8	0.8	No	
Portola Ave	N/O Frank Sinatra Drive	66.7	68.0	1.3	No	
Cook Street	N/O Fred Waring Drive	69.2	69.5	0.3	No	
Cook Street	N/O Country Club Drive	69.5	69.5	0.0	No	
Cook Street	N/O Frank Sinatra Drive	69.7	69.9	0.2	No	
Cook Street	N/O Gerald Ford Drive	70.6	70.7	0.1	No	
Washington Street	N/O Fred Waring Drive	71.4	71.4	0.0	No	
Washington Street	N/O Hovley Lane	71.0	71.0	0.0	No	
Washington Street	N/O Country Club Drive	71.6	71.9	0.3	No	
Fred Waring Drive	E/O Highway 111	67.7	68.3	0.6	No	
Fred Waring Drive	E/O Monterey Avenue	69.9	71.0	0.1	No	
Fred Waring Drive	W/O Cook Street	70.9	70.9	0.0	No	
Fred Waring Drive	W/O Washington Street	70.1	70.5	0.4	No	
Country Club Drive	W/O Portola Avenue	68.6	69.8	1.3	No	
Country Club Drive	W/O Washington Street	69.6	70.7	1.1	No	
Frank Sinatra Drive	W/O Portola Avenue	66.0	66.4	0.4	No	
Frank Sinatra Drive	W/O Cook Street	66.1	67.0	0.9	No	

Table 4.12-4, continued

Roadway	Segment	Existing Condition*	Ldn at 100 Feet, dBA			Significant Impact?
			Future 2040	Project Net Change from Existing Conditions		
Gerald Ford Drive	E/O Cook Street	64.4	66.6	2.2	No	
Gerald Ford Drive	E/O Monterey Avenue	66.7	68.3	1.6	No	
Dinah Shore Drive	W/O Monterey Avenue	69.9	70.2	0.3	No	
Dinah Shore Drive	E/O Monterey Avenue	66.7	67.8	1.1	No	
El Paseo	E/O Highway 74	64.1	64.1	0.0	No	
Highway 111	E/O Bob Hope Drive	72.6	72.6	0.0	No	
Highway 111	E/O Fred Waring Drive	73.7	73.7	0.0	No	
Highway 111	W/O Monterey Avenue	72.2	72.3	0.1	No	
Highway 111	E/O San Pablo Avenue	72.8	73.2	0.4	No	
Highway 111	W/O Cook Street	72.8	72.9	0.1	No	
Highway 74	N/O Mesa View Drive	66.4	66.4	0.0	No	
Interstate 10	Monterey Ave ⇔ Portola Avenue	84.2	86.1	1.9	No	
Interstate 10	Portola Avenue ⇔ Cook Street	84.2	86.1	1.9	No	
Interstate 10	Cook Street ⇔ Washington Street	84.0	86.2	2.2	No	

Note:

* Traffic noise levels are predicted at a standard distance of 100 feet from the roadway centerline and do not account for shielding from existing noise barriers or intervening structures. Traffic noise levels may vary depending on actual setback distances and localized shielding.

Source: Data modeled using the HUD DNL Calculator (HUD, 2014). Traffic data used from traffic impact study prepared by Fehr & Peers, 2016.

In addition, the *City of Palm Desert's General Plan* Noise Element Policies 1.1 through 1.6, and 2.1 through 2.5 include actions to reduce noise related conflicts between residential and non-residential land uses.

- **Policy 1.1: Noise Compatibility.** Apply the maximum allowable noise exposure for different land uses, shown in Figure 7 Noise Compatibility Matrix, as a guide for planning and development decisions. The City will require projects involving new development or modifications to existing development to implement mitigation measures, where necessary, to reduce noise levels to at least the normally compatible range. Mitigation measures should focus on architectural features and building design and construction, rather than site design features such as excessive setbacks, berms and sound walls, to maintain compatibility with adjacent and surrounding uses.
- **Policy 1.2: Noise Buffers.** Require an open space or other noise buffer between new projects that are a source of excessive noise and nearby noise-sensitive receptors.
- **Policy 1.3: Mixed Use.** Require that mixed-use structures and areas be designed to prevent transfer of noise from commercial uses to residential uses, and ensure a 45 dBA CNEL level or lower for all interior living spaces.
- **Policy 1.4: County and Regional Plans.** Periodically review County and regional plans for transportation facilities and airport operation, to identify and mitigate potential noise impacts on future development.
- **Policy 1.5: Airport Land Use Planning.** Ensure that new development in the city complies with all applicable policies contained in the Riverside County General Plan Noise Element relating to airport noise, including those policies requiring compliance with the airport land use noise compatibility criteria contained in the airport land use compatibility plan for Bermuda Dunes Airport, which is located within the City's Sphere of Influence
- **Policy 1.6: Land Use and Community Design.** Prioritize the building design and character policies in the Land Use and Community Character Element over those in the Noise Element to ensure that new development meets the design vision of the city. This policy will not apply when noise levels are clearly in the incompatible range as shown the Noise Compatibility Matrix
- **Policy 2.1: Noise Ordinance.** Minimize noise conflicts between neighboring properties through enforcement of applicable regulations such as the City's Noise Control Ordinance.
- **Policy 2.2: Noise Control.** Ensure that noise impacts from stationary sources on noise-sensitive receptors and noise emanating from construction activities, private developments/residences, landscaping activities, night clubs and bars, and special events are minimized.
- **Policy 2.3: Entertainment Uses.** Ensure that entertainment uses, restaurants, and bars engage in responsible management and operation to control the activities of their patrons on-site and within reasonable and legally justifiable proximity to minimize noise impacts on adjacent residences and other noise-sensitive receptors, and require mitigation as needed for development of entertainment uses near noise-sensitive receptors

- **Policy 2.4: Industrial Uses.** Ensure that industrial uses engage in responsible operational practices that minimize noise impacts on adjacent residences and other noise-sensitive receptors, and require mitigation as needed for development of industrial uses near noise-sensitive receptors.
- **Policy 2.5: Noise Barriers for Industrial/Commercial Sources.** If necessary, and after implementation of measures utilizing architectural features and building design and construction consistent with Policy 1.2, require certain industrial and certain heavy commercial uses to use absorptive types of noise barriers or walls to reduce noise levels generated by these uses. To be considered effective, the noise barrier should provide at least a 5-dBA CNEL noise reduction.

With adherence to and implementation of these *City of Palm Desert General Plan* policies and adherence to the City's Noise Control Ordinance, program-level stationary noise source and land use conflict noise impacts would be **less than significant**.

Mitigation Measure

None required.

IMPACT Exposure of Noise Sensitive Receptors to Rail Noise (Thresholds 1, 4).

- 4.12-4** *Implementation of the City of Palm Desert General Plan could result in increased exposure of sensitive receptors to rail-generated noise. However, General Plan policies and programs would reduce potential noise exposure. Therefore, this impact is less than significant.*

Freight rail service along the Union Pacific Railroad lines located immediately south of and parallel to Interstate 10 is responsible for generating substantial noise levels in this area. According to the Federal Railroad Administration, this railroad experiences up to 16 daytime trains (6AM to 6PM) and 14 nighttime trains (6PM to 6AM). Given the variety of freight and length of trains that use the corridor, it is not possible to precisely quantify rail noise levels. Although the passage of trains is an intrusive noise source, it occurs only periodically and with limited duration. A more substantial noise source in this area is Interstate 10, which experience high levels of truck traffic accounting for approximately 28% of the total daily traffic. The Town Center Neighborhood, Employment District, Industrial District, Public Facility/Institutional District, Regional Retail District, and Suburban Retail Center would experience the most growth adjacent to Interstate 10 under buildout of the General Plan. These areas would allow a variety of uses, including residential, research and development, retail, recreational, governmental, and industrial. Some of these uses may include future sensitive receptors. However, the *City of Palm Desert General Plan* Policies 1.1, 1.2, 1.4, and 3.4, included in the Noise Element are designed to prevent and reduce sources of excessive noise, including rail operations. Policy 1.1 is listed above, in Impact 4.12-1, and the remaining Policies are listed below:

- **1.2 Noise Buffers.** Require an open space or other noise buffer between new projects that are a source of excessive noise and nearby noise-sensitive receptors.
- **1.4 County and Regional Plans.** Periodically review County and regional plans for transportation facilities and airport operation, to identify and mitigate potential noise impacts on future development.

- **3.4 Railway Noise.** Ensure that noise from rail lines is taken into account during the land use planning and site development processes.

Guidance included in the *General Plan* will be applied at the project level as the City considers land use changes in the future. Development projects located along the railroad line would be required to reduce noise levels in accordance with the *City of Palm Desert General Plan* policies and an updated Noise Control Ordinance through project design and site planning. This would be a **less than significant** impact.

Mitigation Measure

None required.

IMPACT 4.12-5 Exposure of Noise Sensitive Receptors to Aircraft Noise (Thresholds 5, 6). *The City of Palm Desert General Plan implementation could result in increased exposure of sensitive receptors to aircraft generated noise. However, City of Palm Desert General Plan policies and programs would reduce potential noise exposure; this impact would be less than significant.*

The Bermuda Dunes Airport is located approximately 1.75 miles east of the current city limits and located within Palm Desert’s sphere of influence. The Bermuda Dunes Airport is a privately owned “Public Use General Aviation, Utility Category Airport.” It is FAA approved and operates under State of California and County of Riverside permits. In 2015, the airport underwent various, substantial changes with regards to staffing and facilities. The airport has since introduced a new maintenance operation and is currently engaged in a remodeling process for both the lobby and the adjacent 15,000 square foot hangar. In total, the airport has parking accommodations for approximately 250 aircraft. There are approximately 11,500 operational activities (landings and takeoffs) per year, which equates to an average daily traffic count of 32 operations (Bermuda Dunes, 2016). The City of Palm Desert General Plan Policies 1.1, 1.4, and 1.5, included in the Noise Element, are designed to prevent and reduce sources of excessive noise, including airport operations. Policy 1.1 is outlined above in Impact 4.12-1, Policy 1.4 is outlined above in Impact 4.12-2, and Policy 1.5 is outlined below.

- **1.5 Airport Land Use Planning.** Ensure that new development in the city complies with all applicable policies contained in the Riverside County General Plan Noise Element relating to airport noise, including those policies requiring compliance with the airport land use noise compatibility criteria contained in the airport land use compatibility plan for Bermuda Dunes Airport, which is located within the City’s Sphere of Influence.

Any development in Palm Desert or its Sphere of Influence that is also within the Airport Land Use Compatibility Plan of Bermuda Dunes Airport would also require review by the Riverside County Airport Land Use Commission (ALUC), which would help ensure compliance with Policy 1.5. As such, additional existing and future residents within the city would not be exposed to noise levels in excess of city standards as a result of continued operation of the airport. This would be a **less than significant** impact.

Mitigation Measure

None required.

IMPACT 4.12-6 Exposure of Sensitive Receptors to Groundborne Vibration (Threshold 2). *Sensitive receptors could be subjected to operational and construction vibration levels in excess of established thresholds. However, adherence to and implementation of General Plan policies and programs and adherence to the City's Municipal Code (9.24.070 Construction Activities) would result in a **less-than-significant impact**.*

Construction and operation of projects resulting from future developments consistent with the General Plan update would create a significant impact if it resulted in groundborne vibration levels that could cause disturbance to sensitive receptors or physical damage to fragile buildings.

Groundborne vibration in the City of Palm Desert is generated primarily by two sources: temporary construction activities and permanent traffic on roadways and railways. Both of these activities, while they are occurring, create “frequent” vibration events as defined in the FTA’s May 2006 Transit Noise and Vibration Impact Assessment, which sets a 72 VdB threshold for frequent events affecting residences and buildings where people normally sleep and a 100 VdB threshold for minor cosmetic damage to fragile buildings (vibration levels below 100 VdB produce no damage to buildings).

Construction activities that would occur under the proposed project would generate groundborne vibration. **Table 4.12-5** below identifies vibration levels for common types of construction equipment.

Under the proposed project, construction activities would occur at discrete locations in the city and vibration from such activity may impact existing buildings and their occupants if they are located close enough to the construction sites. Based on the information presented in **Table 4.12-5**, if sensitive receptors are located close enough to potential project construction sites these sensitive receptors (such as residences or schools) could experience vibration levels exceeding the FTA’s vibration impact threshold of 72 VdB. However, this threshold is for residences where people normally sleep. Section 9.24.070 of the City of Palm Desert Municipal Code (PDMC) specifically exempts noise sources associated with construction, erection, demolition, alteration, repair, addition to or improvement of any building, structure, road or improvement to realty, provided that such activities take place during daytime hours, as follows:

October 1st through April 30th

- Monday – Friday: 7:00 a.m. to 5:30 p.m.
- Saturday: 8:00 a.m. to 5:00 p.m.
- Sunday: None.
- Holidays: None

May 1st through September 30th

- Monday – Friday: 6:00 a.m. to 7:00 p.m.
- Saturday: 8:00 a.m. to 5:00 p.m.
- Sunday: None.
- Holidays: None

These restrictions on hours of construction would keep any such construction activities exceeding 72 VdB at the nearest sensitive receptor from significantly interfering with people’s sleep.

Table 4.12-5 Representative Vibration Source Levels for Construction Equipment

Equipment		PPV at 25 feet (in/sec) ^{1, 3}	Approximate L _v (VdB) at 25 feet ²
Pile Driver (impact)	Upper range	1.518	112
	Typical	0.644	104
Pile Driver (sonic)	Upper range	0.734	105
	Typical	0.170	93
Large Bulldozer		0.089	87
Caisson Drilling		0.089	87
Heavy-duty Trucks		0.076	86
Jackhammer		0.035	79
Small Bulldozer		0.003	58

Notes:

- 1 Where PPV is the peak particle velocity.
- 2 Where L_v is the RMS velocity expressed in vibration decibels (VdB), assuming a crest factor of 4.
- 3 Vibration levels can be approximated at other locations and distances using the above reference levels and the following equation: $PPV_{equip} = PPV_{ref} (25/D)^{1.1}$ (in/sec); where “PPV ref” is the given value in the above table, “D” is the distance for the equipment to the new receiver in feet.

Source: FTA 2006

As shown in **Table 4.12-5**, construction activities involving pile drivers can cause higher vibration levels with the potential to cause physical damage to nearby buildings. For example, at its upper range, an impact pile driver can produce 100 VdB at up to 100 feet from the source, which would exceed the FTA’s threshold for minor cosmetic damage to fragile buildings. However, whether or not this would occur would depend on the circumstances of individual construction projects, such as whether or not they involve pile driving and their proximity to any fragile building. Section 9.24.040 of the PDMC forbids any person to “make, cause, or continue to make or cause loud, excessive, impulsive, or intrusive sound, or noise that annoys or disturbs persons of ordinary sensibilities of a distance of greater than fifty feet from property line.” Although daytime construction noise would be exempt from this provision under Section 9.24.070 of the PDMC as discussed above, construction vibration impacts would be subject to City review. The City reviews the potential for construction vibration impacts before it issues building permits, and would require measures to ensure that physical damage to neighboring building would not occur before issuing a building permit.

Automotive traffic on roadways and train traffic on railways also produce groundborne vibration. These sources of vibration are not governed by the PDMC. As shown in **Table 4.12-5**, a loaded truck can produce 86 VdB at 25 feet, and 74 VdB at 100 feet. Such vibration levels may occasionally exceed the FTA’s 72 VdB threshold, but would not exceed the 100 VdB threshold. Although the proposed project may increase automotive traffic levels in the City of Palm Desert as the community grows in population and accommodates new business activity, the same policies within the

General Plan Update that would reduce impacts from auto traffic-related noise would also reduce impacts from auto traffic-related vibration.

Vibration levels from trains depend on the kind of train. Palm Desert already experiences freight rail traffic on the rail line that runs from northwest to southeast through the community along Interstate 10. The trains running on these lines are generally referred to as “heavy rail”. Vibration levels from heavy rail would be approximately 80 VdB (FTA, May 2006), which is lower than that of a loaded truck at 25 feet, and which would not exceed the 100 VdB threshold. Vibration from the railroad tracks is and would continue to be intermittent, and traffic on this freight rail line would not significantly increase due to implementation of the General Plan Update to the extent that it would expose persons to or generate excessive groundborne vibration or groundborne noise levels.

Future development in the city of Palm Desert consistent with the General Plan update would be subject to the City’s standards and review process as discussed above, which would ensure that such development would not expose persons to or generate excessive groundborne vibration or groundborne noise levels. This impact would be less than significant.

Mitigation Measure

None required.

Cumulative Impacts and Mitigation Measures

Considering the proposed project is a General Plan Update, which takes into account existing and potential development over approximately the next twenty years, the analysis of noise-related impacts contained within this chapter of the EIR is already cumulative in nature. Cumulative development in the City of Palm Desert would add population, business, and traffic to the community. This cumulative development would also increase noise levels in the community, especially in the vicinity of its busiest roadways. However, this impact has already been analyzed and determined to be less than significant under Impacts 4.12-2 and 4.12-3, which found that the General Plan Update’s potential to result in a substantial permanent increase in ambient noise levels in the project vicinity is less than significant with implementation of the policies of the proposed project and enforcement of the City’s Noise Ordinance. This impact is therefore **less than cumulatively considerable**, and no mitigation is necessary.

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4.13. Population, Employment, and Housing

Introduction

This chapter evaluates the potential environmental effects related to population, employment, and housing associated with implementation of the General Plan update. The analysis includes a review of the potential to induce population growth and the potential for displacement of people or housing. The updated General Plan Land Use & Community Character Element policies and the implementation actions presented in the Land Use & Community Character Element and the City Center Area Plan describe development and infrastructure practices that permit orderly growth while protecting existing residential neighborhoods.

NOP Responses: No comment letters in response to the Notice of Preparation (NOP) addressed concerns for population, employment, and housing.

Reference Information: Information for this resource chapter is based on numerous references, including the General Plan Update Technical Background Report (TBR), California Department of Finance) data, and other publicly available documents. The TBR prepared for the project is attached to this document as **Appendix 4.0**. The EIR, including the TBR, is also available electronically on the City's website (<http://www.cityofpalmdesert.org/our-city/general-plan-update>).

Environmental Setting

Demographic Profile

Population

The 2015 population of Palm Desert, one of nine incorporated communities in the Coachella Valley, was 49,335 (DOF 2016a). This makes Palm Desert the third largest city in the Coachella Valley and the twelfth largest city in Riverside County, accounting for 2.2 percent of the county's total population.

The California Department of Finance (2012, 2016b) estimates that Palm Desert added 9,262 residents, representing a 22.5 percent level of growth, between 2000 and 2014. This translates to an average annual population growth of 662 persons per year over the 14-year period. This rate of growth was more rapid than the state's but was significantly less than the growth rate experienced in Riverside County over the same period. Between 2000 and 2014, Riverside County grew by 734,580 people, representing 47.5 percent growth. California, Riverside County, and Palm Desert population growth from 2000 through 2014 is depicted in **Table 4.13-1**.

Table 4.13-1 Population Growth

Year	California	Riverside County	Palm Desert
2016	39,255,883	2,347,828	49,335
2015	38,907,642	2,317,924	48,835
2014	38,340,074	2,279,967	48,494
2013	37,984,138	2,255,653	48,282
2012	37,668,804	2,234,209	49,786
2011	37,427,946	2,205,731	48,957
2010	37,223,900	2,179,692	48,445
2009	36,966,713	2,140,626	47,993
2008	36,704,375	2,102,741	47,453
2007	36,399,676	2,049,902	46,867
2006	36,116,202	1,975,913	47,270
2005	35,869,173	1,895,695	47,422
2004	35,570,847	1,814,485	43,899
2003	35,163,609	1,730,219	43,204
2002	34,725,516	1,655,291	42,279
2001	34,256,789	1,589,708	41,685
2000	33,873,086	1,545,387	41,155

Source: DOF 2016a, 2016b

Housing Characteristics

There are approximately 38,167 housing units in Palm Desert (DOF 2016a). These units are in residential neighborhoods located throughout the city. Detached single-family dwellings are the predominant type of residence.

Consistent with the prevalence of seasonal occupancy, Palm Desert has a significantly higher occurrence of multi-unit housing than is found in the county as a whole. Structures with 5 to 9 units make up just under 6 percent of the city's total housing stock compared to 4 percent in the county as a whole. Palm Desert has significantly higher proportion of multi-unit properties in every category in comparison to the county. In most parts of California, multi-unit housing tends to produce housing overcrowding with large numbers of occupants per room; however, in Palm Desert there is significantly less housing overcrowding (defined as more than one occupant per room) than is observed in Riverside County as a whole. Slightly more than 2 percent of all of the units identified in the 2012 American Community Survey in Palm Desert identified as being overcrowded. This compares to over 7 percent for the county overall. The prevalence of single-person households and seasonal occupancy explains both the relatively higher proportion of multi-unit structures in Palm Desert and the low rates of observed overcrowding.

The number of housing units in Palm Desert increased by 1,094 units, or 2.9 percent between 2010 and 2015 (DOF 2016a).

Approximately 40 percent of housing units in Palm Desert were vacant in 2016 (DOF 2016a), compared to 13.9 percent countywide. According to the California Department of Housing and Community Development (2000), a housing vacancy rate of 5 percent is considered normal. Vacancy rates below 5 percent indicate a housing shortage in a community. Palm Desert's higher than normal vacancy rate seems to indicate either an oversupply of housing or seasonal 'second' homes that are vacant for much of the year.

In 2016, the city had 49,027 households with an average household size of 2.16 persons (DOF 2016a). Household size was smaller than in Riverside County as a whole (3.24 persons) (DOF 2016a).

Compared to most other jurisdictions in the Coachella Valley, Palm Desert has a higher proportion of non-family households. Approximately 54 percent of Palm Desert households comprised families in 2012, while 46 percent were non-family households or households with just one person. The only jurisdiction in the area to have a higher rate of non-family households was Palm Springs (TBR).

33.8 percent of the total dwelling units in the city were built between 1980 and 1989. Of the existing dwelling units in Palm Desert, 202, just over 0.5 percent, were built prior to 1940, compared to 2.1 percent for Riverside County as a whole (TBR).

Employment

As of 2011, there were 15,977 residents of Palm Desert in the labor force, while the city's businesses employed a total of 25,630 people. While most industries have similar numbers for residents and employees, the Retail Trade; Accommodation & Food Service; and Administration & Support, Waste Management positions had higher rates of nonresidents (US Census Bureau 2011).

Of employed residents, the largest age group is 30–54 (53 percent), while those over 55 or under 29 each made up approximately one-quarter of the employed residents. In comparison, for those who are employed in Palm Desert (and may or may not live in the city), there is a higher proportion of employees under the age of 29 (34 percent) and a smaller share of employees over the age of 55 (US Census Bureau 2011).

The largest segment of employees earns between \$1,251 and \$3,333 per month (44 percent), followed by less than \$1,250 (31 percent) and those earning more than \$3,333 (25 percent) (US Census Bureau 2011).

Jobs/Housing Balance

The jobs to housing ratio is a measure that can reveal whether a community is primarily an employment center or a residential center often referred to as a bedroom community. Jobs-rich areas are net importers of employees from other areas because they have more jobs than resident workers.

In Palm Desert, a small number of people both live and work in the city (3,233), while the majority of employees commute in from other communities (87 percent), and the majority of residents commute to communities outside of Palm Desert for work (80 percent).

Growth Trends and Projections

The General Plan update anticipates and plans for growth in the city in a flexible manner, understanding that ultimately market forces, demographics, and migration will dictate how much growth the city actually realizes. As identified in Chapter 3.0, Project Description, the updated General Plan anticipates growth as follows:

Table 4.13-2 Palm Desert Forecasts for 2040

	2040
Population	61,691
Households	31,401
Jobs	50,536

Regulatory Setting

State and local laws, regulations, and policies pertain to population, employment, and housing in the planning area. They provide the regulatory framework for addressing all aspects of population, employment, and housing that would be affected by adoption and implementation of the General Plan update. The regulatory setting for population, employment, and housing is discussed in further detail in the TBR (**Appendix 4.0**). Key regulations used to reduce the potential impacts of the General Plan update are summarized below.

State

California Government Code

California Government Code Section 65300 describes the scope and authority of local jurisdictions to prepare, adopt, and amend general plans. Communities prepare general plans to guide the long-term physical development of the jurisdiction and any land within the jurisdiction's sphere of influence. At a minimum, the California Government Code requires general plans to address land use, circulation, housing, noise, conservation, open space, and safety issues.

Additionally, the California Government Code assigns equal importance to each general plan element and requires general plan elements to be internally and externally consistent, meaning that policies between elements should not be in conflict with one another, nor should subsequent plans or implementation programs, such as the zoning ordinance, capital improvement plan, or specific plans, conflict with general plan policies.

The housing portion of the general plan is expected to analyze existing and projected housing needs, examine special housing needs, evaluate the effectiveness of current goals and policies, identify constraints to providing affordable housing, identify land available in the jurisdiction to accommodate the jurisdiction's share of the regional housing need, and identify opportunities to incorporate energy conservation measures into the housing stock. The housing element is the only portion of the general plan that has a statutory requirement to be reviewed and certified by a state agency and must be updated within a specified time period on a 4- or 8-year cycle.

California Health and Safety Code

In addition to the regulations set forth in the California Government Code, provisions related to housing and local policy are set forth in the California Health and Safety Code under Division 13, Housing, and Division 24, Community Development and Housing. Division 13 provides rules and regulations related to employee housing, manufactured housing, mobile home parks, elderly housing, access for physically handicapped persons, and building standards for new, existing, and historic structures to ensure the health, safety, and welfare of all California residents.

Regional and Local

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is the metropolitan planning organization (MPO) that represents 6 counties and 191 cities in Southern California. As the MPO for the region, SCAG is responsible for analyzing the region's transportation system, the future of growth in the region, and potential funding sources to address housing, transportation, and livability issues for the 18 million residents that call Southern California home.

As part of the Regional Transportation Planning (RTP) process that occurs every 4 years, SCAG is responsible for determining the growth in housing, employment, and population across the region and for identifying efficient and effective methods to accommodate that growth. SCAG estimates that by 2035, the region will add more than 4 million residents, primarily in Riverside and San Bernardino counties. As the agency charged with identifying population, housing, and employment projections and trends, SCAG also leads the Regional Housing Needs Allocation (RHNA) process to identify the amount of growth, at a variety of income levels, that each jurisdiction in the region will need to accommodate within the housing element planning period, and assist jurisdictions in analyzing the existing and future housing needs of their community.

Palm Desert General Plan

To comply with state law, the Palm Desert General Plan Housing Element was most recently updated in 2013. The streamlined update to the Housing Element was reviewed and updated to reflect the current status of housing needs, available land, constraints, program implementation, and compliance with other statutory requirements enacted since the element was adopted.

Palm Desert Municipal Code

Chapter 25, Zoning, of the City's Municipal Code serves as the implementation component of the General Plan to ensure the orderly development of the city and to protect, promote, and enhance the public health, safety, and general welfare. The Zoning Ordinance establishes standards and procedures for development in each zoning district including height, setback, density, yard, parking, walls, landscaping, and use standards.

Impacts and Mitigation Measures

Analysis Approach

The analysis of impacts is based on the likely consequences of adoption and implementation of the General Plan update, compared to existing conditions. The following analysis of population, employment, and housing impacts is qualitative and based on available demographic and economic data for the Planning Area, along with review of regional information. The analysis assumes that all future and existing development in the Planning Area complies with applicable laws, regulations, design standards, and plans. An analysis of cumulative impacts uses qualitative information for the Planning Area and the region.

Draft General Plan Update Policies and Implementation Actions

The General Plan update policies and implementation actions that reduce potential population, employment, and housing impacts include those listed below.

Policies

Land Use & Community Character Element

- **Policy 3.3: Variety of types of neighborhoods.** Promote a variety of neighborhoods within the City and ensure that neighborhood types are dispersed throughout the City.
- **Policy 3.4: Balanced neighborhoods.** Within the allowed densities and housing types, promote a range of housing and price levels within each neighborhood in order to accommodate diverse ages and incomes. For development projects

larger than five acres, require that a diversity of housing types be provided and that these housing types be mixed rather than segregated by unit type.

- **Policy 3.5: Housing affordability.** Ensure affordable housing is distributed throughout the City to avoid concentrations of poverty and to be accessible to jobs.
- **Policy 3.6: Senior housing.** Encourage the development of senior housing only in neighborhoods that are accessible to public transit, commercial services and health and community facilities.
- **Policy 8.1: Long-term economic development.** Support the development and implementation of long-term economic development strategies that seek to establish and keep new businesses.
- **Policy 8.2: Regional jobs center.** Encourage economic development strategies, especially those that leverage the College of the Desert, California State University, and University of California, which will expand the number of living-wage paying jobs within the city.
- **Policy 8.3: Jobs-housing balance.** Strive to improve the jobs-housing balance in the city by actively pursuing new employment generating uses for the city.
- **Policy 8.4: University housing.** Encourage the development of affordable housing to ensure an adequate supply of dedicated housing for students and university and college faculty.
- **Policy 9.2: Efficient growth.** Manage growth in a manner that is fiscally sustainable and protects and/or enhances community value.

Implementation Actions

- **Action 2.17.** Regularly review and, as needed, update the impact fees to keep pace with changing economic conditions and community
- **Action 2.18.** Develop and provide incentives to assist developers in revitalization and rehabilitation of existing structures, uses and properties through
- **Action 2.19.** Every five years, review and adjust, as needed, the General Plan's population and employment capacities to meet changes in economic and demographic conditions.
- **Action 2.20.** Develop a plan to encourage businesses to relocate to Palm Desert to bridge the gap between June and September with year-round.
- **Action 4.4.** Develop creative and innovative zoning and incentives to promote a variety of high-quality residential units that will also encourage a balance between housing and jobs.
- **Action 4.5.** Revise zoning to encourage inclusive residential housing products.

Thresholds of Significance

For the purposes of this EIR, impacts on population, employment, and housing are considered significant if adoption and implementation of the General Plan update would:

Threshold	Determination
1. Induce substantial population growth in an area, either directly or indirectly	Less Than Significant
2. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere	Less Than Significant
3. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere	Less Than Significant
4. Cumulative effects	Less Than Significant

Impacts and Mitigation Measures

IMPACT 4.13-1 Induce Substantial Population Growth. *Implementation of the General Plan update would guide future development and reuse projects in the city in a manner that would not substantially increase population in Palm Desert either directly or indirectly. Providing for the orderly growth of Palm Desert is a basic purpose of the General Plan update, which would direct expected regional growth. This would be a **less than significant** impact.*

In Riverside County, forecasting of population and demographic trends is performed by the local council of governments, the Southern California Association of Governments. SCAG publishes forecast data demographic and population data for Riverside County and in 2014, published a population forecast report that projected a 2040 population of 61,700 residents in Palm Desert. Additionally, SCAG has projected 31,400 households and 53,600 jobs in Palm Desert for the year 2040 (see **Table 4.13-3**).

The updated General Plan includes land use designations that would allow new residential uses and nonresidential development, generally focused on revitalizing the Highway 111 corridor into a downtown-type City Center and developing the area around the Cal State/UC campus with a mix of housing types and new commercial opportunities. Land Use & Community Character Element Policies 3.3, 3.4, 3.5, 3.6, and 9.2 would ensure affordable housing with a variety of types of neighborhoods and manage growth in a manner that is fiscally sustainable and protects and/or enhances community value. **Table 4.13-1** identifies a current population of 49,335 in Palm Desert. The General Plan update proposes a land use concept that anticipates and plans for growth in the city in a flexible manner, understanding that ultimately market forces, demographics, and migration will dictate how much growth the city actually realizes. As identified in Chapter 3.0, Project Description, the General Plan forecasts a 2040 population of 61,691 (also see **Table 4.13-2**). The General Plan further forecasts 31,401 households and 50,536 jobs. **Table 4.13-3** compares the SCAG projections with the forecasts of the proposed General Plan update.

Table 4.13-3 2040 Forecast Comparisons

Palm Desert Year 2040	General Plan Update Forecasts ¹	SCAG Projections ²	Difference
Population	61,691	61,700	-9
Households	31,401	31,400	+1
Jobs	50,536	53,600	-3,064

Sources: ¹EIR Chapter 3.0, Project Description; ²SCAG 2014

As shown, the proposed General Plan land use concept would result in a population growth potential nearly identical to, and therefore consistent with, that projected by SCAG. Planning for the SCAG estimated rate of growth ensures that the General Plan will accommodate development and ensure the availability of land to accommodate future conditions. The land use concept in the updated General Plan has been developed to accommodate projected population increases and make sure Palm Desert is strategically positioned to manage future growth and to capture positive growth opportunities. The proposed Land Use Map and policy orientation of the updated General Plan seek to make an efficient and appropriate use of land.

The physical environmental impacts associated with population growth consists of traffic (commuting for jobs) and the related impacts of traffic noise, air quality, and greenhouse gas emissions. These environmental issues are addressed elsewhere in this EIR. Adoption and implementation of the updated General Plan would not result in a substantial increase in population growth since the development potential anticipated by the General Plan would be consistent with the SCAG 2040 forecast for population and employment growth.

This impact would be **less than significant**.

Mitigation Measures

None required.

IMPACT 4.13-2 **Displace People or Housing.** *Subsequent land use activities associated with implementation of the General Plan update would not result in the displacement of substantial numbers of housing or persons necessitating the construction of replacement housing elsewhere. This is considered a **less than significant** impact.*

The intent of the General Plan update is to accommodate anticipated growth through efficient use of existing infrastructure and public services, thus minimizing the need for new or significantly expanded infrastructure that could be the impetus for the removal of housing units and/or businesses. Where new infrastructure will be required, roadway sizing and alignments set forth in the updated General Plan were designed to largely avoid impacts to existing developed areas.

In addition, while implementation of the General Plan update does not directly result in the construction of any new development, the updated General Plan focuses future growth as infill development along the Highway 111 corridor and around the Cal State/UC campus. New development and infill development would not result in displacement of housing or people. Furthermore, as previously stated, approximately 40 percent of housing units in Palm Desert were vacant in 2016 (DOF 2016a); therefore, it is unlikely that substantial numbers of housing or people would be permanently displaced or that such displacement would necessitate the construction of replacement housing elsewhere.

The General Plan update will not displace substantial numbers of housing units or people and will not necessitate the construction of replacement housing elsewhere. No demolition or substantial change in land use designation that would result in the displacement of residents is proposed in the General Plan. Therefore, impacts associated with implementation of the General Plan update relative to displacement of a substantial number of persons or housing are considered **less than significant**.

Mitigation Measures

None required.

Cumulative Impacts and Mitigation Measures

The cumulative setting condition includes the unincorporated areas surrounding Palm Desert, as well as the larger Riverside County region, including La Quinta, Bermuda Dunes, Rancho Mirage, and Indian Wells. The cumulative impact analysis herein focuses on whether the updated General Plan's contribution to projected regional population growth would result in a cumulatively considerable environmental impact. The General Plan's impact would be cumulatively considerable if, when considered with other existing, approved, proposed, and reasonably foreseeable development in the cumulative setting, it would contribute to substantial regional population growth.

IMPACT 4.13-3 Cumulative Effects on Population, Employment and Housing.
*Subsequent land use activities associated with implementation of the General Plan update, in addition to existing, approved, proposed, and reasonably foreseeable development, could result in a cumulative increase in population and housing growth in Palm Desert as well as in the surrounding region, along with associated environmental impacts. Development would not displace people or housing necessitating the construction of housing elsewhere. This cumulative increase in population and housing is consistent with that projected by SCAG. Therefore, the cumulative impact is **less than cumulatively considerable**.*

As described in Impact 4.13-1, the population and employment growth instigated by the updated General Plan would be consistent with the SCAG forecast for 2040. Therefore, the General Plan update's contribution to the potential for cumulative inducement of population growth would not be cumulatively considerable. In addition, proposed policies and implementation actions are designed to best manage and accommodate the city's growth. The physical environmental effects of the city's growth on the region are evaluated in the technical resource chapters of this EIR.

Furthermore, changes in Palm Desert and the surrounding region through 2040 could result in displacement of people or housing through the expansion of nonresidential land uses, infrastructure improvements such as roadway, utility, or transit expansion, or other changes. However, as described in Impact 4.13-2, implementation of the General Plan update would not displace people or housing in the Planning Area, and the regional effects of the changes forecast (including job and population growth in the Planning Area) would not make a considerable contribution. Therefore, cumulative impacts would be **less than cumulatively considerable**.

Mitigation Measures

None required.

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4.14. Public Services and Utilities

Introduction

This chapter identifies existing conditions for public services and utilities, as well as related regulations and key issues in Palm Desert. Topics addressed include fire protection, police protection, water supply and use, wastewater, storm drainage, solid waste, schools, and parks and recreation.

NOP Comments: In response to the Notice of Preparation (NOP), a comment was received from the Riverside County Department of Waste Resources regarding concern that the General Plan update may have the potential to generate a substantial amount of waste that might adversely affect solid waste facilities (see **Appendix 1.0-1**). No comments regarding other public services and utilities were received in response to the NOP.

Reference Information: Information for this resource chapter is based on numerous references, including service agency websites and publicly available documents. The Technical Background Report (TBR) prepared for the General Plan update is attached to this document as **Appendix 4.0**. The EIR, including the TBR, is also available electronically on the City's website (<http://www.cityofpalmdesert.org/our-city/general-plan-update>).

Fire Protection and Emergency Medical Services

Environmental Setting

Fire protection, first response emergency medical services, and natural disaster preparedness services in Palm Desert are provided by the Riverside County Fire Department (RCFD), in cooperation with the California Department of Forestry and Fire Protection (Cal Fire). The City contracts with Riverside County for fire protection and emergency services and is also a member of the Cove Communities Services Commission, which includes the Cities of Palm Desert, Rancho Mirage, and Indian Wells. The commission meets regularly to discuss mutually related public safety matters. The RCFD operates under a sound, integrated, and cooperative regional fire protection system throughout Riverside County. Each city has access to and benefits from the services provided by fire stations in other communities. The RCFD provides firefighters, paramedics, fire inspectors, vehicles, maintenance of fire stations and vehicles, and review of commercial and housing development plans.

The Office of the Fire Marshal provides services aimed at reducing the risk of fire and injuries to the public. The office consists of the deputy fire marshal, one fire safety specialist, two fire safety inspectors, and an office assistant. Staff ensures public safety is maintained by accomplishing the following duties:

- Recommends adoption and enforces codes and ordinances relative to fire and life safety issues associated with commercial, industrial, and residential development.
- Coordinates the inspection of commercial buildings, and enforces hazardous materials regulations.

- Works with developers and city planning departments on development projects impacting fire protection services, from conception through planning process approval.
- Conducts new construction inspections, and State Fire Marshal–required inspections (including high rise, educational schools, board and care, and day-care inspections), enforcing applicable fire codes and ordinances.
- Interacts with developers, architects, and engineers, assisting them in meeting the fire protection requirements for buildings and developments by reviewing all architectural blue prints, development plans, and proposals submitted.
- Coordinates the business inspection program, so all the businesses in Palm Desert are evaluated for fire and life safety hazards.

Stations and Staffing

There are currently three fire stations within the Palm Desert city limits—Station No. 33, No. 67, and Station No. 71. Additional fire support is available, when necessary, from Station No. 55 in Indian Wells and from Stations No. 50 and No. 69 in Rancho Mirage. The RCFD operates under a Regional Fire Protection Program, which allows its fire stations to actively support one another regardless of geographic or jurisdictional boundaries. The program supplies the community with the most effective and efficient method of emergency response and allows sharing of resources such as specialized equipment and personnel.

According to the TBR, Palm Desert has a total Fire Department staffing of 44 positions (not including the shared ladder truck). Table 15.1 of the TBR (see **Appendix 4.0**) shows details on staffing and equipment at each station.

Engine 33 is the only Advanced Life Support (ALS) engine in the city. As such, this engine will always respond to calls with a paramedic on board. ALS services can be provided immediately even if the medic unit has not yet responded. The other two engines in Palm Desert are currently Basic Life Support (BLS) engines, but they are proposed to be phased into an ALS configuration at a later date. Ladder Truck 33 is shared with the Cities of Indian Wells and Rancho Mirage per the Cove Communities Services Commission Joint Powers Agreement.

Emergency Medical Service and Fire Service Demand & Response Times

RCFD services also include regional communications and dispatch. The department serves around 1,360,000 residents in an area spanning 7,200 square miles. In 2013, the RCFD responded to 133,536 total incidents, with 8,172 calls for service in Palm Desert. The average en-route-to-on-scene response time was 3.6 minutes, with 86.2 percent of call response under 5 minutes.

Insurance Services Office Rating

The Insurance Services Office (ISO) property class rating is important to a community, as many insurance companies base the fire risk portion of property insurance premiums on the community's ISO rating. The ISO uses a 1 to 10 rating scale, with Class 1 being the best level of service (and lowest fire insurance premium cost) and Class 10 representing no service at all. According to the TBR, the RCFD fire stations in Palm Desert have an ISO Class 3 rating.

Regulatory Setting

Local laws, regulations, and policies pertain to fire protection and emergency medical services in the Planning Area. The regulatory framework for fire protection and emergency medical services is discussed in further detail in the TBR (**Appendix 4.0**) of this EIR. The following summarizes key regulations used to reduce the potential environmental impacts of implementing the General Plan update.

Local

Palm Desert Municipal Code: The City's Municipal Code includes regulations and standards related to development and operations. Title 2, Administration and Personnel, contains bylaws and administration procedures for City advisory committees (including Emergency Preparedness) and commissions (including the Planning Commission and Public Safety Commission). Title 15, Building and Construction, establishes building and construction standards to protect the public health, safety, and welfare through fire prevention, abatement of dangerous buildings, seismic strengthening, and enforcement of mechanical, plumbing, and electrical codes.

Impacts and Mitigation Measures

Analysis Approach

Evaluation of potential fire protection and emergency medical service impacts was based on information provided by the Riverside County Fire Department, as well as a review of the applicable fire codes and regulations, the Palm Desert Municipal Code, and other relevant literature.

Draft General Plan Update Policies and Implementation Actions

The following General Plan update policies and implementation actions address fire protection and emergency medical services:

Policies

Safety Element

- **Policy 4.1: Fire Preparation.** Maintain optimal readiness and response service in coordination with Riverside County and other agencies.
- **Policy 4.2: Fire Hazard Severity Zones.** Adopt and implement fire mitigation standards for areas designated as High and Very High Fire Hazards Severity Zones per Cal Fire.
- **Policy 4.3: Brush Clearance.** Require new development and homeowners associations to maintain brush clearance criteria that meets 120% of the current state requirement for fire hazard severity zones in the city.
- **Policy 4.4: Inventory of Structures for Fire Risk.** Prepare an inventory of all structures and ownership information for structures in each fire hazard severity zone in the city and the SOI.
- **Policy 4.5: Fire Education.** Disseminate information on fire risks and minimum standards, including guidance for new development in the wildland-urban interface and fire hazard severity zones.

- **Policy 4.6: Future Emergency Service Needs.** Require new developments and homeowners associations along the wildland urban interface to house the proper equipment and infrastructure to respond to wildland fire incidents.

Public Utilities & Services Element

- **Policy 7.1: Quality of service.** Provide courteous, responsive, and efficient police and fire services.
- **Policy 7.2: Review of new development.** Work with the Riverside County Sheriff's Department and the Riverside County Fire Department to review and modify development proposals to incorporate defensible space, Crime Prevention Through Environmental Design (CPTED), and other public safety design concepts into new development.
- **Policy 7.3: Serving new growth.** Expand police and fire service coverage in conjunction with new growth to ensure quality of service does not diminish.
- **Policy 7.4: Water pressure.** Ensure that sufficient water service and pressure is available throughout the city for use in firefighting.
- **Policy 7.5: Recycled water for fire suppression.** Consult with the CVWD to support efforts to expand reclaimed water supply from municipal wastewater for fire suppression needs.
- **Policy 7.6: Increasing fire hazards.** Encourage Cal Fire and Riverside County Fire Department to explore the trends of increasing fire hazards associated with the drought and increasing temperatures and to develop new fire hazard mitigation strategies.
- **Policy 7.7: Emergency preparedness.** Work with Riverside County Fire Department, the Riverside County Sheriff's Department and the Palm Desert Police Department, along with residents to ensure that sufficient emergency plans and resources are established and known by all stakeholders.
- **Policy 7.8: Fire and emergency services.** Continue to coordinate with Riverside County Fire Department to ensure continued excellent fire and emergency services.

Implementation Actions

- **Action 2.17.** Regularly review and, as needed, update the impact fees to keep pace with changing economic conditions and community needs. Adopt and update the City's authority for collection of development fees within the full extent allowed under state law.
- **Action 2.38.** Update the City's public GIS database with information on the extent and potential impact of seismic, geotechnical, fire, and flood hazards occurring in the city and the SOI. All future developments will be required to submit their data for incorporation into this database.
- **Action 2.39.** Consult Riverside County and other jurisdictions to monitor and update the City's LHMP.
- **Action 2.40.** Update the City's Critical Infrastructure/Facilities inventory included in the Emergency Operations Plan and Local Hazard Mitigation Plan.

- **Action 2.42.** Identify and analyze vulnerabilities of key privately owned critical facilities, such as hospitals and businesses, in the city that should remain in operation after an emergency event.
- **Action 2.43.** Encourage participation of representatives from local schools, universities, hospital facilities, and other local organizations in regional emergency planning efforts.
- **Action 3.19.** Consult with the RCFD Office of Emergency Services, the CVWD, Southern California Edison, the Southern California Gas Company, the Imperial Irrigation District, and other utilities and agencies, as appropriate, to develop and disseminate public education materials advising visitors, residents, and local businesses of appropriate responses in preparation for and during an emergency.
- **Action 4.17.** Incorporate new fire hazard severity zones and related state standards from Cal Fire.

Thresholds of Significance

For the purposes of this EIR, impacts on fire protection and emergency medical services are considered significant if adoption and implementation of the General Plan update would:

Threshold	Determination
1. Result in substantial adverse physical impacts associated with the provision of or need for new or physically altered fire-related facilities or services, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection and emergency services	Less Than Significant
2. Cumulative impacts on fire protection	Less Than Cumulatively Considerable

Impacts and Mitigation Measures

IMPACT 4.14.1-1 **Impacts on Fire Protection.** *Implementation of the General Plan update would result in an increase in population in the city, which would increase demand for fire protection services and potentially result in the need for additional and/or expanded fire protection facilities. However, General Plan update policies and actions would require the City to continue to review fire protection facility and staffing needs and provide appropriate adequate funding to meet those needs. Therefore, this impact would be **less than significant**.*

Fire protection and emergency medical services for Palm Desert will continue to be provided by the RCFD. The potential population increase projected under the General Plan would increase the demand for fire protection and emergency services. Proposed General Plan Safety Element Policy 7.2 and Policy 7.8 direct the City to work with the RCFD through the review of proposed development projects to ensure fire safety issues are considered. These provisions will allow adequate levels of personnel and equipment to respond to routine incidents and to larger events. As previously stated, the RCFD’s average en-route-to-on-scene response time is 3.6 minutes, with 86.2

percent of call response under 5 minutes. The RCFD currently has an ISO Class 3 rating, which is considered above average. In addition, RCFD standards hold that urban development, such as that anticipated under the updated General Plan, should be located no more than 3 miles from a county fire station.

There are currently three fire stations—Stations No. 33, No. 67, and No. 71—within the Palm Desert city limits. Additional fire support is available, when necessary, from Station No. 55 in Indian Wells and from Stations No. 50 and No. 69 in Rancho Mirage. The RCFD operates under a Regional Fire Protection Program, which allows its fire stations to actively support one another regardless of geographic or jurisdictional boundaries.

In addition, the updated General Plan contains several policies that aid in fire prevention and protection. For instance, Safety Element Policy 4.2 mandates that the City adopt and implement fire mitigation standards for areas designated as High and Very High Fire Hazards Severity Zones per Cal Fire. Policy 4.3 requires new development and homeowners associations to maintain brush clearance criteria that meets 120 percent of the current state requirement for fire hazard severity zones in the city, and Policy 4.6 requires new developments and homeowners associations along the wildland-urban interface to house the proper equipment and infrastructure to respond to wildland fire incidents. Future development is also subject to compliance with the 2013 California Building Code (or the most current version) and the 2013 California Fire Code (Part 9 of Title 24 of the California Code of Regulations), which would aid in reducing the demand on fire protection services by requiring fire protection detection systems, proper fire flow, and use of appropriate construction materials. Title 15 of the City Municipal Code establishes building and construction standards to protect the public health, safety, and welfare through fire prevention.

All residential and nonresidential development projects in Palm Desert are subject to development impact fees to mitigate the impacts of new development. Development impact fees finance public facilities and service improvements, including fire protection capital and facilities needs. Action 2.17 requires the City to regularly review and, as needed, update impact fees to keep pace with changing economic conditions and community needs.

The typical environmental effects from the construction and operation of a fire protection facility may involve issues with noise (sirens), air quality (during the construction of the facility), biological resources (depending on location), cultural resources (depending on location), public utilities (demand for electric, water, and wastewater service), and traffic on a local level due to the interruption of traffic light timing by fire engines. The provision of additional facilities in the future would be required to undergo project-specific environmental review at such time as an application for a project is submitted.

Compliance with the California Fire Code and implementation of the above General Plan policies and actions would ensure the provision of adequate fire protection services. Project-level CEQA review of future fire protection facilities would identify and mitigate significant environmental impacts associated with the provision of additional fire protection personnel and facilities. Therefore, impacts associated with fire protection services would be reduced to a **less than significant** level.

Mitigation Measures

None required.

Cumulative Impacts and Mitigation Measures

The cumulative context for fire protection and emergency medical services is generally specific to the Planning Area rather than regional. The cumulative context for impacts discussed below includes projected regional growth in surrounding cities and in Riverside County, as fire protection and emergency medical services may travel beyond the Planning Area.

IMPACT 4.14.1-2 **Cumulative Impacts on Fire Protection.** *Implementation of the General Plan update, in combination with other existing, planned, proposed, approved, and reasonably foreseeable development in Palm Desert, would increase the demand for fire protection and emergency medical services and thus require additional staffing, equipment, and related facilities under cumulative conditions. The provision of these facilities could result in environmental impacts. The General Plan update's contribution to the need for expanded fire protection and emergency medical services is considered **less than cumulatively considerable** given requirements for project-level CEQA review of future fire protection and emergency medical services facilities, along with compliance with the California Fire Code.*

Future regional growth would result in increased demand for fire protection and emergency medical services throughout Riverside County. This cumulative regional demand could result in increased requests for mutual aid from the RCFD, and growth in Palm Desert could result in increased requests for mutual aid. The need for additional fire protection facilities associated with the updated General Plan would be limited to facilities needed to serve the city as required under the contract agreement. It is not anticipated that increased mutual aid requests would result in the need for additional fire protection facilities because mutual aid would be furnished via existing facilities, equipment, and personnel at the time of the mutual aid request. In addition, in the case that there is a need for future projects associated with fire protection and emergency medical services facilities, the development of these facilities would be subject to project-level CEQA review at such time as an application for a project is submitted to the appropriate agency. Furthermore, all new development in the county, including in Palm Desert, would be subject to the California Fire Code, which would help to prevent and minimize the occurrence of fires, thus increasing the ability of the RCFD and other fire service providers to provide adequate fire protection services.

Subsequent project-level CEQA review of future facilities, along with compliance with the California Fire Code, would ensure that cumulative environmental impacts associated with the continued provision of fire protection and emergency medical response services would be **less than cumulatively considerable**.

Mitigation Measures

None required.

Law Enforcement Services

Environmental Setting

Police Protection

The Palm Desert Police Department (PDPD), served under contract by the Riverside County Sheriff's Department, provides police protection services to preserve the peace and prevent crime and disorder by enforcing state laws and city ordinances in the Palm Desert.

Units and Staffing

The PDPD consists of the Patrol Division, as well as a number of specialized divisions and teams. According to the TBR, the department currently operates with 81 staff members: 36 sworn patrol staff, approximately 29 personnel dedicated to special teams, and 16 contract support staff. Based on the city's current population (49,335 as of May 2016, per the California Department of Finance), Palm Desert has an officer-to-population ratio of 1.4 sworn officers per 1,000 residents.

Patrol Division

The Patrol Division responds to all calls for police placed through the 911 system or nonemergency telephones. Patrol officers handle the initial investigation of thefts, burglaries, robberies, assaults, and other service calls. The PDPD promotes the concept of community-oriented policing by assigning officers to regular beats. The city is divided into five service or "beat" areas: 30 Beat covers the business corridor along Highway 111; 32 Beat covers the southern portion of the city; 34 Beat covers the portion of the city east of Cook Street and south of Country Club Drive; 36 Beat covers the western portion of the city west of Cook Street and south of Country Club Drive; and 38 Beat covers the portion of the city north of Country Club Drive.

Investigations and Evidence Bureau

The PDPD Investigations and Evidence Bureau serves the three cities in the Cove Communities Services Commission. The unit investigates robberies, assaults, sex crimes, child abuse, and property crimes, as well as missing persons, runaways, and domestic violence incidents.

Traffic Division

The PDPD Traffic Division is a contract law enforcement division responsible for investigating traffic collisions and conducting traffic enforcement and education programs throughout the city. The division supports the Patrol Division by handling traffic issues and providing additional emergency response support for critical accidents. The Traffic Division includes eight motorcycle enforcement program officers, one commercial vehicle enforcement officer to investigate overweight, unsafe, or improper loads on commercial vehicles, and one community services officer.

Special Enforcement Team

The PDPD Special Enforcement Team (SET) serves to augment the department's patrol division and further its mission of proactive prevention. In conjunction with the Business District Team and Crime Prevention Program officers, SET officers conduct intensive follow-up investigations of burglaries, thefts, and other local crimes to keep patrol officers in the field and available for emergency calls. Each beat is covered by a SET member to devote time to incidents occurring in that area. SET officers often provide security for special/community events and interact with Palm Desert residents

on a regular basis. In addition, SET targets specific crimes that affect all three Cove Communities by collaborating with SET officers from Indian Wells and Rancho Mirage to identify, investigate, and target criminals committing crimes

K-9 Officer

Palm Desert has a canine, or K-9, officer used to help with searching for missing or lost persons, tracking criminals from crime scenes, assisting with fleeing or armed suspects, and searching for evidence and narcotics.

Business District Team

The Business District Team (BDT) was added in 2006 to conduct high-visibility patrol and handle service calls for Palm Desert's business district (30 Beat). The business district area includes the El Paseo corridor, the Westfield Mall, the Highway 111 corridor, and the Desert Crossing shopping center. The BDT patrols the area on foot and bicycle. The BDT also conducts undercover operations and conducts the Homelessness Outreach & Criminal Transient Enforcement program to reduce the active criminal transient population in Palm Desert.

Burglary Suppression Unit

The Burglary Suppression Unit, established in July 2011, works to reduce thefts in Palm Desert by investigating burglary-related crimes, apprehending suspects, recovering stolen property, and educating the public on crime prevention.

School Resources Offices

The City of Palm Desert funds two school resources officer (SRO) positions, one for Palm Desert Charter Middle School and one for Palm Desert High School. The SROs work with school officials, teachers, students, and the Desert Sands Unified School District campus security officers to create a safe learning environment, educate students and staff on public safety issues, and combat juvenile delinquency.

Coachella Valley Violent Crime Gang Task Force

The Coachella Valley Violent Crime Gang Task Force, comprising members from various federal and local law enforcement agencies, works to promote safe and secure neighborhoods, free of violent crime and gang activity. Its duties include intervention and education, gang suppression patrols, and criminal enterprise investigations.

Coachella Valley Narcotics Task Force

The Coachella Valley Narcotics Task Force, comprising members of various state, county, and local law enforcement agencies, works to diminish the availability and use of illegal drugs and apprehend offenders in Coachella Valley cities and adjacent unincorporated areas of Riverside County.

Stations

There is one main sheriff's station in the city, located at 73-705 Gerald Ford Drive, serving the cities of Palm Desert, Indian Wells, and Rancho Mirage and the unincorporated areas of Riverside County. The City also leases the former sheriff's station, connected to City Hall in the Civic Center Park, to Riverside County for its Coachella Valley dispatch operation and investigation bureau. This is the only operating substation in the city, but it is not open to the public.

Calls for Service and Response Times

For PDPD response, a priority code of 1 to 4 is assigned to each call by the dispatch center, with 1 being the highest priority. For 2013, the department reported 25,020

calls with valid response times. The highest priority calls were responded to within 5.58 minutes. The average response time for all calls was 17 minutes.

Regulatory Setting

Local laws, regulations, and policies pertain to law enforcement services in the Planning Area. The regulatory framework for public services is discussed in further detail in the TBR (**Appendix 4.0**). The following summarizes key regulations used to reduce the potential environmental impacts of implementing the General Plan update.

Local

Palm Desert Municipal Code: The City’s Municipal Code includes regulations and standards related to development and operations. Title 2, Administration and Personnel, contains bylaws and administration procedures for City advisory committees (including Emergency Preparedness) and commissions (including Planning Commission and Public Safety Commission). Title 15, Building and Construction, establishes building and construction standards to protect the public health, safety, and welfare through fire prevention, abatement of dangerous buildings, seismic strengthening, and enforcement of mechanical, plumbing, and electrical codes. Title 9, Public Peace, Morals and Welfare, identifies expectations for public conduct in the Planning Area, enforced by the Police Department.

Impacts and Mitigation Measures

Analysis Approach

Evaluation of potential law enforcement impacts was based on information supplied by the Palm Desert Police Department. The impact analysis focuses on whether those impacts would have a significant effect on the physical environment.

Draft General Plan Update Policies and Implementation Actions

The following General Plan update policies and implementation actions address law enforcement services:

Policies

Public Utilities & Services Element

- **Policy 7.1: Quality of service.** Provide courteous, responsive, and efficient police and fire services.
- **Policy 7.2: Review of new development.** Work with the Riverside County Sheriff’s Department and the Riverside County Fire Department to review and modify development proposals to incorporate defensible space, Crime Prevention Through Environmental Design (CPTED), and other public safety design concepts into new development.
- **Policy 7.3: Serving new growth.** Expand police and fire service coverage in conjunction with new growth to ensure quality of service does not diminish.
- **Policy 7.7: Emergency preparedness.** Work with Riverside County Fire Department, the Riverside County Sheriff’s Department and the Palm Desert Police Department, along with residents to ensure that sufficient emergency plans and resources are established and known by all stakeholders.
- **Policy 7.9: Police services.** Work with all available resources to ensure continued excellent and cost effective police services in Palm Desert.

Implementation Actions

- **Action 2.17.** Regularly review and, as needed, update the impact fees to keep pace with changing economic conditions and community needs. Adopt and update the City’s authority for collection of development fees within the full extent allowed under state law.
- **Action 2.35.** Facilitate community policing and neighborhood watch organizations aimed at increasing awareness and decreasing opportunities for crime activity.
- **Action 3.18.** Continue to fund School Resources Officer (SRO) positions for the Palm Desert public schools by coordinating with school officials, and the DSUSD to provide a safe learning environment for Palm Desert students.
- **Action 3.19.** Consult with the RCFD Office of Emergency Services, the CVWD, Southern California Edison, the Southern California Gas Company, the Imperial Irrigation District, and other utilities and agencies, as appropriate, to develop and disseminate public education materials advising visitors, residents, and local businesses of appropriate responses in preparation for and during an emergency.

Thresholds of Significance

The impact analysis below is based on the following State CEQA Guidelines Appendix G standard of significance. A law enforcement services impact is considered significant if adoption and implementation of the General Plan update would:

Threshold	Determination
1. Result in substantial adverse physical impacts associated with the provision of or 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 law enforcement services	Less Than Significant
2. Cumulative demand for law enforcement services	Less Than Cumulatively Considerable

Impacts and Mitigation Measures

IMPACT 4.14.2-1 **Increased Demand for Law Enforcement Services.** *Implementation of the General Plan update would result in an increase in population in the Planning Area, which would increase demand for police protection services, resulting in the need for additional and/or expanded police protection facilities. However, General Plan update policies and implementation actions would require the City to continue to provide funding and adequate staffing, facilities, equipment, and technology to meet existing and projected service demands and response times. Therefore, this impact would be **less than cumulatively considerable**.*

An increase in population resulting from implementation of the General Plan update may place higher demands on police facilities to maintain acceptable response times and service ratios. The PDPD currently operates with 81 staff members. As shown in Chapter 3, Project Description, the city is anticipated to experience population growth,

with the potential to increase the current population to 61,691 by the year 2040 (from 49,335 in 2016).

As such, law enforcement service needs under the incremental population increase would be met by the City and the PDPD if additional patrol hours are deemed necessary. In addition, the incremental increase in the city’s population and in the number of residential units in Palm Desert would be triggered by development that would be subject to subsequent project-level environmental review. As part of subsequent environmental review, future development would be required to comply with General Plan Safety Element Policy 7.2 and Policy 7.8, which direct the City to work with the Riverside County Sheriff’s Department [contracted to the City via the PDPD] through the review of proposed development projects to ensure that police service–related issues are considered. These provisions will allow adequate levels of personnel and equipment to respond to routine incidents and to larger events. If additional or expanded facilities are required to support future development, the environmental impacts associated with expanded law enforcement facilities would be analyzed during subsequent environmental review. Typical environmental effects from the construction and operation of law enforcement facilities can include issues with noise (sirens), air quality (during the construction of the facility), biological resources (depending on location), cultural resources (depending on location), and public utilities (demand for electric, water, and wastewater service).

Additionally, all future residential and nonresidential development projects in Palm Desert are subject to development impact fees to mitigate the impacts of new development. Development impact fees finance public facilities and service improvements, including police services capital and facilities needs. The fees are necessary in order to finance capital and infrastructure improvements and to provide new development’s fair share of the construction and/or acquisition costs of these improvements. Imposition of development impact fees to finance public facilities and service improvements, including police capital facilities needs, is necessary in order to offset any potential increase in population, thereby protecting public safety and welfare. Action 2.17 requires the City to regularly review and, as needed, update the impact fees to keep pace with changing economic conditions and community needs.

Subsequent environmental review, compliance with General Plan update policies, and compliance with the City’s Municipal Code would ensure that environmental impacts associated with the continued provision of police services would be **less than significant**.

Mitigation Measures

None required.

Cumulative Impacts and Mitigation Measures

The cumulative context for law enforcement services is generally specific to the Planning Area rather than regional. The cumulative context for impacts discussed below includes projected regional growth in surrounding cities and in Riverside County, as law enforcement may travel beyond the Planning Area.

IMPACT **Cumulative Demand for Law Enforcement Services.** *Implementation of the General Plan update, in combination with other existing, planned, proposed, approved, and reasonably foreseeable development in the PDPD service area, would increase the demand for*

*law enforcement services and thus require additional staffing, equipment, and facilities, the construction of which could cause significant environmental impacts. However, the General Plan update's contribution to the need for expanded law enforcement services is considered **less than cumulatively considerable** given requirements for project-level CEQA review.*

As discussed in Impact 4.14.2-1 above, the General Plan update could result in the need for additional law enforcement staffing, equipment, and facilities. Growth anticipated in association with the updated General Plan would occur in the Planning Area, which is already being served by the PDPD under contract from the Riverside County Sheriff's Department. Therefore, the General Plan update would not contribute to a cumulative demand for law enforcement services outside of the Planning Area, and the PDPD would not be required to expand its service area to accommodate growth projected or allowed under the updated General Plan.

Future law enforcement facilities projects would be subject to project-level CEQA review at such time as an application for a project is submitted to the appropriate agency. Project-specific environmental review would identify and mitigate cumulative environmental impacts. Therefore, the updated General Plan's contribution to the continued provision of law enforcement services in the cumulative setting would be considered **less than cumulatively considerable**.

Mitigation Measures

None required.

Public Schools

Environmental Setting

Public education services and facilities are provided in Palm Desert by the Desert Sands Unified School District (DSUSD) and the Palm Springs Unified School District (PSUSD). The DSUSD operates four elementary schools, one middle school, and one high school in the city. The PSUSD covers the areas in the far north and south of the city and Sphere of Influence (SOI). Areas of the city north of Frank Sinatra Drive are located within the PSUSD territory. In addition, the PSUSD owns property south and east of Dick Kelly Drive and Gateway Drive, and it plans to construct an elementary or K–8 school on the property. **Table 4.14.3-1** shows grade and enrollment information for each school. It should be noted that the public schools currently serving the Planning Area (**Table 4.14.3-1**) are all in the Desert Sands Unified School District. Public schools are supplemented by numerous private schools that provide early education to children of residents. In addition, Palm Desert is home to four colleges and universities that offer a variety of vocational and advanced education opportunities.

Table 4.14.3-1 DSUSD Public Schools – Palm Desert School Enrollment (2012–2013)

Palm Desert Public Schools (Early Education)	Grades	Total Enrollment
Abraham Lincoln Elementary	K–5	737
George Washington Charter Elementary	K–5	835
Ronald Reagan Elementary	K–5	877
Gerald Ford Elementary	K–5	776
James Earl Carter Elementary	K–5	668
Palm Desert Middle School	6–8	1,339
Palm Desert High School	9–12	1,979

Source: DSUSD 2014

Regulatory Setting

The following state and local plans, policies, regulations, and laws pertain to public schools in the Planning Area.

State

California Education Code: The California Education Code contains various provisions governing the siting, design, and construction of new public schools (e.g., Education Code Sections 17211, 17212, and 17212.5). In addition, to help focus and manage the site selection process, the California Department of Education School Facilities and Planning Division has developed screening and ranking procedures based on criteria commonly affecting school selection (Education Code Section 17251[b], Title 5 of the California Code of Regulations, Section 14001[c]). The foremost consideration in the selection of school sites is safety. Certain health and safety requirements are governed by state statute and Education Code regulations. In selecting a school site, a school district should consider factors such as proximity to airports and railroads, proximity to high-voltage power transmission lines, presence of toxic and hazardous substances, and hazardous air emissions within one-quarter mile.

School Facility Fees: Education Code Section 17620 authorizes school districts to levy a fee, charge, dedication, or other requirement against any development project for the construction or reconstruction of school facilities, provided that the district can show justification for levying of fees. Government Code 65995 limits the fee to be collected to the statutory fee (Level I) unless a school district conducts a Facility Needs Assessment (Government Code Section 65995.6) and meets certain conditions. These fees are adjusted every two years in accordance with the statewide cost index for Class B construction, as determined by the State Allocation Board.

Senate Bill (SB) 50 (1998) instituted a new school facility program by which school districts can apply for state construction and modernization funds. This legislation imposed limitations on the power of cities and counties to require mitigation for school facility impacts as a condition of approving new development. Proposition 1A/SB 50 prohibits local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any “legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property...” (Government Code Section 65996[b]). Additionally, a local agency cannot require participation in a Mello-Roos district for school facilities; however, the statutory fee is reduced by the amount of any voluntary participation in a Mello-Roos

district. Satisfaction of the Proposition 1A/SB 50 statutory requirements by a developer is deemed to be “full and complete mitigation.”

State Service Standards Affecting All Districts: The California Education Code Section 41402 states that unified school districts are required to have 8 administrative employees per 100 teachers. State standards for the number of students per classroom pursuant to Chapter 407, Statutes of 1998 (loading standards), require a maximum of 25 students per classroom in elementary schools and 27 students per classroom in middle and high schools.

Impacts and Mitigation Measures

Analysis Approach

To determine the level of impact the General Plan update will have on the local public school system, student generation rates from the DSUSD Fee Justification Study were used to calculate future student populations in the Planning Area.

Draft General Plan Update Policies and Implementation Actions

The following proposed General Plan update policies address public schools:

Policies

Public Services & Utilities Element

- **Policy 6.1: Future demand.** Cooperate and coordinate with the Desert Sands and Palm Springs Unified School Districts and state agencies in identifying potential school sites needed to meet future demand, as well as the planning, site acquisition and development of educational facilities in the city.
- **Policy 6.2: Higher education.** Support and encourage well planned, higher educational facilities in Palm Desert including satellite university campuses and vocational training schools in medical research and technology, particularly in the Cook Street “education corridor”.
- **Policy 6.3: Library space.** Ensure adequate library space, services, books and other resources are available to residents and students.
- **Policy 6.4: Health services.** Plan and encourage health care facilities and clinics located in close proximity to schools and public facilities.
- **Policy 6.5: Quality early education.** Collaborate with the Desert Sands and Palm Springs Unified School Districts and local private schools to maximize educational quality.
- **Policy 6.6: Prioritize higher education.** Support new University endeavors within Palm Desert including University of California Riverside and San Bernardino, College of the Desert, and Brandman University.

Thresholds of Significance

The impact analysis provided below is based on the following State CEQA Guidelines Appendix G standard of significance. A public schools impact is considered significant if adoption and implementation of the General Plan update would:

	Threshold	Determination
1.	Result in substantial adverse physical impacts associated with the provision of or need for new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, or other performance objectives related to schools	Less Than Significant
2.	Cumulative schools impacts	Less Than Significant

Impacts and Mitigation Measures

IMPACT 4.14.3-1 **Demand for Additional School Facilities.** *Implementation of the General Plan update would result in an increase in population in the Planning Area, resulting in the need for additional and/or expanded school facilities. However, existing laws and regulations would require funding for the provision or expansion of new school facilities to offset impacts from new residential or commercial/industrial development. Therefore, this impact would be **less than significant**.*

An increase in population resulting from implementation of the General Plan update may place greater demands on education facilities due to the projected increase of approximately 8,049 new households from 2015 to 2040. According to the DSUSD, as illustrated in **Table 4.14.3-2**, the General Plan update is anticipated to generate 1,372 elementary, 732 middle school, and 1,015 high school students, for a total of 3,119 students.

Table 4.14.3-2 School Enrollment Generation Factors and Student Generation of Proposed Project

School	Generation Factor	Student Generation
Elementary	.1704	1,372
Middle	.0909	732
High	.1261	1,015
Total Student Generation		3,119

Source: DSUSD 2016

Because new residential and commercial/industrial uses are anticipated with implementation of the General Plan update, each development project will be required to pay developer impact fees in the amount required at the time of building permit issuance. The DSUSD has established school impact mitigation fees to address the facility impacts created by new residential and commercial/industrial development (DSUSD 2016). The district uses these fees to pay for facility expansion and upgrades needed to serve new students. Currently (school year 2015/2016), the DSUSD is under capacity for elementary schools (grades K–5) by 459 students, for middle schools (grades 6–8) by 166 students, and for high schools (grades 9–12) by 288 students (DSUSD 2016). However, it appears as though the number of students generated as the result of the General Plan update would exceed existing capacities. However, the total number of students anticipated to be generated by the implementation of the updated General Plan would not occur until 2040. The fees collected from developers will go toward financing construction and/or acquisition of new public school facilities necessary to serve students expected to be generated from new residential and commercial/industrial development (DSUSD 2016).

In addition, Public Utilities & Services Element Policy 6.1, requires cooperation and coordination with the Desert Sands and Palm Springs Unified Schools districts in identifying future demand, site acquisition, and plans for facility needs. As such, if project-level significant impacts are identified, applicable mitigation measures will be placed on a project as conditions of approval. Therefore, existing laws and regulations would require funding for the provision or expansion of new school facilities to offset impacts from new residential or commercial/industrial development. This impact would be **less than significant**.

Mitigation Measures

None required.

Cumulative Impacts and Mitigation Measures

The cumulative context for public schools impacts is generally specific to the Planning Area rather than regional. The cumulative context for impacts discussed below includes projected regional growth in surrounding cities and in Riverside County.

IMPACT 4.14.3-2 **Cumulative Schools Impacts.** *Population growth associated with implementation of the General Plan update, in combination with other existing, planned, proposed, approved, and reasonably foreseeable development in the region, would result in a cumulative increase in student enrollment. This is a **less than cumulatively considerable** impact.*

As discussed under Impact 4.14.3-1, implementation of the General Plan update is expected to result in population growth that would increase student enrollment in the Desert Sands Unified School District. Current state law indicates that the environmental impact of new development on grade school facilities is considered fully mitigated through the payment of required development impact fees. All new development proposed and approved, including any future development allowed by the General Plan update, would be required to pay applicable development impact fees. Furthermore, any significant expansion of school facilities or development of new school facilities would be subject to the appropriate CEQA environmental review, which would identify any site-specific impacts and include mitigation to reduce those impacts. Therefore, cumulative impacts on school facilities are considered **less than cumulatively considerable**.

Mitigation Measures

None required.

Parks and Recreation

Environmental Setting

The Technical Background Report (**Appendix 4.0**) describes the regional and local conditions related to parks and recreation in Palm Desert in further detail. Key findings are presented below.

Park Facilities

The City owns, operates, and maintains several developed park and recreation facilities—green space, playgrounds, trails, picnic facilities, community gardens, dog parks, and space for sporting events. The City partners with the Desert Recreation

District to offer recreational programs and activities year-round, and rents City park facilities for private events. In addition to City parks, other recreational facilities in Palm Desert include three municipally owned golf courses and the Family YMCA located in Civic Center Park. In addition to these publicly owned facilities, numerous privately owned golf courses throughout the Planning Area are open to the public.

The city and SOI include approximately 163 acres of parkland, 23,060 acres of open space, and 6,834 acres of golf courses (see **Table 4.14.4-1**). The City of Palm Desert’s established goals and standards for parkland identified in the 2004 General Plan are 0.25 acres per 1,000 residents for mini parks, 1 acre per 1,000 residents for neighborhood parks, and 5 acres per 1,000 residents for community parks. Although the City has not reached these standards for each park type, with 50,417 residents in 2014 and 163 acres of accessible parkland in Palm Desert, the city has an average of 3.23 acres of parkland per 1,000 residents.

Table 4.14.4-1 Parks, Recreation, and Open Space in Palm Desert – Total Acreage

Type	Total Acreage
Existing parks	163
Future parks	56
Open space	23,060
Private golf courses	6,287
Public golf courses	547

Source: City of Palm Desert GIS data, 2014; includes residential properties in country club

Open Space

Several large open space preserves surround Palm Desert to the north, south and southwest. These include the Living Desert, Coachella Valley Preserve, Fox Canyon, and the Santa Rosa and San Jacinto Mountains National Park. In addition, the City owns an extensive amount of land along the hillsides, some of which have conservation easements.

The Living Desert, a wildlife and botanical park located east of Portola Avenue and south of Highway 111, was established as a wilderness preserve around 1970. The Living Desert covers about 1,200 acres and includes a zoo, wildlife exhibits, and a botanical garden.

The Coachella Valley Preserve abuts the northern boundary of the city and SOI. This 20,114-acre preserve was established in 1985 to protect critical habitat for the survival of the federally threatened Coachella Valley fringe-toed lizard. The preserve features a visitor center, picnic areas, and hiking trails open to the public.

The City of Palm Desert, the Friends of the Desert Mountains Conservancy, and the Bureau of Land Management purchased 98 acres of mostly mountainous land as an open preserve known as Fox Canyon in 2005. Fox Canyon is located north of the Cahuilla Hills Park tennis courts, forming the city boundary on the west. The recently dedicated Herb Jeffries Trail runs on a ridge through the middle of the canyon.

The Santa Rosa and San Jacinto Mountains National Monument, established by Congress in October 2000, encompasses 440 square miles from the San Geronio Pass southeast into the Imperial Valley. This designation recognizes the land as a nationally important scenic and resource area for its biological, cultural, and geological diversity. The visitors center is located on Highway 74 just south of Palm Desert and provides information, exhibits, and gardens. The monument features hiking and equestrian trails, numerous palm oases, waterfalls, and an aerial tramway.

Conservation easements in the city include 9 acres located within the Bighorn development and 57.2 acres in the Stone Eagle development. These mountainside preserved areas contain hiking trails for recreation.

Trails

Palm Desert offers a variety of multipurpose trails, most of which are part of the open space preserves described above. Trails on the urban edge are often used by city dwellers for daily workouts and other exercise. Trails farther away are used for more traditional hiking and by outdoor enthusiasts. Other uses include mountain biking and equestrian recreation. Mountain biking has a strong presence in Palm Desert in comparison to equestrian uses.

The four main hiking trails located within (or partially within) the city boundaries include the Art Smith Trail, the Hopalong Cassidy Trail, the Randall Henderson Trail, and the Herb Jeffries Trail. These four trails are all located in the Santa Rosa Mountains.

The 8.4-mile Art Smith Trail is one of the signature trails in the Santa Rosa and San Jacinto Mountains National Monument, offering scenic views across the Coachella Valley to the Little San Bernardino Mountains and Joshua Tree National Park, and over the cities of Palm Desert and Rancho Mirage.

The Hopalong Cassidy Trail can be accessed from several of Palm Desert's parks, including Homme-Adams Park and Cahuilla Hills Park. This 8.3-mile hiking trail runs north-south through the mountains, parallel to Highway 74. An easier trail, the Randall Henderson Trail, is good for the novice hiker. Starting at the National Monument Visitor Center on Highway 74, this loop trail rises about 400 feet over its 2.4-mile route. Lastly, the Herb Jeffries Trail is a steep and challenging hiking path through Fox Canyon and is accessible from Cahuilla Hills Park.

Additional hiking trails exist north of the city in the Coachella Valley Preserve and Joshua Tree National Park, and just east of Portola Avenue in the Living Desert preserve.

Regulatory Setting

The following state law pertains to public services and recreation in the Planning Area.

State

Quimby Act: As part of approval of a final tract or parcel map, the Quimby Act allows a city to require dedication of land, the payment of in-lieu fees, or a combination of both to be used for the provision of parks and recreational services. Cities can require land or in-lieu fees for a minimum of 3 acres per 1,000 residents, with the possibility of increasing the requirement to a maximum of 5 acres per 1,000 residents if the city already provides more than 3 acres per 1,000 residents.

Impacts and Mitigation Measures

Analysis Approach

Evaluation of the General Plan update was based on review of the current facilities, the City’s Municipal Code, and other relevant literature. This material was compared to the General Plan’s specific parks and recreation service–related impacts. The impact analysis below focuses on whether those impacts would have a significant effect on the physical environment.

Draft General Plan Update Policies and Implementation Actions

The following General Plan update policies and implementation actions address parks and recreation facilities and services:

Policies

Environmental Resources Element

- **Policy 3.1: Open space network.** Require new development to contribute land and/or funding to expand the community’s open space network, in support of the CVMSHCP.
- **Policy 3.3: Preservation of natural land features.** Preserve significant natural features and incorporate into all developments. Such features may include ridges, rock outcroppings, natural drainage courses, wetland and riparian areas, steep topography, important or landmark trees and views.
- **Policy 4.1: Buffers from new development.** Require new developments adjacent to identified plant and wildlife habitat areas to maintain a protective buffer.
- **Policy 4.2: Wildlife corridors.** Support the creation of local and regional conservation and preservation easements that protect habitat areas, serve as wildlife corridors and help protect sensitive biological resources.

Land Use & Community Character Element

- **Policy 1.2: Open space preservation.** Balance the development of the city with the provision of open space so as to create both high quality urban areas and high quality open space.
- **Policy 3.15: Access to parks and open spaces.** Require the design of new neighborhoods and, where feasible, retrofit existing neighborhoods, so that 60 percent of dwelling units are within a ¼ mile walking distance of a usable open space such as a tot-lot, neighborhood park, community park or plaza/green.
- **Policy 8.7: Natural environment.** Maintain and enhance the natural environment as critical to the attraction of tourists and ensure that new development does not adversely affect the natural environment as a tourist draw.
- **Policy 8.8: Recreational amenities.** Strategically utilize City recreational investments to create and enhance development opportunities.

Implementation Actions

- **Action 3.4.** Create incentives to convert vacant lots into small parks or open spaces throughout the City.

- **Action 3.5.** Create incentives for new development to include small parks, tot lots, passive gardens, outdoor eating areas, plazas, paseos and other outdoor open spaces.
- **Action 3.8.** Develop a comprehensive community agriculture program that includes schools and parks.
- **Action 4.15.** Update the City’s landscape ordinance to require new public facilities or park improvements to be designed using drought-tolerant tree plantings, landscaping, fences, berms, or other methods to serve as windbreaks.

Thresholds of Significance

The impact analysis provided below is based on the following State CEQA Guidelines Appendix G standards of significance. A park and recreation impact is significant if implementation of the General Plan update would:

Threshold	Determination
1. Result in the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated	Less Than Significant
2. Result in the inclusion of recreational facilities or require construction or expansion of recreational facilities which might have an adverse physical effect on the environment	Less Than Significant
3. Cumulative parks and recreation demands	Less Than Significant

Impacts and Mitigation Measures

IMPACT Demand for Additional Parks or Recreational Facilities.

4.14.4-1 *Implementation of the General Plan update would result in an increase in population in the Planning Area, which would increase demand for parks and recreation services, resulting in the need for additional and/or expanded parks and recreation facilities. However, General Plan update policies and implementation actions would require the provision of new parks and recreation facilities and ongoing parkland maintenance to prevent deterioration. Therefore, this impact would be **less than significant**.*

An increase in population resulting from implementation of the General Plan update may place greater demands on parks or recreational facilities in the Planning Area such that deterioration of these facilities could occur or be accelerated. Development associated with future land uses consistent with the updated General Plan would result in new residents in the Planning Area. The city and SOI include approximately 163 acres of parkland, 23,060 acres of open space, and 6,834 acres of golf courses. The City of Palm Desert’s established goals and standards for parkland identified in the 2004 General Plan are 0.25 acres per 1,000 residents for mini parks, 1 acre per 1,000 residents for neighborhood parks, and 5 acres per 1,000 residents for community parks. Although the City has not reached these standards for each park type, the City provides an average of 3.23 acres of parkland per 1,000 residents. The existing amount

of parkland in the city is adequate, as it currently exceeds the amount of parkland required by the Quimby Act. Therefore, the additional new residents would not significantly impact park facilities.

The General Plan update policies and implementation actions in the Environmental Resources Element and the Land Use & Community Character Element would ensure that adequate parks and recreational facilities are available to accommodate the anticipated increase in new residents. Environmental Resources Element Policy 3.1 would require new development to contribute land and/or funding to expand the community's open space network, in support of the CVMSHCP. Policy 3.3 would preserve significant natural features and incorporate them into all developments. Such features may include ridges, rock outcroppings, natural drainage courses, wetland and riparian areas, steep topography, important or landmark trees, and views. Policy 4.1 would require new developments adjacent to identified plant and wildlife habitat areas to maintain a protective buffer. Policy 4.2 would support the creation of local and regional conservation and preservation easements that protect habitat areas, serve as wildlife corridors, and help protect sensitive biological resources. Land Use & Community Character Element Policy 1.2 would balance the city's development with the provision of open space so as to create both high quality urban areas and high quality open space. Policy 3.15 would require the design of new neighborhoods and, where feasible, retrofit existing neighborhoods, so that 60 percent of dwelling units are within a quarter-mile walking distance of a usable open space such as a tot-lot, neighborhood park, community park, or plaza/green. Policy 8.7 would maintain and enhance the natural environment as critical to the attraction of tourists and ensure that new development does not adversely affect the natural environment as a tourist draw. Policy 8.8 would strategically utilize City recreational investments to create and enhance development opportunities.

Action 3.4 would create incentives to convert vacant lots into small parks or open spaces throughout the city. Action 3.5 would create incentives for new development to include small parks, tot lots, passive gardens, outdoor eating areas, plazas, paseos and other outdoor open spaces. Action 3.8 would develop a comprehensive community agriculture program that includes schools and parks. Action 4.15 would update the City's landscape ordinance to require new public facilities or park improvements to be designed using drought-tolerant tree plantings, landscaping, fences, berms, or other methods to serve as windbreaks.

The General Plan update policies and implementation actions would maintain existing levels of service for parks and recreation facilities for both current and new residents, including maintenance to prevent deterioration of existing parks. Therefore, impacts to parks and recreation facilities and services would be **less than significant**.

Mitigation Measures

None required.

IMPACT 4.14.4-1a ***Demand for Expansion Causing an Adverse Physical Effect on the Environment.** Implementation of the General Plan update would result in an increase in population in the Planning Area, which would increase demand for parks and recreation services, resulting in the need for additional and/or expanded parks and recreation facilities. However, General Plan update policies and implementation actions would require the provision of new parks and recreation facilities and ongoing parkland maintenance to prevent an adverse physical effect on the environment. Therefore, this impact would be **less than significant**.*

See Impact 4.14.4-1.

Mitigation Measures

None required.

Cumulative Impacts and Mitigation Measures

Although there is no defined boundary for cumulative impacts to parkland and recreational facilities, residents of a city lacking in parkland or recreation facilities may travel to an adjacent city to use such facilities, thereby increasing the use and furthering deterioration of those facilities. The Palm Desert General Plan update and other general plan updates for nearby cities in Riverside County would increase the population of the area, thereby increasing the need for additional or expanded parkland and recreational facilities.

IMPACT 4.14.4-2 ***Cumulative Parks and Recreation Demands.** Implementation of the General Plan update, along with other existing, planned, proposed, approved, and reasonably foreseeable development, would increase the use of existing parks and would require additional park and recreation facilities in the cumulative setting, the provision of which could have an adverse physical effect on the environment. This would be a **less than cumulatively considerable** impact.*

The city and SOI include approximately 163 acres of parkland, 23,060 acres of open space, and 6,834 acres of golf courses. The City of Palm Desert's established goals and standards for parkland identified in the 2004 General Plan are 0.25 acres per 1,000 residents for mini parks, 1 acre per 1,000 residents for neighborhood parks, and 5 acres per 1,000 residents for community parks. Although the City has not reached these standards for each park type, the City provides an average of 3.23 acres of parkland per 1,000 residents. The existing amount of parkland in the city is adequate, as it currently exceeds the amount of parkland required by the Quimby Act. Therefore, the additional new residents would not significantly impact park facilities. The General Plan update contains several policies that stimulate the development of new parks and recreational facilities. Therefore, the General Plan update would have a **less than cumulatively considerable** impact on parks and recreation facilities and services.

Mitigation Measures

None required.

Library Facilities

Environmental Setting

Many other services are needed and used by Palm Desert residents, but not all are within the City’s jurisdiction. Examples of non-City services with increased demands as a result of increased population include medical services, such as hospitals and emergency care centers, child-care services, library services, and senior services.

Regulatory Setting

No federal, state, or local plans, policies, regulations, and laws pertain to library services in the Planning Area.

Impacts and Mitigation Measures

Analysis Approach

To determine the General Plan update’s level of impact on the local public library system, the projected population growth from the General Plan update was analyzed.

General Plan Update Policies and Implementation Actions

The following proposed General Plan update policy address libraries:

Policy

Public Utilities & Services Element

- **Policy 6.3: Library space.** Ensure adequate library space, services, books and other resources are available to residents and students.

Thresholds of Significance

The impact analysis provided below is based on the following State CEQA Guidelines Appendix G standard of significance. A library impact is considered significant if adoption and implementation of the updated General Plan would:

	Threshold	Determination
1.	Result in substantial adverse physical impacts associated with the provision of or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, or other performance objectives relating to libraries	Less Than Significant
2.	Cumulative library impacts	Less Than Significant

Impacts and Mitigation Measures

IMPACT 4.14.5-1 Demand for Additional Library Facilities. *Implementation of the General Plan update would result in an increase in population in the Planning Area, which would increase the demand for library services. However, the City would not need to expand or construct library facilities to meet recommended standards. Therefore, this impact would be less than significant.*

With the slight increase in population and new development anticipated with implementation of the General Plan update, minimal additional demands would be

placed on library services. Development pursuant to the General Plan update would likely not require the provision of additional library space.

However, if a new library should be constructed, typical environmental effects regarding the construction and operation of a library facility may involve issues with air quality (during the construction of the facility), biological resources (depending on location), cultural resources (depending on location), and public utilities (demand for electric, water, and wastewater service). The provision of additional facilities in the future would be required to undergo project-specific environmental review at such time as an application for a project is submitted.

Implementation of General Plan update policies would direct the provision of adequate facilities, staffing, equipment, technology, and funding to meet existing and projected library service needs as demands grow with the increase in population. Therefore, with implementation of the General Plan update policies, this impact would be **less than significant**.

Mitigation Measures

None required.

Cumulative Impacts and Mitigation Measures

Although there is no defined boundary for cumulative impacts to library facilities, residents of a city lacking in library facilities may travel to an adjacent city to use such facilities, thereby increasing the use and furthering deterioration of those facilities. The General Plan update and other general plan updates for nearby cities in Riverside County would increase the population of the area, thereby increasing the need for additional or expanded library facilities.

IMPACT 4.14.5-2 **Cumulative Library Impacts.** *Population growth associated with implementation of the General Plan update, in combination with other existing, planned, proposed, approved, and reasonably foreseeable development in the region, would not result in a cumulative increase in demand for library services. This is a **less than cumulatively considerable** impact.*

With the slight increase in population and new development and redevelopment anticipated with implementation of the General Plan update, minimal additional demands would be placed on library services. The implementation of the General Plan update would facilitate future development associated with its implementation. However, each individual project is required project-level CEQA analysis. Any potential impacts associated with each individual project would require the implementation of appropriate mitigation measures and/or the payment of appropriate fees to reduce impacts to less than significant levels. Therefore, cumulative impacts on library facilities are considered **less than cumulatively considerable**.

Mitigation Measures

None required.

Water Supply and Service; Wastewater Service

Environmental Setting

The Technical Background Report (**Appendix 4.0**) describes the regional and local conditions related to water supply and service in Palm Desert in further detail. Key findings of the environmental setting are presented below.

Water Supply and Use

Potable and non-potable water is provided to the city by the Coachella Valley Water District (CVWD). Water demand in Palm Desert and the surrounding communities is supplied by several sources: groundwater, surface water from local streams, imported water either from the State Water Project (SWP) or from the Colorado River via the Coachella Canal, and recycled water. All drinking, or domestic water, comes from groundwater, while water for irrigation comes primarily from recycled wastewater and the Colorado River.

In 1964, it was estimated that the five subbasins that make up the Coachella Valley Groundwater Basin contained a total of approximately 39.2 million acre-feet of water in the first 1,000 feet below the ground surface; much of this water originated as runoff from the adjacent mountains. Of this amount, approximately 28.8 million acre-feet of water was stored in the Whitewater River subbasin. The Whitewater River subbasin, which encompasses approximately 400 square miles and underlies much of the Coachella Valley, serves as the groundwater repository for the Palm Desert area. The city is located within the boundaries of the upper Thermal subarea. The entire Thermal subarea (including the upper and lower Thermal subareas) contains an estimated 19.4 million acre-feet of groundwater in storage in the first 1,000 feet below the surface.

The amount of water in the Whitewater River subbasin has decreased over the years due to pumping to serve urban, rural, and agricultural development in the Coachella Valley. Overdraft is a condition in which water is withdrawn at a faster rate than its rate of recharge. Total groundwater production in 2011 for the upper Whitewater River subbasin totaled 182,823 acre-feet. In 2011, the annual water balance (total inflow minus total outflow) for the upper Whitewater River subbasin was a gain of 142,379 acre-feet of water, due to replenishment of the groundwater from imported water sources. While inflow was greater than outflow for 2011, the cumulative overdraft for the Whitewater River subbasin through 2011 was 735,974 acre-feet (overdraft conditions have increased since 1936).

Since 1949, the Coachella Canal (a branch of the All-American Canal) has been providing water for irrigation use by farms and golf courses. In addition, CVWD and the Desert Water Agency (DWA) have an agreement with the Metropolitan Water District of Southern California (MWD) to obtain water from the MWD Colorado River Aqueduct, which crosses the upper portion of the valley near Whitewater, in exchange for CVWD and DWA State Water Project water. Since 1973, CVWD and DWA have been releasing Colorado River water near Whitewater to replenish groundwater in the upper portion of the Whitewater River subbasin of the valley.

CVWD's domestic water system, which serves the city, includes a total of 102 wells with an average depth of 1,000 to 1,300 feet. In Palm Desert, CVWD maintains 32 active domestic wells, 13 domestic water reservoirs, and 19 domestic water booster

stations. From June 2013 to May 2014, Palm Desert customers used 28,899 acre-feet of water, with a daily average consumption of 25.8 million gallons per day (mgd).

The Myoma Dunes Mutual Water Company provides domestic water service to the Bermuda Dunes community, except for development along Washington Street, which is served by CVWD. Its five active wells, drilled to depths of 750 to 800 feet, can produce 1,700 to 3,200 gallons of potable water per minute. Three of the production wells discharge water directly into the water distribution system, which conveys water through distribution water mains ranging in size from 4 to 12 inches in diameter. The two other wells deliver water directly into a water reservoir near the intersection of 41st Avenue and Hermitage Drive. The reservoir has a capacity of one million gallons. Myoma Dunes operates a sixth well, which is used solely by Bermuda Dunes Airport and is not connected to the water delivery system.

Future Water Demand

Factoring potential variations in future land use and growth forecasts into demand projections for the Coachella Valley, CVWD (2011) estimates that total water demand in 2045 could range from 793,600 acre-feet per year (AFY) to 971,500 AFY with a mid-range planning value of 885,400 AFY. It is projected that Palm Desert will have a population of 78,787 in 2045. Using the city's current annual water demand of 0.57 acre-feet per person (current annual demand divided by current population), this would result in a total demand of approximately 44,908 AFY for Palm Desert in 2045.

Wastewater and Sewers

CVWD also provides wastewater and sewage collection and treatment services in the city and SOI. The only outlets for groundwater in the Coachella Valley are through subsurface outflow under the Salton Sea or through collection in drains and transport to the Salton Sea via the Coachella Valley Storm Channel. There are five stormwater channels in the city: Whitewater River Stormwater Channel, and its tributaries, Dead Indian Creek, the Deep Canyon Channel, the Palm Valley System, and the East Magnesia Channel.

Wastewater is conveyed through sewer trunk lines generally ranging in size from 4 to 24 inches, relying primarily on gravity flow. CVWD maintains five sewer lift stations within the city boundaries. Effluent from the city is conveyed to CVWD's Cook Street treatment plant (WRP 10), which treats an average of 10 mgd and had a capacity of 18 mgd in 2014. Effluent from Bermuda Dunes, Del Webb's Sun City, and other development north of Miles Avenue is conveyed to the treatment plant located at Madison Street and Avenue 38 (WRP 7). This plant treats approximately 2.5 mgd of wastewater and has a capacity of 5 mgd.

Wastewater Reclamation

CVWD, recognizing the need for other sources of water to reduce demand on groundwater, entered the water reclamation field in 1967 and currently operates six water reclamation plants (WRPs) in the valley. Recycled water from two of these facilities (WRP 9 and WRP 10) has been used for golf course and greenbelt irrigation in the Palm Desert area for many years, thereby reducing demand on the groundwater basin. A third facility (WRP 7), located north of Indio, began providing recycled water for golf course and greenbelt irrigation in 1997.

Wastewater is typically treated to secondary levels and reintroduced into the groundwater table through percolation ponds, with passage through sands and soils providing a final stage of filtration. Tertiary treated water undergoes an additional

stage of treatment, making it immediately suitable for irrigation purposes. The Cook Street WRP currently has a tertiary water capacity of 15 mgd. The Cook Street plant generates approximately 8.5 to 9.5 mgd of tertiary treated water during summer months and 5 to 6 mgd during winter months, averaging approximately 7.25 mgd. The water reclamation plant at Madison Street and Avenue 38 has a maximum current capacity of 2.5 mgd.

In the West Coachella Valley, the demand for non-potable water typically exceeds the available recycled water supply, especially in the summer months. Golf courses using recycled water currently must supplement that supply with local groundwater to meet their demands. The Mid-Valley Pipeline (MVP) delivers Colorado River water to the Mid-Valley area for use with CVWD’s recycled water for golf course and open space irrigation, in lieu of pumping groundwater. Construction of the first phase of the MVP from the Coachella Canal in Indio to CVWD’s Water Reclamation Plant 10 (6.6 miles in length) was completed in 2009. At WRP 10, canal water supplements recycled water for delivery to large irrigators. There are eight golf courses and five other users in the West Coachella Valley currently connected to the WRP 10 recycled water system that can receive both recycled water and canal water via the MVP. If these courses meet at least 90 percent of their irrigation needs with non-potable water, 2,700 AFY of additional groundwater pumping will be eliminated. Four golf courses adjacent to the MVP can be connected to the system with minimal construction, thus making them ideal candidates to receive canal water through the MVP. Construction of Phase 1 of the MVP included outlets along the pipeline to serve these courses. However, pipeline connections to deliver canal water from the MVP to each course have yet to be constructed. At least 10 additional golf courses can be connected to the MVP downstream of WRP 10 with relatively simple pipeline connections. When fully implemented, the MVP system will be capable of eliminating about 50,000 AFY of groundwater pumping.

Table 4.14.6-1 Palm Desert Golf Course Irrigation, Water Usage (2013–2014)

Recycled (acre- feet)	Canal (acre- feet)	Non-Potable (recycled + canal)	Non-Potable (recycled + canal)	Ground (acre- feet)	Total (acre- feet)
5,631.019	665.184	6,296.203	6,296.203	2,931.9	9,228.103

Recycled % of Total	Canal % of Total	Non-Potable (recycled + canal) % of Total	Non-Potable (recycled + canal) % of Total	Ground % of Total	Total
61.00%	7.20%	68.20%	68.20%	31.80%	100.00%

Source: Meza 2014

Regulatory Setting

The following federal, state, and local plans, policies, regulations, and laws pertain to water and wastewater services in the Planning Area.

Federal

Clean Water Act and National Pollutant Discharge Elimination System (NPDES):

Authorized by the Clean Water Act in 1972, the NPDES permit program controls water

pollution by regulating point sources that discharge pollutants into waters of the United States. Any industrial, municipal, or other facility which discharges directly to surface waters must obtain permits through the authorized states. In California, the State Water Resources Control Board (SWRCB) serves as the authorized agency to issue NPDES permits.

State

Senate Bill 610: Senate Bill (SB) 610 (Section 21151.9 of the Public Resources Code and Section 10910 et seq. of the Water Code) requires the preparation of water supply assessments (WSA) for large developments (e.g., for projects of 500 or more residential units; 500,000 square feet of retail commercial space; or 250,000 square feet of office commercial space). These assessments, prepared by public water systems responsible for service, address whether adequate existing or projected water supplies are available to serve proposed projects, in addition to urban and agricultural demands and other anticipated development in the service area in which the project is located.

Where a WSA concludes that insufficient supplies are available, the WSA must describe steps that would be required to obtain the necessary supply. The content requirements for the assessment include identification of the existing and future water suppliers and quantification of water demand and supply by source in 5-year increments over a 20-year time frame. This information must be provided for average normal, single dry, and multiple dry years. The absence of an adequate current water supply does not preclude project approval, but does require a lead agency to address a water supply shortfall in its project approval findings.

Urban Water Management Act: The California Urban Water Management Planning Act of 1983 requires that each urban water supplier providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually prepare, update, and adopt its urban water management plan (UWMP) at least once every five years on or before December 31 in years ending in 5 and 0. The plan describes and evaluates sources of water supply, projected water needs, conservation, implementation strategy, and schedule.

Groundwater Management Act: The Groundwater Management Act, Assembly Bill (AB) 3030, signed into law in 1992, provides a systematic procedure for, but does not require, an existing local agency to develop a groundwater management plan. This section of the code provides such an agency with the powers of a water replenishment district to raise revenue to pay for facilities to manage the basin (extraction, recharge, conveyance, and quality). In some basins, groundwater is managed under other statutory or juridical authority (such as adjudicated groundwater basins) and is not subject to the provisions of this act for groundwater management plans.

Water Conservation Act of 2009 (20x2020 Water Conservation Plan): The Water Conservation Act of 2009 (SB X7-7) affects urban water and agricultural water. The 20x2020 Water Conservation Plan sets forth a statewide road map to maximize the state's urban water efficiency and conservation opportunities between 2009 and 2020 and beyond for urban water. It aims to set in motion a range of activities designed to achieve the 20 percent per capita reduction in urban water demand by 2020. These activities include improving an understanding of the variation in water use across California, promoting legislative initiatives that incentivize water agencies to promote water conservation, and creating evaluation and enforcement mechanisms to ensure regional and statewide goals are met. The City is required to establish water

conservation targets for the year 2020. Alternative approaches are also specified in the law (Division 6, Part 2.55 of Water Code Sections 10608–10631.5).

Local

County Water District Act: The California Water District was formed in the Coachella Valley in 1918. Special legislation (Water Code Sections 33100–33106) in 1937 allowed the California Water District to merge with the Coachella Valley Storm Water District, and the successor CVWD assumed the powers and duties of both former districts. A governing board of five members is elected from five general divisions for terms of 4 years each. CVWD boundaries encompass an area of nearly 1,000 square miles in the Coachella Valley. Most of this land is in Riverside County, but CVWD also extends into Imperial and San Diego counties. Communities served include Cathedral City, Indian Wells, La Quinta, Mecca, North Shore, Palm Desert, Rancho Mirage, Thermal, and Thousand Palms in Riverside County, as well as the communities of Bombay Beach, Desert Shores, Hot Mineral Spa, Salton Sea Beach, and Salton City in Imperial County.

Coachella Valley Water District Valley-Wide Model Water Efficient Landscaping Ordinance No. 1302: The CVWD Board of Directors adopted Ordinance No. 1302 in March 2003 and amended it in November 2009. The purpose of the Valley-Wide Model Water Efficient Landscaping Ordinance is to establish effective water-efficient landscape requirements for newly installed and rehabilitated landscapes and to implement the requirements of the California Water Conservation in Landscaping Act, Statutes of 1990, Chapter 1145 (AB 325). Through this ordinance, CVWD intends to promote water conservation through climate-appropriate plant material and efficient irrigation design and implementation.

Palm Desert Municipal Code: The Palm Desert Municipal Code establishes regulations and standards related to development and operations in the Planning Area.

Impacts and Mitigation Measures

Analysis Approach

Evaluation of the General Plan update was based on review of the current facilities, the City’s Municipal Code, and other relevant literature. This material was compared to the General Plan’s water supply and use–related impacts, as well as impacts related to wastewater. The impact analysis below focuses on whether those impacts would have a significant effect on the physical environment.

Draft General Plan Update Policies and Implementation Actions

The following General Plan update policies and implementation actions address water supply and use and wastewater:

Policies

Public Utilities & Services Element

- **Policy 1.1: Stormwater infrastructure for new development.** Require development projects pay for their share of new stormwater infrastructure or improvements necessitated by that development (regional shallow ground water).
- **Policy 1.2: On-site stormwater retention and infiltration.** Whenever possible, stormwater shall be infiltrated, evapotranspired, reused or treated on-site in other ways that improve stormwater quality and reduce flows into the storm drain system.

- **Policy 1.3: Groundwater infiltration.** Encourage the use of above-ground and natural stormwater facilities in new development and redevelopment, such as vegetated swales and permeable paving.
- **Policy 1.4: Stormwater re-use and recycling.** Encourage innovative ways of capturing and reusing stormwater for non-drinking purposes to reduce the use of potable drinking water.
- **Policy 1.5: Recycled water.** Work with the CVWD to encourage existing golf courses to connect to its recycled water system.
- **Policy 1.6: Collaborative stormwater management.** Encourage collaborative, integrated stormwater management between multiple property owners and sites.
- **Policy 1.7: Low impact development.** Require the use of low-impact development strategies to minimize urban run-off, increase site infiltration, manage stormwater and recharge groundwater supplies.
- **Policy 1.8: Green infrastructure in public rights-of-way.** Encourage green streets with in-street bio-retention and other forms of stormwater retention and infiltration in streets and public rights-of-way.
- **Policy 1.9: Regional and local collaboration.** Collaborate with Thousand Palms, Rancho Mirage, Cahuilla Hills, Bermuda Dunes, and agencies in the watershed to reduce and remove contaminants from stormwater runoff.
- **Policy 1.10: Stormwater in urban context.** Development projects shall incorporate stormwater management into landscaping, except in downtown designations where catch basins shall be prohibited.
- **Policy 1.11: Water quality detention basins.** Require water detention basins to be aesthetically pleasing and to serve recreational purposes, such as in the form of a mini park. Detention basins designed for active uses are intended to supplement park and open space and should not be counted towards a developer's minimum park requirements, unless otherwise determined by the Planning Commission or City Council.
- **Policy 1.12: Retention basins.** Encourage storm water retention basins, especially in the City Center Area, to be underground in future development so as to achieve the most efficient use of land and compact development and promote the urban character goals of the General Plan.
- **Policy 1.13: Soil erosion.** Require the prevention of water-born soil erosion from sites, especially those undergoing grading and mining activities.
- **Policy 2.1: Sewer system maintenance.** Work with the Coachella Valley Water District to ensure sewers are operational and in good working order.
- **Policy 2.2: Sewer infrastructure for new development.** Require development projects to pay for their share of new sewer infrastructure or improvements necessitated by that development.

- **Policy 2.3: Sewer connections.** In the event that a sewer line exists in the right-of-way where a lateral line connection is required to serve a lot, require a sewer connection at the time the lot is developed.
- **Policy 3.1: Agency coordination.** Coordinate on an ongoing basis with the Coachella Valley Water District, and other agencies responsible for supplying water to the region.
- **Policy 3.2: Water supply.** Provide a clean, reliable citywide water supply sufficient to serve existing and planned development.
- **Policy 3.3: Water infrastructure.** Maintain existing water infrastructure to protect the supply, quality, and delivery of potable water.
- **Policy 3.4: Water infrastructure for new development.** Require development projects to pay for their share of new water infrastructure or improvements necessitated by that project.
- **Policy 3.5: Recycled water.** Expanded use of recycled water in existing and new development.
- **Policy 3.6: Citywide water conservation and efficiency.** Encourage and promote community water conservation and efficiency efforts, including indoor and outdoor efforts that exceed CalGreen requirements.
- **Policy 3.7: Priority infrastructure improvements.** Prioritize water infrastructure improvements in areas with failing, insufficient or end of useful life infrastructure.

Environmental Resources Element

- **Policy 1.1: Water conservation technologies.** Promote indoor and outdoor water conservation and reuse practices including water recycling, grey water reuse and rainwater harvesting.
- **Policy 1.2: Landscape design.** Encourage the reduction of landscaping water consumption through plant selection and irrigation technology.
- **Policy 1.3: Conservation performance targeted to new construction.** Incentivize new construction to exceed the state’s Green Building Code for water conservation by an additional 10 percent.
- **Policy 1.4: Greywater.** Allow the use of greywater and establish criteria and standards to permit its safe and effective use (also known as on-site water recycling).
- **Policy 1.5: Waterways as amenities.** When considering development applications and infrastructure improvements, treat waterways as amenities, not hazards, and encourage designs that embrace the waterways.

Safety Element

- **Policy 3.1: Flood Risk in New Development.** Require all new development to minimize flood risk with siting and design measures, such as grading that prevents adverse drainage impacts to adjacent properties, on-site retention of runoff, and minimization of structures located in floodplains.

- **Policy 3.2: Flood Infrastructure.** Require new development to contribute to funding regional flood control infrastructure improvements.
- **Policy 3.3: Stormwater Management.** Monitor, update, and enforce stormwater management plans in coordination with regional agencies, utilities, and other jurisdictions

Implementation Actions

- **Action 2.49.** Continue to maintain and enforce regulations and guidelines for the development and maintenance of project-specific on-site retention/detention basins to control stormwater and implement the NPDES program, including measures to enhance groundwater recharge, complement regional flood control facilities, and address applicable community design policies.
- **Action 2.50.** Identify opportunities for creative public projects that provide “proof of concept” for innovative dual-use and stormwater management while also addressing risks to floods.

Thresholds of Significance

The impact analysis provided below is based on the following State CEQA Guidelines Appendix G standards of significance. A utilities impact is considered significant if implementation of the updated General Plan would:

	Threshold	Determination
1.	Exceed wastewater treatment requirements of the Colorado River Basin Regional Water Quality Control Board	Less Than Significant
2.	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	Less Than Significant
3.	Cause the CVWD to determine it has inadequate capacity to serve projected demand for wastewater treatment, in addition to its existing commitments	Less Than Significant
4.	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.	Less Than Significant
5.	Have insufficient water supplies available to serve the project from existing entitlements and resources, or would require new or expanded entitlements.	Less Than Significant
6.	Cumulative water and wastewater impacts	Less Than Significant

Impacts and Mitigation Measures

- IMPACT 4.14.6-1** **Exceed Wastewater Treatment Requirements.** *Implementation of the General Plan update would result in an increase in population in the Planning Area, which would increase the amount of wastewater*

*treated by the Coachella Valley Water District. However, General Plan update policies would require development projects to pay for their share of new sewer infrastructure or improvements necessitated by that development. Therefore, this impact would be **less than significant**.*

The increased population resulting from implementation of the General Plan update would generate additional wastewater flows that would be treated by the Coachella Valley Water District. Effluent from the city is conveyed to CVWD’s Cook Street plant (WRP 10), which treats an average of 10 million gallons per day and had a capacity of 18 mgd in 2014. Effluent from Bermuda Dunes, Del Webb’s Sun City, and other development north of Miles Avenue is conveyed to the treatment plant located at Madison Street and Avenue 38 (WRP 7). This plant treats approximately 2.5 million gallons per day of wastewater and has a capacity of 5 mgd.

Because the implementation of the General Plan update facilitates future development, an increase wastewater flow is expected to occur to accommodate the increase in population. However, because no specific development is proposed as part of the updated General Plan, wastewater generation rates are based on the estimation of probable future land uses as a result of the General Plan update.

General Plan Public Utilities & Services Element Policy 2.1 states that the City of Palm Desert will work with the Coachella Valley Water District to ensure sewers are operational and in good working order. Policy 2.2 requires development projects to pay for their share of new sewer infrastructure or improvements necessitated by that development. This policy would ensure that increased demand associated with an increase in population would not significantly increase wastewater service demands. Therefore, implementation of the General Plan update would result in a **less than significant** impact with regard to compliance with wastewater treatment requirements.

Mitigation Measures

None required.

IMPACT 4.14.6-2 **Require or result in the construction of new water or wastewater treatment facilities; cause the CVWD to determine it has inadequate capacity to serve projected demand for wastewater treatment.**
*Implementation of the General Plan update would result in an increase in population in the Planning Areas, which would increase the demand for water and wastewater treatment. However, the anticipated increase in wastewater generated would not exceed the capacity of the existing treatment plants or result in the need for the construction or expansion of water or wastewater treatment facilities that would result in significant environmental effects. Therefore, this impact would be **less than significant**.*

The increased population resulting from implementation of the General Plan update would generate additional wastewater flows that would be treated by the Coachella Valley Water District. Effluent from the city is conveyed to CVWD’s Cook Street plant (WRP 10), which treats an average of 10 million gallons per day and had a capacity of 18 mgd in 2014. Effluent from Bermuda Dunes, Del Webb’s Sun City, and other development north of Miles Avenue is conveyed to the treatment plant located at

Madison Street and Avenue 38 (WRP 7). This plant treats approximately 2.5 million gallons per day of wastewater and has a capacity of 5 mgd.

Because the implementation of the General Plan update facilitates future development, an increase wastewater flow is expected to occur to accommodate the increase in population. However, because no specific development is proposed as part of the updated General Plan, wastewater generation rates are based on the estimation of probable future land uses as a result of the General Plan update. At buildout, the population is projected to increase to 61,690 residents in 31,401 units. This is an increase of 11,905 residents and 8,049 units over current population estimates.¹ Using a wastewater generation rate of 230 gallons per day per capita (County of Riverside 2015), future growth anticipated under the proposed General Plan update would result in an increased demand for wastewater treatment by approximately 2,738,150 million gallons per day,² which would represent an approximately 12 percent increase in use for both WRP 7 and WRP 10, which have a combined capacity of 23.0 mgd. This increase is not considered a substantial increase over existing capacity. Additionally, future development would be required to pay development impact fees and connection fees, which would fund any potential future expansion of the water reclamation plants in CVWD’s jurisdiction. Actual expansion of any facilities would be subject to subsequent project-level environmental review. The site-specific environmental impacts associated with the wastewater infrastructure improvements needed to serve new development would be determined through project-level CEQA analysis at such time as they are proposed for development and their design and alignment are known. **Table 4.14.6-2** identifies the types of potential project-specific environmental impacts from further expansion of the water reclamation plants and the improvement and/or extension of wastewater conveyance infrastructure. However, the potential programmatic environmental impacts that could be associated with expansion of these facilities have been identified and disclosed in this Draft EIR as part of overall development of the Palm Desert Planning Area.

Table 4.14.6-2 Types of Potential Environmental Impacts Associated with New Wastewater Treatment and Supply Infrastructure

Types of Potentially Affected Resources	Related and Potential Impacts
Geology and Soils	Increase in erosion and sedimentation from construction activities; geologic hazards could cause problems for new facilities and their operators if they are not sited carefully.
Wetlands	Changes in the amount or functions and values of various types of wetlands from the construction of new facilities.
Biological Resources Including Special-Status Species	Disturbance to rare plants and their habitat and other types of vegetation from construction activities.

¹ Current population estimates based on 2012 data.

² 11,905 additional persons x 100 = 2,738,150 gallons daily.

Table 4.14.6-2, continued

Types of Potentially Affected Resources	Related and Potential Impacts
Wildlife Resources Including Special-Status Species	Changes in the amount and quality of affected wildlife habitat from construction activities.
Visual Resources	Short-term direct visual impacts associated with construction activities (trunk sewers). Addition of new project facilities could affect the visual environment. New pipelines and pumping stations near or in residential areas or highly visited areas would cause negative impacts. Adverse visual impacts during the construction and operation of new or expanded wastewater infrastructure.
Agriculture	Permanent direct loss of agricultural productivity (trunk sewer construction, operation, and percolation ponds) and potential indirect conversion of agricultural land by expansion of urban services through agricultural lands in the Palm Desert Planning Area (sewer mains). Some irrigated land or grazing land could be taken out of production where project conveyance facilities need to be located to accommodate growth.
Cultural Resources	Historic, prehistoric, and ethnographic resources could be affected by the construction and maintenance of new facilities.
Public Utilities	The routing and siting of new project facilities could interfere with the operation or maintenance of existing or planned public utilities, including communication and energy infrastructure.
Air Quality and Noise	Air quality emissions (direct) of oxides of nitrogen (NOx) during construction (trunk and sewer mains, wastewater treatment capacity expansion). Traffic and loud noises could occur during the construction phase of new projects. Short-term increases in noise during construction (trunk and sewer mains) as well as operational noise from new or expanded lift stations would likely impact nearby residents and recreationists. Adverse odor impacts during the construction and operation of new or expanded wastewater infrastructure.
Transportation	Local roads would experience traffic increases during construction. Property access would be temporarily disrupted during trunk sewer construction.
Public Health and Safety	Construction activities could create some safety hazards. Temporary direct disruption or property access (trunk sewer construction).

Table 4.14.6-2, continued

Types of Potentially Affected Resources	Related and Potential Impacts
Water Quality	Degradation of water quality (surface water and groundwater). Any expansion of the wastewater treatment plan would require a Waste Discharge Requirement (WDR) permit from the Colorado River Basin Regional Water Quality Control Board. This would substantially reduce the possibility of significant water quality impacts.
Growth-Inducing Effects	New wastewater infrastructure would likely cause growth-inducing impacts.

Based on existing capacities and the incremental increase in wastewater flows, both WRP 7 and WRP 10 have enough capacity to accommodate the increase in wastewater flows generated by future development arising from the General Plan update.

Additionally, General Plan policies would help to further reduce associated impacts. Public Utilities & Services Element Policy 2.1 states that the City will work with the Coachella Valley Water District to ensure sewers are operational and in good working order. Policy 2.2 requires development projects to pay for their share of new sewer infrastructure or improvements necessitated by that development. This policy would ensure that increased demand associated with an increase in population would not significantly increase wastewater service demands. Therefore, implementation of the General Plan update would result in a **less than significant** impact with regard to compliance with wastewater treatment requirements.

Mitigation Measures

None required.

IMPACT 4.14.6-3 Demand for Stormwater Drainage Facilities. *Implementation of the General Plan update would result in development in the Planning Area but would generally not increase the amount of impervious surface. General Plan update policies and implementation actions would direct construction of development projects to include on-site drainage improvements, which would reduce the impact on existing stormwater drainage facilities. Therefore, this impact would be **less than significant**.*

Palm Desert is within the service area of the Coachella Valley Water District (CVWD), which provides regional stormwater/flood protection, irrigation water importation and distribution, and irrigation drainage collection for the City of Palm Desert. Given the programmatic nature of the project, the exact quantity of stormwater runoff from future development cannot be determined. The City of Palm Desert is a co-permittee on a Municipal Separate Storm Sewer System (MS4) Permit in the Planning Area. The City is responsible for the development, implementation, and enforcement of stormwater runoff and drainage requirements to protect local and coastal water quality. Please refer to Section 4.9, Hydrology and Water Quality, for additional information on water quality in the Planning Area.

Implementation of the General Plan update would not substantially increase the amount of impervious surfaces in the city. New residential and nonresidential

development and redevelopment activities may provide opportunities to create new pervious surfaces to facilitate groundwater infiltration through new greenspace, landscaping, or use of porous pavements. Incorporation of stormwater management facilities, such as retention basins, swales, or vegetation planted for evapotranspiration, would reduce drainage loads through the stormwater system. Environmental Resources Element Policy 1.1 would promote indoor and outdoor water conservation and reuse practices including water recycling, greywater, reuse, and rainwater harvesting. Policy 1.2 would encourage the reduction of landscaping water consumption through plant selection and irrigation technology. Policy 1.3 would incentivize new construction to exceed the state's Green Building Code for water conservation by an additional 10 percent. Policy 1.4 would allow the use of greywater and establish criteria and standards to permit its safe and effective use (also known as on-site water recycling). Policy 1.5 considers development applications and infrastructure improvements, treats waterways as amenities, not hazards, and encourages designs that embrace the waterways.

Public Utilities & Services Element Policy 1.2 states that, whenever possible, stormwater shall be infiltrated, evapotranspired, reused, or treated on-site in other ways that improve stormwater quality and reduce flows into the storm drain system. Policy 1.3 encourages the use of aboveground and natural stormwater facilities in new development and redevelopment, such as vegetated swales and permeable paving. Policy 1.4 encourages innovative ways of capturing and reusing stormwater for non-drinking purposes to reduce the use of potable drinking water. Policy 1.6 encourages collaborative, integrated stormwater management between multiple property owners and sites. Policy 1.7 requires the use of low-impact development strategies to minimize urban run-off, increase site infiltration, manage stormwater and recharge groundwater supplies. Policy 1.8 encourages green streets with in-street bioretention and other forms of stormwater retention and infiltration in streets and public rights-of-way. Policy 1.9 states that the City will collaborate with Thousand Palms, Rancho Mirage, Cahuilla Hills, Bermuda Dunes, and agencies in the watershed to reduce and remove contaminants from stormwater runoff. Policy 1.10 requires development projects to incorporate stormwater management into landscaping, except in downtown designations where catch basins will be prohibited. Policy 1.12 requires water detention basins to be aesthetically pleasing and to serve recreational purposes, such as in the form of a mini park. Detention basins designed for active uses are intended to supplement park and open space and should not be counted toward a developer's minimum park requirements, unless otherwise determined by the Planning Commission or City Council. Policy 1.12 encourages stormwater retention basins, especially in the City Center area, to be underground in future development so as to achieve the most efficient use of land and compact development and promote the urban character goals of the General Plan.

Safety Element Policy 3.1 would require all new development to minimize flood risk with siting and design measures, such as grading that prevents adverse drainage impacts to adjacent properties, on-site retention of runoff, and minimization of structures located in floodplains. Policy 3.2 would require new development to contribute to funding regional flood control infrastructure improvements. Policy 3.3 would monitor, update, and enforce stormwater management plans in coordination with regional agencies, utilities, and other jurisdictions.

Action 2.49 would continue to maintain and enforce regulations and guidelines for the development and maintenance of project-specific on-site retention/detention basins

to control stormwater and implement the NPDES program, including measures to enhance groundwater recharge, complement regional flood control facilities, and address applicable community design policies. Action 2.50 would identify opportunities for creative public projects that provide “proof of concept” for innovative dual-use and stormwater management while also addressing risks to floods.

If new development were likely to increase stormwater runoff beyond existing capacity, such impacts would be offset by developer fees collected during the development review and CEQA process. Therefore, with implementation of the proposed General Plan policies and implementation actions, impacts to stormwater drainage facilities would be **less than significant**.

Mitigation Measures

None required.

IMPACT 4.14.6-4 **Demand for Water Supplies.** *Implementation of the General Plan update would result in the need for additional water supply. The increased population growth projected from implementation of the General Plan update would be less than that anticipated by the urban water management plans of water suppliers, and no new entitlements would be needed. This impact is **less than significant**.*

CVWD is responsible for the water supply and wastewater treatment in Palm Desert. The district’s principal water supplies are local groundwater, imported Colorado River water, and imported SWP water. The Coachella Canal brings in Colorado River water from the All-American Canal near the Mexico-United States border. CVWD and the Desert Water Agency obtain imported water from the SWP; however, since they do not have a direct connection to the SWP, this water is exchanged with the Metropolitan Water District for water from its Colorado River Aqueduct north of Palm Springs. This water is referred to as SWP Exchange water (CVWD 2012a). Colorado River and SWP Exchange water are currently used only to replenish the groundwater basin; the potable water distribution system does not receive water directly from either imported water source. Similarly, recycled water is used extensively by non-potable water customers for irrigation purposes to offset groundwater pumping, but it is not used to offset the demand of urban potable water customers (CVWD 2012a).

The General Plan update includes land use designations that would allow new residential uses and nonresidential development, generally focused on revitalizing the Highway 111 corridor into a downtown-type City Center and developing the area around the Cal State/UC campus with a mix of housing types and new commercial opportunities.

Water demand can be estimated based on current and future projected population and CVWD current and future service area population. As shown in **Table 4.14.6-3**, the proposed General Plan’s projected increase in population by 2035 would result in a 7 percent decrease of the forecast population for the entire CVWD service area.

Table 4.14.6-3 Water Service Area and Proposed General Plan Population Forecasts

Growth Criteria	Palm Desert Population	Coachella Valley Water District (CVWD)	
		Service Area ¹	Planning Area Percentage of Service Area
Baseline*	49,786	202,660	25%
Future (2035)	60,226	512,200	18%
Difference in Percentage of Service Area			-7%

Source: ¹ CVWD 2011, p. 2-8

Note: * Baseline for Planning Area is year 2012; baseline for CVWD is year 2010.

According to the CVWD’s Urban Water Management Plan (2011), the district has a current baseline water demand rate of 482 gallons per capita per day (gpcd). Based on this baseline water demand rate, future growth anticipated in 2035 under the proposed General Plan would result in an increased demand of 5.0 million gallons per day (mgd), or 5,600 AFY.³ However, according to the CVWD’s Urban Water Management Plan, the district has a target water use demand of 473 gpcd (CVWD 2011, p. 3-6). The City’s Municipal Code has several ordinances in place to ensure water supply and efficiency measures are in place. For example, in the MHDO (Medium/High Density Housing Overlay) District, projects must include water conservation measures such as “blended” water systems, on-site recycling, the use of gray water, and water efficient fixtures (Section 25.28.030 of the Palm Desert Municipal Code). Additionally, Section 24.04.010 of Palm Desert’s Municipal Code codifies CVWD’s water-efficient landscape ordinance (in compliance with the Department of Water Resources Model Water Efficient Landscape Ordinance). This ordinance requires landscape design that incorporates climate appropriate plant material and efficient irrigation for all new and rehabilitated landscaping projects. Compliance with these ordinances will ensure that future development reduces water demand to meet target demands. Based on the target water use demand, the projected population growth assumed under the proposed General Plan would result in an increased demand of 4.9 mgd by 2035, or 5,531 AFY.⁴

Additionally, the City’s pre-application review procedure and development review process include a determination regarding the availability of water and sewer service. Therefore, the availability of adequate water service, including water supplies, would need to be confirmed by the Coachella Valley Water District prior to the approval of any future development.

Furthermore, the updated General Plan would reduce the demand for water supply with the following policies and implementation actions. Public Utilities & Services Element Policy 1.5 requires the City to work with CVWD to encourage existing golf

³ 10,440 additional persons x 482 = 5,032,080 gallons daily. 5,032,080 gallons daily x 365 = 1,836,709,200 gallons yearly, or 5,600 AFY

⁴ 10,440 additional persons x 473 = 4,938,120 gallons daily. 4,938,120 gallons daily x 365 = 1,802,413,800 gallons yearly, or 5,531 AFY

courses to connect to its recycled water system. Policy 1.7 would require the use of low-impact development strategies to minimize urban runoff, increase site infiltration, manage stormwater, and recharge groundwater supplies. As demonstrated,

Mitigation Measures

None required.

Cumulative Impacts and Mitigation Measures

Water supply and service are not confined by jurisdictional boundaries; rather, they are dependent on the regional watershed and hydrologic conditions in surrounding areas. The planning area is located in the Salton Sea watershed and the Whitewater River subbasin of the Coachella Valley Groundwater Basin. When analyzing cumulative impacts to water supply and service, it is necessary to consider upstream and downstream areas and water bodies that could influence or be influenced by actions within the planning area. Thus, the watershed is the general area of influence used in analysis of cumulative impacts for this topic.

IMPACT 4.14.6-5 Cumulative Water and Wastewater Impacts. *Implementation of the proposed General Plan update, in combination with other existing, planned, proposed, approved, and reasonably foreseeable development in the region, would increase the demand for water supply and wastewater treatment. The provision of associated facilities could result in environmental impacts. The proposed project's contribution to the need for expanded water services is considered **less than cumulatively considerable** given requirements for project-level CEQA review and the proposed General Plan update's policies and implementation actions.*

Subsequent project-level CEQA review of future facilities and policies and implementation actions in the updated General Plan would ensure that cumulative environmental impacts associated with wastewater and water services would be **less than cumulatively considerable**.

Mitigation Measures

None required.

Solid Waste

Environmental Setting

Solid waste disposal services in Palm Desert are provided by the commercial vendor Burrtec. Solid waste collected from Palm Desert residents and businesses is hauled to the Edom Hill Transfer Station in Cathedral City and is then transported to Lambs Canyon in Beaumont. Commingled recyclable materials (e.g., paper, plastic, glass, cardboard, aluminum) are transported to Burrtec's material recovery facility in Escondido. **Table 4.14.7-1** lists 2013 disposal numbers from Burrtec.

Table 4.14.7-1 Palm Desert Solid Waste Disposal (2013)

Description	2013 Totals (tons)
Refuse (net of residual)	
Residential Trash	12,982.55
Commercial Trash	39,945.15
Roll-Off Trash	0.00
Refuse (net of residual) Totals	52,927.70
Refuse (residual)	
Residential (residual)	1,599.85
Commercial (residual)	1,218.10
Refuse (residual) Totals	2,817.95
School Trash	942.38
Refuse Totals	56,688.03
Recycling (net of residual)	
Residential Curbside	4,149.09
Buy-Back	222.78
Commercial	2,637.41
Ride-Off	774.52
Recycling (net of residual) Totals	7,783.80
School	521.08
Recycling (net of residual) Totals	8,304.88
Greenwaste	
Residential Curbside	3,602.76
Residential Self Haul	200.20
Roll-Off	11,216.01
Food Waste Composting	235.82
Greenwaste Totals	15,254.79
School	38.13
Greenwaste Totals	15,292.92
Special Waste (Roll-Off)	
Ash	0.00
Sludge	0.00
Tires	0.00
White Goods	0.00
Scrap Metal	0.00
Wood Waste	0.00
Concrete/Asphalt/Rubble	2,456.35
Disaster Debris	0.00
Shingles	0.00
Rendering	0.00
Other Special Waster	0.00
Special Waste (Roll-Off) Totals	2,456.35
Household Hazardous Waste	
Permanent Facility	0.00
Mobile/Periodic Facility	0.00
Curbside Collection	0.00
Waste Exchange	0.00
Education Programs	0.00
Other HHW	30.59
Special Waste (Roll-Off) Totals	30.59
COMBINED RECYCLING TOTALS	20,084.74

Source: Ream 2014

The City offers an At-Home Household Hazardous Waste (HHW) Collection program to Palm Desert residents. Residents are allowed four pickups per year at no charge

through Burrtec. The waste is processed through the City's Permanent Household Hazardous Waste Facility (PHHWF) by Clean Harbors. The facility also accepts hazardous waste from conditional exempt small quantity generators at no charge for up to \$300 in disposal costs per year. During 2013, the PHHWF collected 5.26 tons and the At-Home HHW Collection program collected 22.1 tons of hazardous waste.

Regulatory Setting

The following state plans, policies, regulations, and laws pertain to solid waste in the Planning Area.

State

California Integrated Waste Management Act: To minimize the amount of solid waste that must be disposed of by transformation and land disposal, the California Legislature passed the California Integrated Waste Management Act of 1989 (AB 939, Statutes of 1989), effective January 1990. Per this act, all cities and counties were required to divert 25 percent of all solid waste from landfill facilities by January 1, 1995, and 50 percent by January 1, 2000. To help in the increase of diversion rates, each jurisdiction is required to create an integrated waste management plan. Each city plan must demonstrate integration with the relevant county plan. The plans must promote source reduction, recycling and composting, and environmentally safe transformation and land disposal. Elements of the plans must be updated every five years.

AB 939 established the California Integrated Waste Management Board (CIWMB; now the California Department of Resources Recycling and Recovery [CalRecycle]) to oversee integrated waste management planning and compliance. The bill's passage led to the refinement of a statewide system of permitting, inspections, maintenance, and enforcement for waste facilities in California, and also required the CIWMB to adopt minimum standards for waste handling and disposal to protect public health and safety and the environment. CalRecycle is responsible for approving permits for waste facilities, approving local agencies' diversion rates, and enforcing the planning requirements of the law through local enforcement agencies (LEA). LEAs are responsible for enforcing laws and regulations related to solid waste management, issuing permits to solid waste facilities, ensuring compliance with state-mandated requirements, coordinating with other government agencies on solid waste-related issues, and overseeing corrective actions at solid waste facilities. LEAs inspect facilities, respond to complaints, and conduct investigations into various aspects of solid waste management.

Sewer System Management Plan: The SWRCB adopted new policies in December 2004 requiring wastewater collection providers to report sanitary sewer overflows and to prepare and implement Sewer System Management Plans (SSMP). SSMP requirements are modeled on proposed federal capacity, management, operations, and maintenance plans. The SSMP policy requires dischargers to provide adequate capacity in the sewer collection system, take feasible steps to stop sewer overflows, identify and prioritize system deficiencies, and develop a plan for disposal of grease, among other requirements. CVWD last prepared a Sewer System Management Plan in 2014.

Impacts and Mitigation Measures

Analysis Approach

The analysis of impacts is based on the likely consequences of adoption and implementation of the General Plan update compared to existing conditions. The following analysis is both quantitative and qualitative and is based on available information for services in the Planning Area. The analysis assumes that all future and existing development in the Planning Area complies with applicable laws, regulations, standards, and plans. An analysis of cumulative impacts uses quantitative and qualitative information for the Planning Area and applicable broader service areas.

Draft General Plan Update Policies and Implementation Actions

Policies

Public Utilities & Services Element

- **Policy 4.1: Provide waste and recycling services.** Provide solid waste, recycling, and green waste services to the community at a reasonable rate.
- **Policy 4.2: Zero waste government operations.** Strive for zero waste government operations, modeling best practices in solid waste management and recycling for the rest of the community.
- **Policy 4.3: Waste reduction.** Seek to continually reduce Palm Desert’s rate of waste disposal per capita, and to increase the diversion rate of recycling and green waste.
- **Policy 4.4: Recycled building material.** Encourage the use of recycled building and infrastructure materials in new public and private development.
- **Policy 4.5: Paper waste reduction.** Reduce paper waste and encourage the use of recycled paper in City operations.
- **Policy 4.6: Community coordination.** Confer and coordinate with utility and civic services providers in planning, designing and siting of distribution and supporting facilities to assure the timely expansion of facilities in a manner that minimizes environmental impacts and disturbance of existing improvements.

Implementation Actions

- **Action 2.36.** Continue to confer and coordinate with the solid waste franchisee to fully meet and if possible exceed the provisions from AB 939 by expanding recycling programs that divert valuable resources from the waste stream and returning these materials to productive use.

Thresholds of Significance

The impact analysis provided below is based on the following State CEQA Guidelines Appendix G standard of significance. A solid waste impact is considered significant if implementation of the General Plan update would:

	Threshold	Determination
1.	Be served by a landfill with insufficient permitted capacity to accommodate the project’s solid waste disposal needs; not comply with federal, state, and local statutes and regulations related to solid waste	Less Than Significant

Threshold	Determination
2. Cumulative solid waste impacts	Less Than Significant

Impacts and Mitigation Measures

IMPACT 4.14.7-1 Demand for Solid Waste Disposal and Compliance with Federal, State, and Local Statutes and Regulations Related to Solid Waste.
*Implementation of the General Plan update would result in additional solid waste disposal needs. Adequate capacity exists in the landfills receiving waste generated in Palm Desert to accommodate these additional needs. Therefore, this impact would be **less than significant**.*

Future development would generate solid waste that would be disposed of in the Mecca II and Oasis landfills, potentially hastening the end of their usable lives and contributing to the eventual need for new or expanded landfill facilities. Riverside County EIR No. 521 uses a residential solid waste generation factor of 0.41 tons per dwelling unit. Using that factor, the project would generate an additional 12,874.41 tons of waste (31,401 du x 0.41 tons per du = 12,874.41 tons).

Each of the serving landfills has remaining capacity (60,267 tons, collectively) to serve future development resulting from the proposed project (Merlan 2015). Furthermore, as waste originating anywhere in Riverside County may be accepted for disposal at any of the landfill sites in the county, other landfills in the county could accept generated waste. As part of its long-range planning and management activities, the Riverside County Waste Management Department (RCWMD) ensures that Riverside County has a minimum of 15 years of capacity, at any time, for future landfill disposal. The 15-year projection of disposal capacity is prepared each year by as part of the annual reporting requirements for the Countywide Integrated Waste Management Plan. The most recent 15-year projection by the RCWMD indicates that no additional capacity is needed to dispose of countywide waste through 2024, with a remaining disposal capacity of 28,561,626 tons in the year 2024 (County of Riverside 2015b).

In addition, all future development would be required to comply with the mandatory commercial and multi-family recycling requirements of Assembly Bill 341. Furthermore, Public Utilities and Services Element Policies 4.1 through 4.6 and Action 2.36 would reduce the demand for solid waste disposal.

The California Integrated Waste Management Act requires each city and county to prepare, adopt, and submit to CalRecycle a source reduction and recycling element that demonstrates how the jurisdiction will meet the Integrated Waste Management Act's mandated diversion goals. Each jurisdiction's SRRE must include specific components, as defined in Public Resources Code Sections 41003 and 41303. No aspect of the proposed General Plan would be expected to conflict with this requirement. The City of Palm Desert has implemented many programs within the community as well as within its own organization to serve this purpose. Through such efforts, as of 2008, the City has achieved a 72-percent diversion rate. Because there is adequate capacity at existing landfills to serve future development, and future development would be required to meet County and state recycling requirements to further reduce demands on area landfills, this impact would be **less than significant**.

Mitigation Measures

None required.

Cumulative Impacts and Mitigation Measures

The cumulative impact area for solid waste is primarily the service area of the Mecca II and Oasis landfills.

IMPACT 4.14.7-2 **Cumulative Solid Waste Impacts.** *Implementation of the General Plan update, in combination with other existing, planned, proposed, approved, and reasonably foreseeable development in the region, would increase the demand for solid waste facilities. The provision of these facilities could result in environmental impacts. The General Plan update's contribution to the need for expanded solid waste services is considered **less than cumulatively considerable** given requirements for project-level CEQA review and the policies and implementation actions of the General Plan update.*

Subsequent project-level CEQA review of future facilities, along with the General Plan update policies and implementation actions, would ensure that cumulative environmental impacts associated with the continued provision of solid waste facilities would be **less than cumulatively considerable**.

Mitigation Measures

None required.

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4.15. Transportation

Introduction

This chapter evaluates the potential environmental effects related to transportation associated with implementation of the Palm Desert General Plan update. The analysis includes a review of the vehicular, transit, bicycle, and pedestrian components of the circulation system. General Plan policies and implementation actions presented in the Mobility Element provide a framework to evaluate, manage, and improve transportation infrastructure and practices to address increased congestion and serve all modes of transportation.

Environmental Setting

The existing transportation system in Palm Desert is summarized below.

Multi-modal Transportation System

The transportation system includes diverse elements such as roadway systems, bicycle systems, golf cart facilities, and a public transit system providing both local and regional bus service. Elements of the transportation system in Palm Desert are discussed in greater detail below.

Roadway Network

The General Plan Mobility Element designates nine different roadway types in the city. **Table 4.15-1** summarizes street classification and characteristics, and **Table 4.15-2** outlines examples of the classified facilities in Palm Desert. Primary roadways include Highway 111, Portola Avenue, Monterey Avenue, Fred Waring Drive, and Cook Street, as illustrated in **Figure 4.15-1**. Regional access is provided by Interstate 10 (I-10), which forms the city's northern boundary.

Table 4.15-1 Palm Desert Roadway Functional Classifications

Roadway Type	Description of Typical Street Cross-Section Characteristics
Enhanced Arterial	<p>Enhanced arterials serve vehicular traffic but also have augmented bicycle and pedestrian facilities. Emphasis is placed on enhanced pedestrian crossings, street trees, and other similar amenities. Speeds are managed through mechanisms such as narrower lanes, shorter blocks, and enhanced landscaping.</p> <p>The general cross section consists of a six-lane divided roadway, including a wide median with trees and landscaping. This facility may provide dedicated left turn lanes as well as a right turn lane where warranted.</p>
Vehicular-Oriented Arterial	<p>Vehicular-oriented arterials prioritize the movement of automobiles. Bicycle and pedestrian facilities are provided wherever possible but are not emphasized. Driveway spacing is limited to reduce conflicts with through traffic.</p> <p>The general cross section consists of a six-lane divided roadway, including a median with trees and landscaping. This facility may consist of dedicated left turn lanes as well as a right turn lane where warranted.</p>

Table 4.15-1, continued

Roadway Type	Description of Typical Street Cross-Section Characteristics
Balanced Arterial	<p>Balanced arterials strive for a balance between all travel modes including vehicles, bicyclists, and pedestrians. Bicycle and pedestrian facilities are provided, though not at the level of the enhanced arterial.</p> <p>The general cross section consists of a four-lane divided roadway, including either a median or a two-way left turn lane. This facility may consist of dedicated left turn lanes as well as right turn lanes where warranted.</p>
Enhanced Secondary Roadway	<p>Enhanced secondary roadways provide high levels of bicycle and pedestrian amenities, similar to enhanced arterials. Vehicular circulation is accommodated but not emphasized.</p> <p>The general cross section consists of a four-lane divided roadway with a median. This facility may provide dedicated left turn lanes.</p>
Secondary Street	<p>Secondary streets provide a balance between vehicular circulation, property access, and non-automotive modes. Bicycle and pedestrian facilities are provided, but not at the level of the enhanced secondary roadway</p> <p>The general cross section consists of a four-lane divided roadway with a median. This facility may provide dedicated left turn lanes</p>
Downtown Collectors	<p>Downtown collector streets funnel pedestrian, bicycle, and vehicular traffic to from neighborhoods to downtown Palm Desert.</p> <p>The general cross section consists of a two-lane undivided roadway.</p>
Collector Streets	<p>Collector streets funnel pedestrian, bicycle, and vehicular traffic to enhanced arterials, vehicular-oriented arterials, balanced arterials, enhanced secondary roadways, and secondary streets.</p> <p>The general cross-section consists of a two-lane undivided roadway.</p>
El Paseo	<p>El Paseo is a key commercial roadway for the city. This roadway prioritizes property access and includes a very high level of pedestrian amenities.</p> <p>The cross section consists of four vehicular travel lanes, two parking lanes, and a wide median with trees and landscaping. Dedicated left turn lanes are provided as well as a right turn lane where warranted.</p>

Source: Palm Desert General Plan Mobility Element, 2016

Table 4.15-2 Palm Desert Roadways

Classification	Streets
Enhanced Arterials	Highway 111 (Monterey Avenue to Deep Canyon Road)
Vehicular-Oriented Arterials	Monterey Avenue
	Cook Street
	Washington Street
	Fred Waring Drive
	Highway 11 (western city boundary to Monterey Avenue and Deep Canyon Road to eastern city boundary)

Table 4.15-2, continued

Classification	Streets
Balanced Arterials	Portola Avenue (Dinah Shore Drive to Haystack Road)
	Frank Sinatra Drive (Monterey Avenue to Interstate 10)
	Hovley Lane (Portola Avenue to Washington Street)
	Eldorado Drive (Frank Sinatra Drive to Hovley Lane)
	Gerald Ford Drive (Monterey Avenue to Cook Street)
Enhanced Secondary Roadways	Gerald Ford Drive (Cook Street to Frank Sinatra Drive)
	Magnesia Falls Drive
	Parkview Drive
	San Pablo Avenue
Secondary Streets	Deep Canyon Road (Highway 111 to Fred Waring Drive)
	Mesa View Drive
	Portola Avenue (Mesa View Drive to Haystack Road)
	Gateway Drive
Downtown Collectors	San Gorgonio Way
	De Anza Way
	Shadow Mountain Drive
	Deep Canyon Road (Magnesia Falls Drive to Fred Waring Drive and Highway 111 to Fairway Drive)
Collector Streets	Grapevine Street
	California Drive
	Hovley Lane West (Monterey Avenue to Portola Avenue)
	College Drive
	Haystack Road

Source: Palm Desert General Plan Mobility Element, 2016

Transit

The SunLine Transit Agency provides transit service in Palm Desert, including a demand-responsive paratransit service. Six SunLine bus routes serve the city: 32, 53, 54, 70, 111, and Commuter Link 220. Routes operated by the agency are summarized in **Table 4.15-3**.

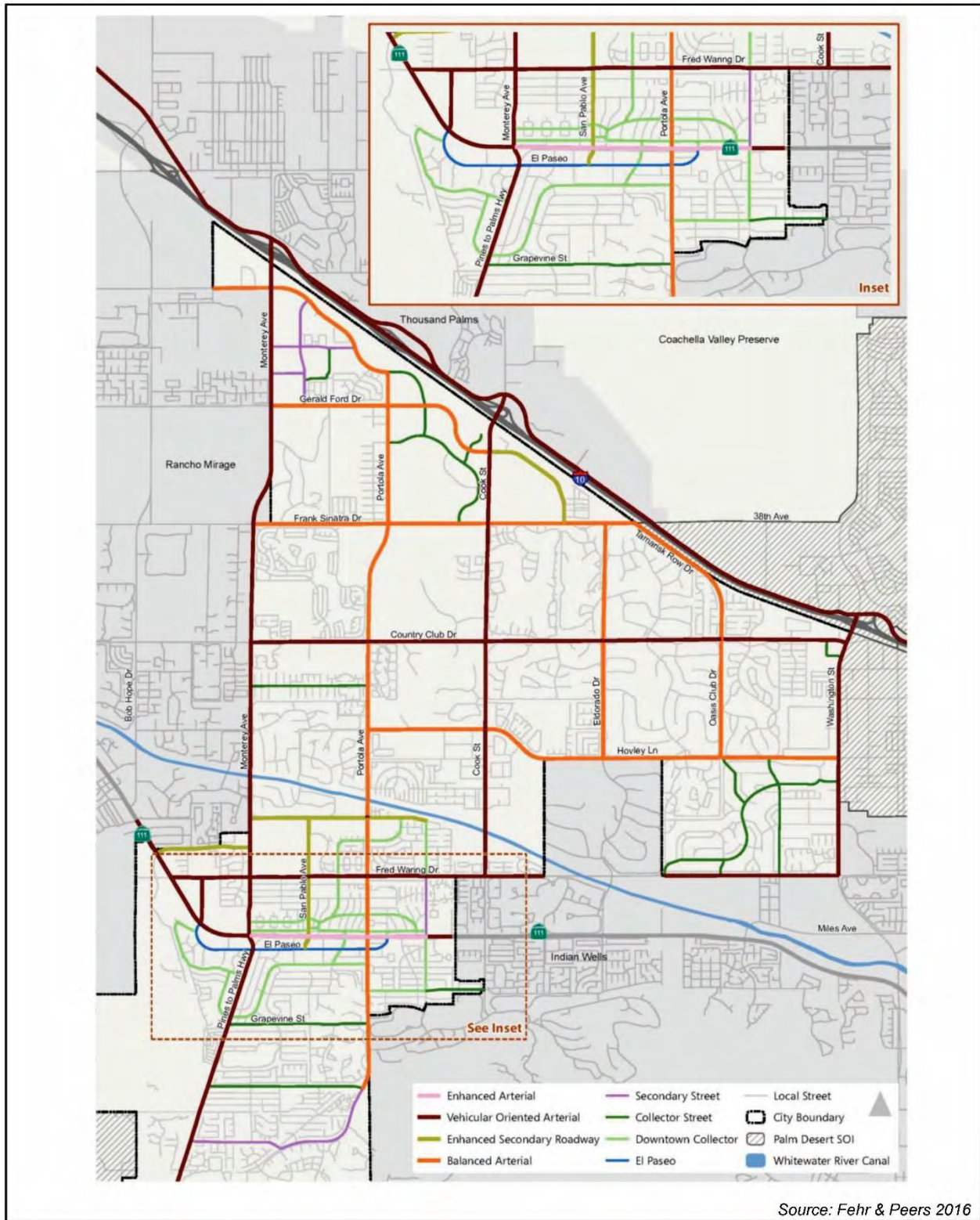
Table 4.15-3 SunLine Transit Agency Routes

Line	From	To	Weekday Headway	Weekend Headway
32	Palm Desert	Palm Springs	50 min	60 min
53	Xavier High School	Palm Desert Mall	40–60 min	80 min
54	Palm Desert	Indio	40–50 min	(no service)
70	Bermuda Dunes	La Quinta	45 min	90 min
111	Palm Springs	Coachella	20–40 min	20–40 min
220	Palm Desert	Riverside	N/A ¹	(no service)

Source: SunLine Transit Agency 2014

1. Commuter Link 220 provides two westbound buses and one eastbound bus in the morning and one westbound bus and two eastbound buses in the evening.

Figure 4.15-1 Palm Desert Roadways and Classifications



Unlike fixed-route transit service, paratransit service does not follow fixed routes or schedules. Paratransit can consist of vans or mini-buses that provide on-demand curb-to-curb service from any origin to destination within the service's specified service area. Qualifying residents can utilize the SunLine Transit Agency's SunDial service. SunDial is a curb-to-curb paratransit service serving Coachella Valley residents unable to use regular bus service.

SunDial provides next day transportation service within three-quarters of a mile on either side of any local SunLine bus route (excluding Commuter Link 220 and North Shore Line 95). Service within the same city is \$1.50 and between cities is \$2.00. Eligible residents may also purchase a 10-ride same-city pass for \$15.00 or a city-to-city pass for \$20.00.

Bicycle and Golf Cart Facilities

Bicycles and golf carts share an extensive system of shared and separated facilities along Palm Desert's roadways. These facilities consist of Class I separated paths, Class II striped lanes, Class III shared roadways, and shared sidewalks. Class II striped lanes, which are dedicated lane of one-way travel within the paved section of the street, exist on many of Palm Desert's roadways including Highway 74, Country Club Drive, Cook Street, and portions of Portola Avenue and Monterey Avenue. Class III shared roadways having a right-of-way with shared use with other motorists are on El Paseo, Shadow Mountain Drive, Town Center Way, San Geronio Way, De Anza Way, and other roads (see **Figure 4.15-2**).

Pedestrian Environment

The suburban, tract housing layout in a significant portion of the city has resulted in a somewhat automobile dominant community. The existing General Plan's Circulation Element concedes that while sidewalks have been constructed in various parts of the city, in some areas their design and construction has been inconsistent, disjointed, and unconnected. However, the commercial shopping centers near the Westfield Mall, El Paseo Shopping District, and Desert Crossing Mall do offer a pleasant pedestrian experience.

Six factors that might affect walkability and the pedestrian experience in the city at large have been analyzed:

- **Sidewalk Continuity.** Communities are more walkable if sidewalks do not end abruptly and are present on the entire segment and both sides of a roadway. This is especially important for the mobility-impaired or those pushing small children in strollers.
- **Sidewalk Conditions.** This refers to the physical condition of sidewalk surfaces. Sidewalks that are broken or cracked can deter walkability and pose a safety hazard, particularly for the mobility impaired, such as those in wheelchairs and persons using walkers or strollers.
- **Shading.** Persons are more inclined to walk in areas where there is shade present, particularly in Southern California and the Coachella Valley with its relatively warm weather and limited rainfall as compared to other locations. Additionally, shade trees create an aesthetic value that is pleasing to the pedestrian.

- **Grade.** Persons are more inclined to walk in areas that are relatively flat or have limited grade changes.
- **Amenities.** All items being equal, persons are more inclined to walk in areas that are interesting environments with shopping, retail, restaurants, and other similar uses. Pedestrian-friendly amenities include street furniture, attractive paving, wayfinding signage, enhanced landscaping, and improved lighting.
- **Buffers.** A more walkable environment is one in which there is some degree of separation between the pedestrian and the motorist. This typically includes wider sidewalks, street parking, and sidewalk bulb-outs at intersections where feasible. Crosswalks with appropriate signage serve as an important buffer.

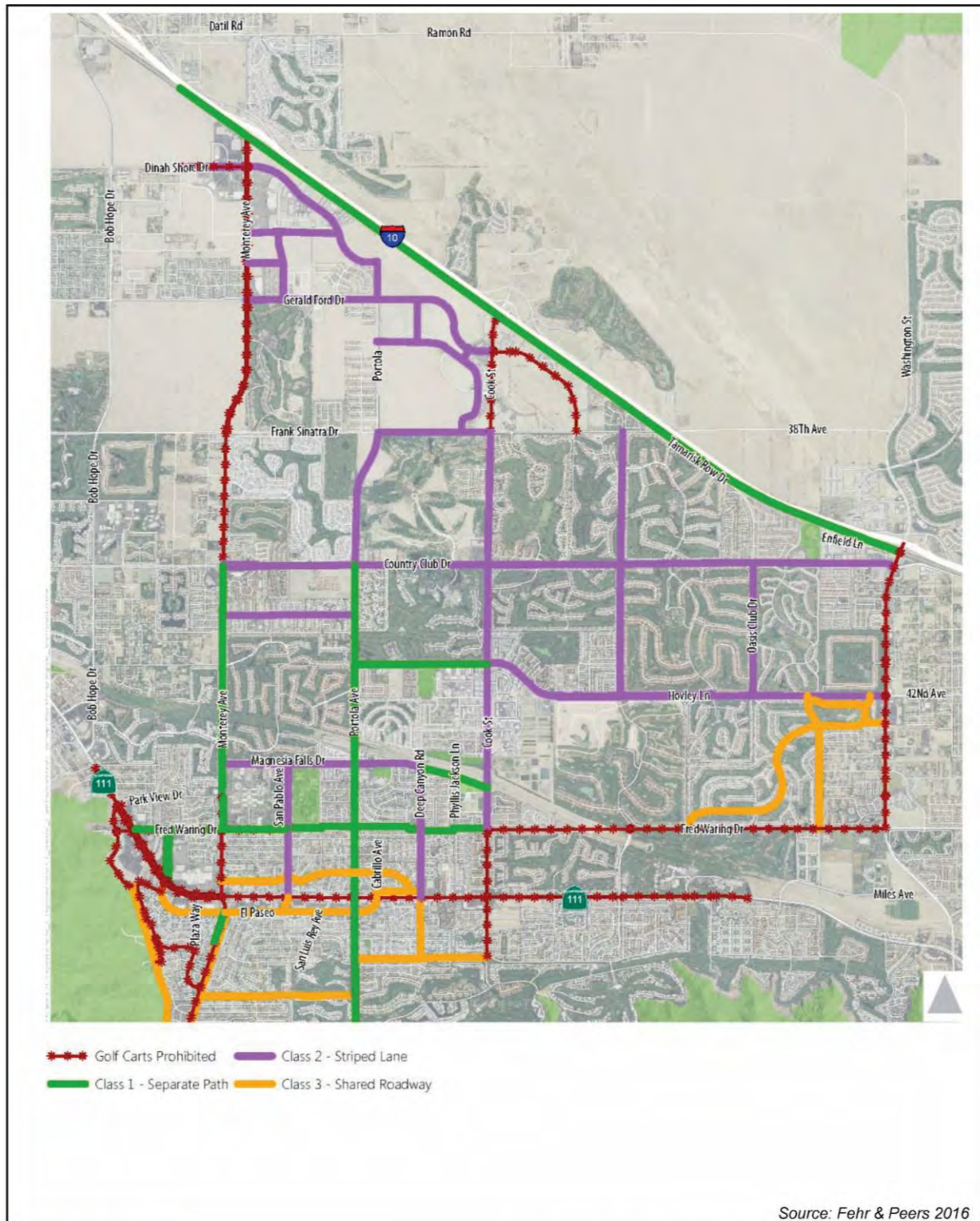
A general evaluation of the pedestrian environment in Palm Desert is included in **Table 4.15-4**. Existing sidewalk coverage is shown on **Figure 4.15-3**.

Table 4.15-4 Existing Pedestrian Facilities

Criteria	Evaluation
Sidewalk Continuity	Some major roadways in Palm Desert either have discontinuous sidewalks or only provide sidewalks on one side of the roadway. Many residential streets also either suffer from discontinuous sidewalks or do not have any sidewalks at all.
Sidewalk Conditions	Throughout Palm Desert, sidewalks are generally in good condition, free of cracks, fissures, or uplift.
Shading	Palm Desert has abundant trees and landscaping along many of its roadways and pedestrian walkways that provide an attractive streetscape. However, trees along most pedestrian walkways offer little to no shade because of their small canopies.
Grade	Streets are generally flat with no grade. However sidewalks along some roadways have slight slopes.
Amenities Offered	El Paseo and the surrounding area offer amenities such as places to sit, shopping, dining, attractive median landscaping, and public art. Throughout the city, attractive landscaping lines roadway medians and pedestrian walkways and buffers.
Buffers	Buffered space is common throughout the city via landscaping, curbside parking, and bicycle and golf cart lanes. However, many locations lack buffered space and could also benefit from wider sidewalks.

Source: Fehr & Peers 2016

Figure 4.15-2 Existing Bicycle and Golf Cart Network



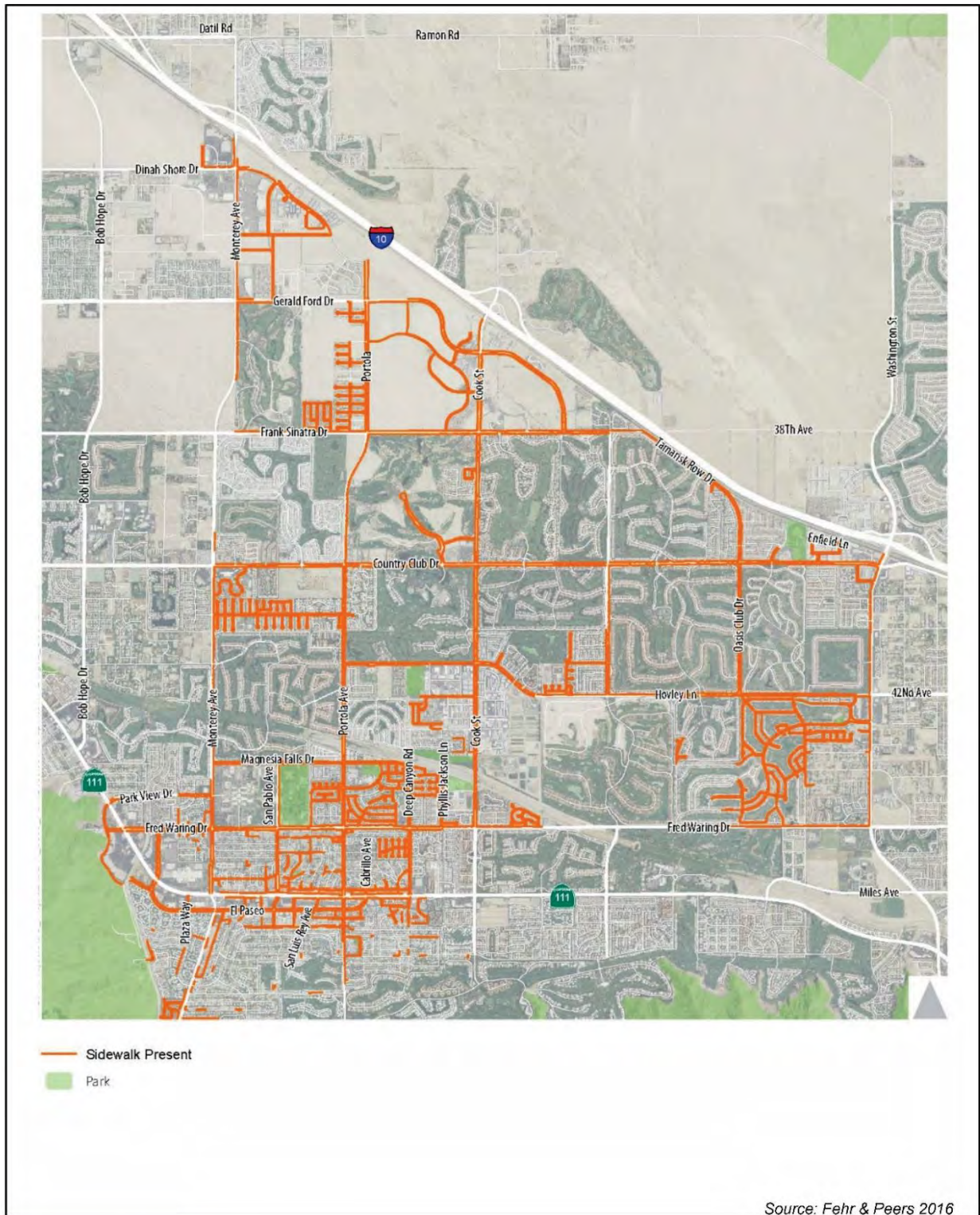
Michael Baker
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Source: Fehr & Peers 2016

City of Palm Desert • SCH#2015081020 Environmental Impact Report
EXISTING BICYCLE AND GOLF CART NETWORK

Figure 4.15-3 Existing Sidewalk Coverage



Michael Baker
INTERNATIONAL

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Source: Fehr & Peers 2016

City of Palm Desert • SCH#2015081020 Environmental Impact Report
EXISTING SIDEWALK COVERAGE

Level of Service

The performance of a roadway system is measured in terms of level of service (LOS), a standardized methodology describing the efficiency of a roadway circulation system in relation to the quality of traffic operations and flow. Level of service is ranked by letter grade that represents the overall condition of the roadway. These grades range from LOS A (minimal delay) to LOS F (excessive congestion). LOS E represents at-capacity operations. Level of service definitions for intersections are shown in **Table 4.15-5**.

Table 4.15-5 Level of Service Definitions

LOS	Definition
A	Operations with very low delay occurring with favorable progression and/or short cycle length.
B	Operations with low delay occurring with good progression and/or short cycle lengths.
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.
F	Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.

Source: Transportation Research Board 2010

As part of the traffic study prepared for the General Plan update, 39 intersections, 40 street segments, and four freeway mainline segments were selected for study in consultation with City staff. The intersection study locations are shown in **Figure 4.15-4**. Studied intersections, intersection control type, and responsible agencies for each study location are shown in **Table 4.15-6**. Studied street segments and their number of lanes and Mobility Element functional classification are shown in **Table 4.15-7**.

Table 4.15-6 Study Intersections

Intersection	Intersection Control	Jurisdiction
3. Cook St. & Hovley Ln. East	Signal	Palm Desert
7. Portola Ave. & Hovley Ln. East	Signal	Palm Desert
10. Cook St. & Country Club Dr.	Signal	Palm Desert
15. Washington St. & Country Club Dr.	Signal	Palm Desert
21. Portola Ave. & Country Club Dr.	Signal	Palm Desert
24. Eldorado Dr. & Country Club Dr.	Signal	Palm Desert
31. Oasis Club Dr./Tamarisk Row Dr. & Country Club Dr.	Signal	Palm Desert
36. Monterey Ave. & Dinah Shore Dr.	Signal	Palm Desert/CMP

Table 4.15-6, continued

Intersection	Intersection Control	Jurisdiction
48. Washington St. & Hovley Ln. East/42nd Ave.	Signal	Palm Desert
58. Monterey Ave. & Gerald Ford Dr.	Signal	Palm Desert/CMP
60. Portola Ave. & Magnesia Falls Dr.	Signal	Palm Desert
69. Portola Ave. & Gerald Ford Dr.	Signal	Palm Desert
71. Portola Ave. & Frank Sinatra Dr.	Signal	Palm Desert
75. Monterey Ave.& Frank Sinatra Dr.	Signal	Palm Desert/CMP
79. Cook St. & Gerald Ford Dr.	Signal	Palm Desert
104. San Pablo Ave. & Fred Waring Dr.	Signal	Palm Desert
106. Portola Ave. & Fred Waring Dr.	Signal	Palm Desert
107. Deep Canyon Rd. & Fred Waring Dr.	Signal	Palm Desert
108. Fred Waring Dr. & Phyllis Jackson Ln.	Signal	Palm Desert
109. Cook St. & Fred Waring Dr.	Signal	Palm Desert
122. Washington St. & Fred Waring Dr.	Signal	Palm Desert
128. Hwy. 74 & El Paseo	Signal	Palm Desert/CMP
169. Monterey Ave. & Country Club Dr.	Signal	Palm Desert/CMP
173. Cook St. & Frank Sinatra Dr.	Signal	Palm Desert
201. Painters Path/Park View Dr. & Hwy. 111	Signal	Palm Desert/CMP
202. Hwy. 111 & Fred Waring Dr.	Signal	Palm Desert/CMP
203. Hwy. 111 & Desert Crossing	Signal	Palm Desert/CMP
204. El Paseo/Town Center Way & Hwy. 111	Signal	Palm Desert/CMP
205. Plaza Way & Hwy. 111	Signal	Palm Desert/CMP
206. Hwy. 74/Monterey Ave. & Hwy. 111	Signal	Palm Desert/CMP
207. San Pablo Ave. & Hwy. 111	Signal	Palm Desert/CMP
208. San Luis Rey Ave. & Hwy. 111	Signal	Palm Desert/CMP
209. Portola Ave. & Hwy. 111	Signal	Palm Desert/CMP
210. El Paseo/Cabrillo Rd. & Hwy. 111	Signal	Palm Desert/CMP
211. Deep Canyon Rd. & Hwy. 111	Signal	Palm Desert/CMP
213. Portola Ave. & El Paseo	Signal	Palm Desert
215. Hovley Ln. East & Oasis Club Dr.	Signal	Palm Desert
282. Monterey Ave. & I-10 EB Off-Ramp	Signal	Palm Desert/CMP /Caltrans
1220. Monterey Ave. & Fred Waring Dr.	Signal	Palm Desert/CMP

Source: Fehr & Peers 2016

Note: Intersection numbers are designated by the City of Palm Desert.

Table 4.15-7 Study Roadway Segments

Segment	Location	HCM 2010 Functional Classification	Lanes
Hwy. 111	East of Bob Hope Dr.	Major Arterial	6
Hwy. 111	East of Fred Waring Dr.	Major Arterial	6
Hwy. 111	West of Monterey Ave.	Major Arterial	6
Hwy. 111	East of San Pablo Ave.	Major Arterial	6
Hwy. 111	West of Cook St.	Major Arterial	6
Hwy. 111	West of Washington St.	Major Arterial	6
Monterey Ave.	North of Dinah Shore Dr.	Major Arterial	6
Monterey Ave.	North of Gerald Ford Dr.	Major Arterial	6
Monterey Ave.	North of Country Club Dr.	Major Arterial	6
Monterey Ave.	North of Fred Waring Dr.	Major Arterial	6
Portola Ave.	South of Hwy. 111	Major Arterial	4
Portola Ave.	North of Fred Waring Dr.	Major Arterial	4
Portola Ave.	North of Country Club Dr.	Major Arterial	4
Portola Ave.	North of Frank Sinatra Dr.	Major Arterial	5
Cook St.	North of Fred Waring Dr.	Major Arterial	4
Cook St.	North of Country Club Dr.	Major Arterial	4
Cook St.	North of Frank Sinatra Dr.	Major Arterial	6
Cook St.	North of Gerald Ford Dr.	Major Arterial	6
Washington St.	North of Hwy. 111	Major Arterial	6
Washington St.	North of Fred Waring Dr.	Major Arterial	6
Washington St.	North of Hovley Ln.	Major Arterial	6
Washington St.	North of Country Club Dr.	Major Arterial	6
Fred Waring Dr.	East of Hwy. 111	Major Arterial	4
Fred Waring Dr.	East of Monterey Ave.	Major Arterial	6
Fred Waring Dr.	West of Cook St.	Major Arterial	6
Fred Waring Dr.	West of Washington St.	Major Arterial	6
Country Club Dr.	West of Monterey Ave.	Major Arterial	5
Country Club Dr.	West of Portola Ave.	Major Arterial	4
Country Club Dr.	West of Washington St.	Major Arterial	4
Frank Sinatra Dr.	West of Monterey Ave.	Major Arterial	4
Frank Sinatra Dr.	West of Portola Ave.	Major Arterial	4
Frank Sinatra Dr.	West of Cook St.	Major Arterial	4
Gerald Ford Dr.	West of Monterey Ave.	Major Arterial	4
Gerald Ford Dr.	East of Cook St.	Major Arterial	3
Dinah Shore Dr.	West of Monterey Ave.	Major Arterial	4

Table 4.15-7, continued

Segment	Location	HCM 2010 Functional Classification	Lanes
Varner Rd.	East of Monterey Ave.	Major Arterial	4
Varner Rd.	East of Cook St.	Major Arterial	3
Varner Rd.	East of Washington St.	Major Arterial	5
El Paseo	East of Hwy. 74	Minor Arterial	4
Hwy. 74	West of Mesa View Dr.	Major Arterial	4

Source: Fehr & Peers 2016

Figure 4.15-4 Study Intersections



Transportation facilities in Palm Desert are analyzed below. Additionally, guidelines published by the California Department of Transportation (Caltrans), Riverside County’s Congestion Management Program, and adjacent jurisdictions (City of Rancho Mirage, City of Indian Wells, City of La Quinta, and County of Riverside) were also used to analyze the operation of transportation facilities under existing (2014) traffic conditions as detailed below.¹

City of Palm Desert

The existing City of Palm Desert General Plan Circulation Element (2004) states that the desired and optimal level of service for intersections and roadway segments is LOS C; however, LOS D is considered the generally acceptable service level. In the current Mobility Element, Policy 1.3 states that the City of Palm Desert will “determine appropriate service levels for all modes of transportation and develop guidelines to evaluate impacts to these modes for all related public and private projects.” Mobility Element Policy 1.3 directs the City to develop appropriate service levels for all modes of transportation and develop guidelines to evaluate impacts to these modes for all projects. This move away from a formal level of service is consistent with a region and statewide emphasis on complete streets, alternative transportation and an encouragement to reduce vehicle miles travelled. The guidelines will be developed over the next several years and will reflect SB 743 that is currently undergoing rule development by the state, as well as regional transportation strategies consistent with SCAG. As shown in **Table 4.4-15**, many of the existing roadways are currently operating at Level of Service D. As the new guidelines envisioned by Mobility Policy 1.3 are not yet developed, this EIR will consider LOS D as the minimum acceptable level of service for intersections and roadway segments in Palm Desert. LOS is calculated using the Highway Capacity Manual (HCM) 2010 methodology. The HCM 2010 method determines the average control delay (in seconds per vehicle) and determines intersection level of service based on the average intersection delay for all vehicles. **Table 4.15-8** shows the intersection level of service thresholds for the HCM methodology.

Table 4.15-8 Signalized Intersection Level of Service Thresholds

Level of Service	Control Delay in Seconds (HCM Signalized)
A	0.0 to 10.0
B	10.1 to 20.0
C	20.1 to 35.0
D	35.1 to 55.0
E	55.1 to 80.0
F	80.1 or greater

Source: Transportation Research Board 2010

¹CEQA specifies that existing condition are those physical condition that exist in the area affected by the project at the time the EIR process begins. (See State CEQA Guidelines Section 15125(a).) Here, the Notice of Preparation for the General Plan was issued in August 2015; however, there is no anticipated difference in baseline traffic conditions between 2014 and August 2015, given that no major developments or infrastructure projects were constructed during this time, and no other major change in circumstances occurred to substantially alter traffic conditions.

For the analysis of roadway segments, level of service is determined based on a volume-to-capacity (V/C) ratio calculated using each roadway segment's HCM 2010 daily capacity (**Table 4.15-9** and **Table 4.15-10**) and applies LOS thresholds that are consistent with the criteria for signalized intersections in Palm Desert.

Table 4.15-9 Roadway Segment Level of Service Thresholds

Level of Service	V/C Ratio
A	0.00–0.60
B	0.61–0.70
C	0.71–0.80
D	0.81–0.90
E	0.91–1.00
F	Greater than 1.00

Table 4.15-10 HCM 2010 Roadway Segment Functional Class and Daily LOS Thresholds

Functional Class	LOS C	LOS D	LOS E
Minor Arterial (4 lanes)	10,100	28,200	34,100
Major Arterial (2 lanes)	9,300	16,800	17,900
Major Arterial (3 lanes)	14,300	25,150	26,000
Major Arterial (4 lanes)	19,300	33,500	34,100
Major Arterial (5 lanes)	24,000	41,050	41,500
Major Arterial (6 lanes)	28,700	48,600	48,900
Major Arterial (7 lanes)	33,400	56,150	56,300

Source: Highway Capacity Manual 2010

California Department of Transportation

The California Department of Transportation (Caltrans) developed the *Guide for the Preparation of Traffic Impact Studies* (December 2002) to provide standards and guidelines for the analysis of traffic impacts generated by local development and land use change proposals that affect traffic along state highway facilities. Level of service standards for intersections under the jurisdiction of Caltrans require State-controlled intersections to be under the target threshold between LOS C and LOS D (or, LOS C is considered acceptable) as measured using the HCM 2010 intersection methodology. The following intersection is under Caltrans jurisdiction:

- Monterey Avenue & I-10 Eastbound (EB) Off-Ramp

Additionally, the following freeway segments along the northern city boundary were analyzed:

- I-10 eastbound between Monterey Avenue and Cook Street
- I-10 eastbound between Cook Street and Washington Street
- I-10 westbound between Washington Street and Cook Street
- I-10 westbound between Cook Street and Monterey Avenue

The level of service for freeway segments is based on V/C ratios, density (passenger cars per mile per lane), speeds, and service flow rate (passenger cars per hour per lane) based on the HCM 2010 methodology, as shown in **Table 4.15-11**. The minimum acceptable level of service is LOS C.

Table 4.15-11 Basic Freeway Segment Level of Service Thresholds

Level of Service	Maximum V/C	Maximum Density (pc/mi/ln)	Minimum Speed (mph)	Maximum Service Flow Rate (pc/hr/ln)
A	0.30	11	65.0	710
B	0.50	18	65.0	1,170
C	0.71	26	64.0	1,630
D	0.89	35	58.8	2,030
E	1.00	45	52.2	2,350

Source: Highway Capacity Manual 2010

Congestion Management Program

The Riverside County Congestion Management Program (CMP) is a State-mandated program administered by the Riverside County Transportation Commission (RCTC) that provides a mechanism for coordinating regional land use and development decisions in conjunction with the California Environmental Quality Act (CEQA). CMP facilities in Palm Desert consist of Highway 111, Highway 74, and Monterey Avenue. However, Highway 111 is exempt from CMP analysis because of its existing level of service at the time of the 2011 CMP analysis which was below the target LOS E threshold.

Intersections are analyzed using the HCM 2010 methodology and require a minimum level of service of LOS E. Additionally, a saturation flow rate of 1,850 vehicles per hour is used for CMP intersection analysis. The following study intersections were included in the CMP analysis:

- Highway 74 & El Paseo
- Monterey Avenue & Country Club Drive
- Monterey Avenue & Dinah Shore Drive
- Monterey Avenue & Fred Waring Drive
- Monterey Avenue & Frank Sinatra Drive
- Monterey Avenue & Gerald Ford Drive
- Monterey Avenue & I-10 Eastbound Off-Ramp

CMP roadway segments are analyzed using HCM 2010 V/C thresholds and require a minimum level of service of LOS E. HCM 2010 daily capacities for select roadway classes are shown in **Table 4.15-10**.

City of Rancho Mirage

The following study roadway segments are located in Rancho Mirage:

- Gerald Ford Drive (west of Monterey Avenue)
- Frank Sinatra Drive (west of Monterey Avenue)
- Country Club Drive (west of Monterey Avenue)
- Highway 111 (east of Bob Hope Drive)

The City of Rancho Mirage General Plan Circulation Element (2005) states that the minimum acceptable level of service for Rancho Mirage facilities is LOS D using HCM 2010 roadway capacities.

City of Indian Wells

The following study roadway segment is located in Indian Wells:

- Washington Street (north of Highway 111)

The City of Indian Wells General Plan Circulation Element (2013) states that the minimum acceptable level of service for Indian Wells facilities is LOS E. **Table 4.15-12** lists select capacities for roadways in Indian Wells.

Table 4.15-12 Indian Wells Daily Roadway Capacity Values

Facility Type	Number of Lanes	Median Treatment	Capacity
Major Arterial	6	Divided or Turn Pockets	59,000
Primary Arterial	4	Divided or Turn Pockets	38,000
Secondary Arterial	4	Undivided	30,000
Collector (Divided)	2	Divided or Turn Pockets	18,000
Collector (Undivided)	2	Undivided	13,000

Source: Indian Wells 2013

City of La Quinta

The following study roadway segments are located in La Quinta:

- Washington Street (north of Highway 111)
- Highway 111 (west of Washington Street)

The City of La Quinta General Plan Circulation Element Update Traffic Impact Analysis (2012) states that the minimum acceptable level of service for La Quinta facilities is LOS D. **Table 4.15-13** lists capacities for roadways in La Quinta.

Table 4.15-13 La Quinta Daily Roadway Capacity Values

Classification	Lane Configuration	Capacity (ADT)
Local	2U	9,000
Collector	2U	14,000
Modified Secondary	2D	19,000
Secondary	4U	28,000
Primary	4D	41,400
Major	6D	59,300
Augmented Major	8D	76,000

Source: La Quinta 2012

Note: "U" denotes an undivided roadway and "D" denotes a divided roadway.

County of Riverside

The following study roadway segments are located in unincorporated Riverside County:

- Varner Road (east of Monterey Avenue)
- Varner Road (east of Cook Street)

- Varner Road (east of Washington Street)

The Riverside County General Plan Circulation Element (2015) states that the minimum acceptable level of service for roadway segments located in the Western Coachella Valley Area Plan is LOS D using HCM 2010 roadway capacities.

Existing (2014) Level of Service Results

The existing peak-hour traffic volumes shown in **Appendix 4.15-1** were analyzed using the analysis methodologies described above to determine the existing operating conditions at the selected intersections for analysis under existing conditions. Level of service calculation worksheets are included in **Appendix 4.15-2**. Of the 39 intersections, 38 operate acceptably at LOS D or better under existing (2014) peak-hour traffic conditions (shown in **Table 4.15-14** and **Figure 4.15-5**). Only one intersection currently operates unacceptably at LOS E: Portola Avenue & Magnesia Falls Drive (AM peak hour). Additionally, the single study intersection under Caltrans jurisdiction (Monterey Avenue & I-10 EB Off-Ramp) operates unacceptably at LOS D in the PM peak hour, below the Caltrans acceptable threshold of LOS C.

Table 4.15-14 Existing (2014) Intersection Level of Service: Palm Desert

Intersection	Intersection Control	Peak Hour	Delay (sec)	LOS
3. Cook St. & Hovley Ln. East	Signal	AM	27.8	C
		PM	26.9	C
7. Portola Ave. & Hovley Ln. East	Signal	AM	19.5	B
		PM	18.0	B
10. Cook St. & Country Club Dr.	Signal	AM	36.6	D
		PM	35.7	D
15. Washington St. & Country Club Dr.	Signal	AM	43.8	D
		PM	40.0	D
21. Portola Ave. & Country Club Dr.	Signal	AM	41.5	D
		PM	37.3	D
24. Eldorado Dr. & Country Club Dr.	Signal	AM	13.1	B
		PM	27.5	C
31. Oasis Club Dr./Tamarisk Row Dr. & Country Club Dr.	Signal	AM	19.8	B
		PM	24.6	C
36. Monterey Ave. & Dinah Shore Dr.	Signal	AM	35.4	D
		PM	44.7	D
48. Washington St. & Hovley Ln. East/42nd Ave.	Signal	AM	40.7	D
		PM	44.4	D
58. Monterey Ave. & Gerald Ford Dr.	Signal	AM	28.8	C
		PM	27.9	C
60. Portola Ave. & Magnesia Falls Dr.	Signal	AM	64.9	E
		PM	45.5	D
69. Portola Ave. & Gerald Ford Dr.	Signal	AM	18.0	B
		PM	18.3	B

Table 4.15-14, continued

Intersection	Intersection Control	Peak Hour	Delay (sec)	LOS
71. Portola Ave. & Frank Sinatra Dr.	Signal	AM	35.2	D
		PM	27.9	C
75. Monterey Ave. & Frank Sinatra Dr.	Signal	AM	25.9	C
		PM	22.6	C
79. Cook St. & Gerald Ford Dr.	Signal	AM	28.9	C
		PM	31.9	C
104. San Pablo Ave. & Fred Waring Dr.	Signal	AM	15.9	B
		PM	26.7	C
106. Portola Ave. & Fred Waring Dr.	Signal	AM	25.8	C
		PM	32.3	C
107. Deep Canyon Rd. & Fred Waring Dr.	Signal	AM	33.0	C
		PM	28.6	C
108. Fred Waring Dr. & Phyllis Jackson Ln.*	Signal	AM	12.6	B
		PM	2.3	A
109. Cook St. & Fred Waring Dr.	Signal	AM	36.3	D
		PM	39.4	D
122. Washington St. & Fred Waring Dr.	Signal	AM	40.9	D
		PM	38.9	D
128. Hwy. 74 & El Paseo	Signal	AM	6.3	A
		PM	16.2	B
169. Monterey Ave. & Country Club Dr.	Signal	AM	42.2	D
		PM	39.0	D
173. Cook St. & Frank Sinatra Dr.	Signal	AM	22.9	C
		PM	22.8	C
201. Painters Path/Park View Dr. & Hwy. 111	Signal	AM	7.4	A
		PM	8.4	A
202. Hwy. 111 & Fred Waring Dr.	Signal	AM	27.5	C
		PM	28.3	D
203. Hwy. 111 & Desert Crossing	Signal	AM	16.8	B
		PM	11.6	B
204. El Paseo/Town Center Way & Hwy. 111	Signal	AM	46.5	D
		PM	17.7	B
205. Plaza Way & Hwy. 111	Signal	AM	11.6	B
		PM	13.1	B
206. Hwy. 74/Monterey Ave. & Hwy. 111	Signal	AM	28.4	C
		PM	35.6	D
207. San Pablo Ave. & Hwy. 111	Signal	AM	12.3	B
		PM	26.7	C
208. San Luis Rey Ave. & Hwy. 111	Signal	AM	14.2	B
		PM	6.8	A
209. Portola Ave. & Hwy. 111	Signal	AM	36.4	D
		PM	20.0	B
210. El Paseo/Cabrillo Rd. & Hwy. 111	Signal	AM	7.7	A
		PM	6.1	A

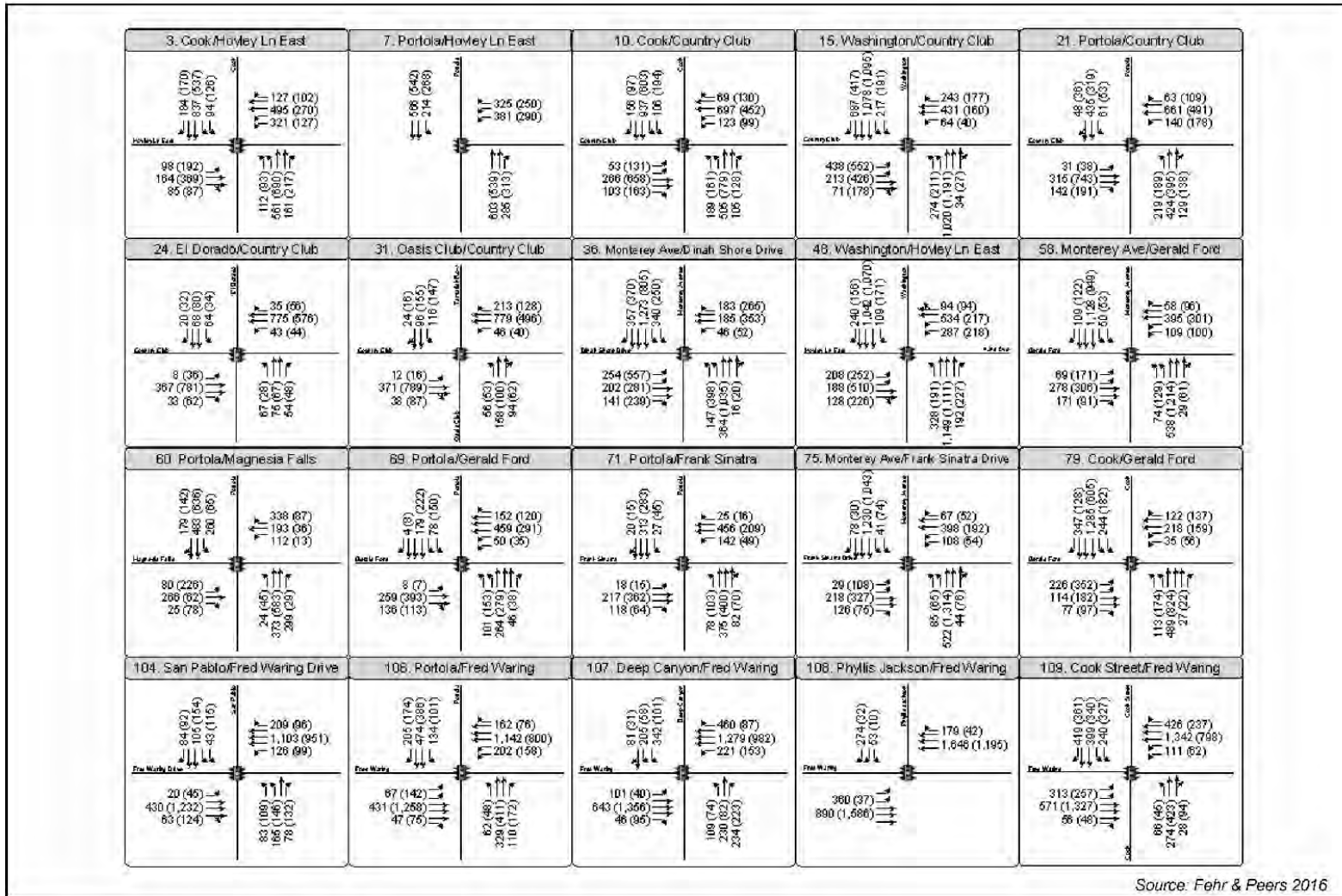
Table 4.15-14, continued

Intersection	Intersection Control	Peak Hour	Delay (sec)	LOS
211. Deep Canyon Rd. & Hwy. 111	Signal	AM	19.6	B
		PM	19.5	B
213. Portola Ave. & El Paseo	Signal	AM	15.8	B
		PM	19.1	B
215. Hovley Ln. East & Oasis Club Dr.	Signal	AM	49.2	D
		PM	27.8	C
282. Monterey Ave. & I-10 EB Off-Ramp	Signal	AM	37.5	D
		PM	18.6	B
1220. Monterey Ave. & Fred Waring Dr.	Signal	AM	36.4	D
		PM	36.7	D

Source: Fehr & Peers 2016

* This intersection was analyzed using HCM 2000 methodologies due to its unique signal phasing.

Figure 4.15-5 Existing (2014) Intersection Geometries and Peak-Hour Volumes



Source: Fehr & Peers 2016



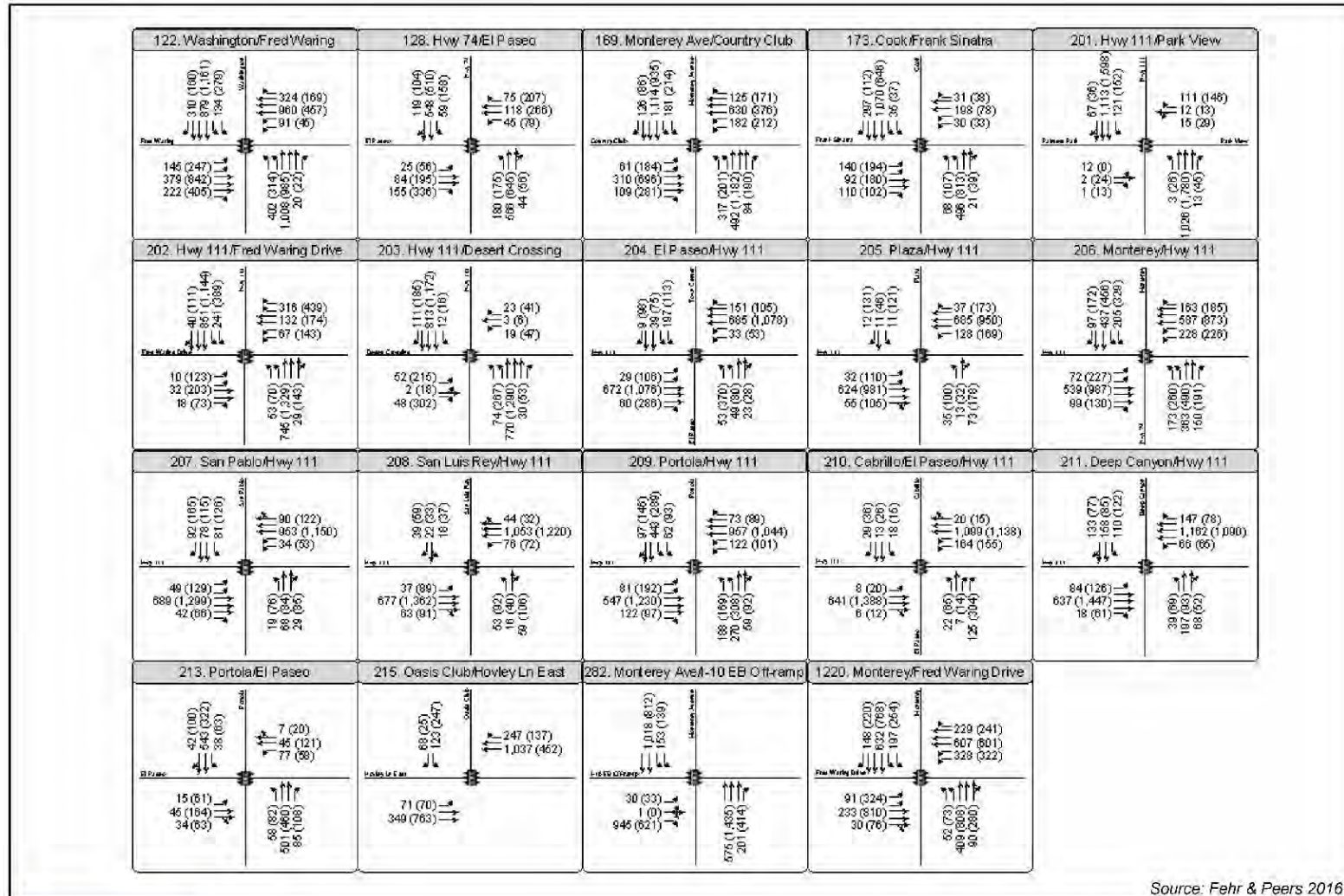
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Source: Fehr & Peers 2016

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EXISTING (2014) INTERSECTION GEOMETRIES AND PEAK HOUR VOLUMES

Figure 4.15-5 Existing (2014) Intersection Geometries and Peak-Hour Volumes (continued)



Source: Fehr & Peers 2016



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EXISTING (2014) INTERSECTION GEOMETRIES AND PEAK HOUR VOLUMES

Source: Fehr & Peers 2016

Level of service results for CMP intersections (using the saturation flow rate designated by the CMP) are shown in **Table 4.15-15**. Level of service calculation worksheets are included in **Appendix 4.15-3**. Of the 7 intersections, all operate acceptably at LOS E or better under existing (2014) peak-hour traffic conditions.

Table 4.15-15 Existing (2014) Intersection Level of Service: CMP Intersections

Intersection	Intersection Control	Peak Hour	Delay (sec)	LOS
36. Monterey Ave. & Dinah Shore Dr.	Signal	AM	35.8	D
		PM	45.6	D
58. Monterey Ave. & Gerald Ford Dr.	Signal	AM	29.1	C
		PM	28.2	C
75. Monterey Ave. & Frank Sinatra Dr.	Signal	AM	26.1	C
		PM	22.9	C
128. Hwy. 74 & El Paseo	Signal	AM	6.3	A
		PM	16.3	B
169. Monterey Ave. & Country Club Dr.	Signal	AM	42.9	D
		PM	39.5	D
282. Monterey Ave. & I-10 EB Off-Ramp	Signal	AM	40.1	D
		PM	18.9	B
1220. Monterey Ave. & Fred Waring Dr.	Signal	AM	36.6	D
		PM	37.4	D

Source: Fehr & Peers 2016

Palm Desert level of service results for roadways are shown in **Table 4.15-16**. Of the 40 selected roadway segments, none currently operate below the acceptable LOS D.

Table 4.15-16 Existing (2014) Roadway Segment Level of Service: Palm Desert

Street Segment	Location	HCM 2010 Facility Type	Volume	LOS
Hwy. 111	East of Bob Hope Dr.	Major Arterial (6)	36,603	D
Hwy. 111	East of Fred Waring Dr.	Major Arterial (6)	47,145	D
Hwy. 111	West of Monterey Ave.	Major Arterial (6)	33,728	D
Hwy. 111	East of San Pablo Ave.	Major Arterial (6)	38,682	D
Hwy. 111	West of Cook St.	Major Arterial (6)	38,829	D
Hwy. 111	West of Washington St.	Major Arterial (6)	29,525	D
Monterey Ave.	North of Dinah Shore Dr.	Major Arterial (6)	44,703	D
Monterey Ave.	North of Gerald Ford Dr.	Major Arterial (6)	34,536	D

Table 4.15-16, continued

Street Segment	Location	HCM 2010 Facility Type	Volume	LOS
Monterey Ave.	North of Country Club Dr.	Major Arterial (6)	36,557	D
Monterey Ave.	North of Fred Waring Dr.	Major Arterial (6)	36,169	D
Portola Ave.	South of Hwy. 111	Major Arterial (4)	14,767	C or Better
Portola Ave.	North of Fred Waring Dr.	Major Arterial (4)	17,673	C or Better
Portola Ave.	North of Country Club Dr.	Major Arterial (4)	12,180	C or Better
Portola Ave.	North of Frank Sinatra Dr.	Major Arterial (5)	9,583	C or Better
Cook St.	North of Fred Waring Dr.	Major Arterial (4)	24,310	D
Cook St.	North of Country Club Dr.	Major Arterial (4)	21,530	D
Cook St.	North of Frank Sinatra Dr.	Major Arterial (6)	22,978	C or Better
Cook St.	North of Gerald Ford Dr.	Major Arterial (6)	27,945	C or Better
Washington St.	North of Hwy. 111	Major Arterial (6)	31,310	D
Washington St.	North of Fred Waring Dr.	Major Arterial (6)	40,131	D
Washington St.	North of Hovley Ln.	Major Arterial (6)	36,817	D
Washington St.	North of Country Club Dr.	Major Arterial (6)	47,225	D
Fred Waring Dr.	East of Hwy. 111	Major Arterial (4)	19,166	C or Better
Fred Waring Dr.	East of Monterey Ave.	Major Arterial (6)	32,066	D
Fred Waring Dr.	West of Cook St.	Major Arterial (6)	36,069	D
Fred Waring Dr.	West of Washington St.	Major Arterial (6)	29,890	D
Country Club Dr.	West of Monterey Ave.	Major Arterial (5)	22,908	C or Better
Country Club Dr.	West of Portola Ave.	Major Arterial (4)	21,140	D
Country Club Dr.	West of Washington St.	Major Arterial (4)	26,562	D
Frank Sinatra Dr.	West of Monterey Ave.	Major Arterial (4)	10,412	C or Better
Frank Sinatra Dr.	West of Portola Ave.	Major Arterial (4)	9,662	C or Better
Frank Sinatra Dr.	West of Cook St.	Major Arterial (4)	9,825	C or Better

Table 4.15-16, continued

Street Segment	Location	HCM 2010 Facility Type	Volume	LOS
Gerald Ford Dr.	West of Monterey Ave.	Major Arterial (4)	13,794	C or Better
Gerald Ford Dr.	East of Cook St.	Major Arterial (3)	8,042	C or Better
Dinah Shore Dr.	West of Monterey Ave.	Major Arterial (4)	28,471	D
Varner Rd.	East of Monterey Ave.	Major Arterial (4)	7,607	C or Better
Varner Rd.	East of Cook St.	Major Arterial (3)	4,498	C or Better
Varner Rd.	East of Washington St.	Major Arterial (5)	30,200	D
El Paseo.	East of Hwy. 74	Minor Arterial (4)	12,848	D
Hwy. 74	North of Mesa View Dr.	Major Arterial (4)	12,563	C or Better

Source: Fehr & Peers 2016

Level of service results for CMP roadway segments (using HCM 2010 capacity) are shown in **Table 4.15-17**. Of the five segments, all operate acceptably at LOS E or better under existing (2014) conditions.

Table 4.15-17 Existing (2014) Roadway Segment Level of Service: CMP

Street Segment	Location	HCM 2010 Facility Type	Volume	LOS
Monterey Ave.	North of Dinah Shore Dr.	Major Arterial (6)	44,703	D
Monterey Ave.	North of Gerald Ford Dr.	Major Arterial (6)	34,536	D
Monterey Ave.	North of Country Club Dr.	Major Arterial (6)	36,557	D
Monterey Ave.	North of Fred Waring Dr.	Major Arterial (6)	36,169	D
Hwy. 74	North of Mesa View Dr.	Major Arterial (4)	12,563	C or Better

Source: Fehr & Peers 2016

Level of service results for study roadway segments in Rancho Mirage are shown in **Table 4.15-18**. Of all four segments, all operate at or above the acceptable LOS D under existing (2014) conditions.

Table 4.15-18 Existing (2014) Roadway Segment Level of Service: Rancho Mirage

Street Segment	Location	HCM 2010 Facility Type	Volume	LOS
Gerald Ford Dr.	West of Monterey Ave.	Major Arterial (4)	13,794	D
Frank Sinatra Dr.	West of Monterey Ave.	Major Arterial (4)	10,412	C or Better
Country Club Dr.	West of Monterey Ave.	Major Arterial (5)	22,908	C or Better
Hwy. 111	East of Bob Hope Dr.	Major Arterial (6)	36,603	C or Better

Source: Fehr & Peers 2016

The level of service for the study roadway segment in Indian Wells is shown in **Table 4.15-19**. The segment operates at or above the acceptable LOS E under existing (2014) conditions.

Table 4.15-19 Existing (2014) Roadway Segment Level of Service: Indian Wells

Street Segment	Location	Facility Type	Volume	Capacity	V/C	LOS
Washington St.	North of Hwy. 111	Major Arterial (6)	31,310	59,000	0.53	A

Source: Fehr & Peers 2016

Level of service results for study roadway segments in La Quinta are shown in **Table 4.15-20**. Of the two segments, both operate at or above the acceptable LOS D under existing (2014) conditions.

Table 4.15-20 Existing (2014) Roadway Segment Level of Service: La Quinta

Street Segment	Location	Facility Type	Volume	Capacity	V/C	LOS
Washington St.	North of Hwy. 111	Major (6D)	31,310	59,300	0.53	A
Hwy. 111	West of Washington St.	Major (6D)	29,525	59,300	0.50	A

Source: Fehr & Peers 2016

Note: "U" denotes an undivided roadway and "D" denotes a divided roadway.

Level of service results for County study roadway segments are shown in **Table 4.15-21**. Of the three segments, all operate at or above the acceptable LOS D under existing (2014) conditions.

Table 4.15-21 Existing (2014) Roadway Segment Level of Service:
County of Riverside

Street Segment	Location	HCM 2010 Facility Type	Volume	LOS
Varner Rd.	East of Monterey Ave.	Major Arterial (4)	7,607	C or Better
Varner Rd.	East of Cook St.	Major Arterial (3)	4,498	C or Better
Varner Rd.	East of Washington St.	Major Arterial (5)	30,200	D

Source: Fehr & Peers 2016

Level of service results for Caltrans freeway segments are shown in **Table 4.15-22**. Level of service calculation worksheets are included in **Appendix 4.15-4**. Of the four segments, one operates below the acceptable LOS C under existing (2014) conditions:

- I-10 Westbound (Cook Street to Monterey Avenue) (AM peak hour and pm peak hour)

Table 4.15-22 Existing (2014) Freeway Level of Service

Segment	AM			PM		
	V/C	Density	LOS	V/C	Density	LOS
I-10 EB (Monterey Ave. to Cook St.)	0.61	21.0	C	0.47	16.0	B
I-10 EB (Cook St. to Washington St.)	0.35	12.0	B	0.41	13.9	B
I-10 WB (Washington St. to Cook St.)	0.39	13.4	B	0.39	13.4	B
I-10 WB (Cook St. to Monterey Ave.)	0.77	28.6	D	0.90	36.6	E

Source: Fehr & Peers 2016

Regulatory Setting

The regulatory framework is used to inform decision-makers about the regulatory agencies/policies that affect transportation in the city. This information enables them to make informed decisions about planning improvements to transportation systems in Palm Desert. This section includes a discussion of funding as well as regulation. Major policy documents impacting the transportation system in Palm Desert include laws at the state level and planning documents at the regional and local levels.

State

AB 1358 (Complete Streets Act)

The California Complete Streets Act of 2008 was signed into law on September 30, 2008. Beginning January 1, 2011, Assembly Bill (AB) 1358 required circulation

elements to address the transportation system from a multi-modal perspective. The bill states that streets, roads, and highways must “meet the needs of all users...in a manner suitable to the rural, suburban, or urban context of the general plan.” Essentially, this bill requires a circulation element to plan for all modes of transportation where appropriate—including walking, biking, car travel, and transit.

The Complete Streets Act also requires circulation elements to consider the multiple users of the transportation system, including children, adults, seniors, and the disabled. For further clarity, AB 1358 tasks the Governor’s Office of Planning and Research to release guidelines for compliance, which were released in December 2010.

AB 32 (Global Warming Solutions Act)

With the passage of the Global Warming Solutions Act of 2006, the State of California committed itself to reducing greenhouse gas (GHG) emissions to 1990 levels by 2020. The California Air Resource Board (CARB), which is coordinating the response to comply with AB 32, is currently on schedule to meet this deadline.

In 2007, CARB adopted a list of early action programs that could be put in place by January 1, 2010. In 2008, CARB defined its 1990 baseline level of emissions, and by 2011 it completed its major rule-making for reducing GHG emissions. Rules on emissions, as well as market-based mechanisms like the proposed cap and trade program, came into effect January 1, 2012. The cap and trade program controls pollution by a governing agency selling permits on the amount of pollutants a firm can emit. A firm’s pollutants cannot exceed the limit. Firms requiring the need to increase their emissions must purchase permits from other firms requiring fewer permits.

SB 375 (Sustainable Communities and Climate Protection Act)

On December 11, 2008, CARB adopted its Proposed Scoping Plan for AB 32. This scoping plan included the approval of Senate Bill (SB) 375 as the means for achieving regional transportation-related GHG targets. SB 375 provides guidance on how curbing emissions from cars and light trucks can help the state comply with AB 32.

There are five major components to SB 375. First, SB 375 will address regional GHG emission targets. CARB’s Regional Targets Advisory Committee will guide the adoption of targets to be met by 2020 and 2035 for each metropolitan planning organization (MPO) in the state. These targets, which MPOs may propose themselves, will be updated every 8 years in conjunction with the revision schedule of housing and transportation elements.

Second, MPOs will be required to create a Sustainable Communities Strategy (SCS) that provides a plan for meeting regional targets. The SCS and the Regional Transportation Plan (RTP) must be consistent with each other, including action items and financing decisions. If the SCS does not meet the regional target, the MPO must produce an Alternative Planning Strategy that details an alternative plan to meet the target.

Third, SB 375 requires that regional housing elements and transportation plans be synchronized on 8-year schedules. In addition, Regional Housing Needs Assessment numbers must conform to the SCS. If local jurisdictions are required to rezone land as a result of changes in the housing element, rezoning must take place within 3 years.

Fourth, SB 375 provides CEQA streamlining incentives for preferred development types. Residential or mixed-use projects qualify if they conform to the SCS. Transit-

oriented developments also qualify if they are at least 50 percent residential, meet density requirements, and are within one-half mile of a transit stop. The degree of CEQA streamlining is based on the degree of compliance with these development preferences.

Finally, MPOs must use transportation and air emission modeling techniques consistent with guidelines prepared by the California Transportation Commission (CTC). Regional transportation planning agencies, cities, and counties are encouraged, but not required, to use travel demand models consistent with the CTC guidelines.

SB 743 (General CEQA Reform)

On September 27, 2013, Governor Jerry Brown signed SB 743 into law. A key element of this law is the potential elimination or deemphasizing of auto delay, level of service, and other similar measures of vehicular capacity or traffic congestion as a basis for determining significant impacts in many parts of the state. According to the legislative intent contained in SB 743, these changes to current practice were necessary to “more appropriately balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions.”

SB 743 requires the Governor’s Office of Planning and Research (OPR) to update the CEQA Guidelines and establish “criteria for determining the significance of transportation impacts of projects within transit priority areas.” The new criteria “shall promote the reduction of greenhouse gas emissions, the development of multi-modal transportation networks, and a diversity of land uses.” Once the Secretary of the Natural Resources Agency certifies the new guidelines, then “automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment..., except in locations specifically identified in the guidelines, if any.” OPR is in the process of investigating alternative metrics, but a preliminary metrics evaluation suggested that auto delay and level of service may work against goals such as greenhouse gas reduction and accommodation of all modes. OPR released a preliminary discussion draft of changes to CEQA guidelines in August 2014. After a public engagement and outreach process, OPR released a summary of the feedback on the draft guidelines in May 2015. In January 2016, OPR released a second set of draft guidelines based on feedback from the public, public agencies, and various organizations and individuals. This second set of draft guidelines continues to recommend vehicle miles traveled (VMT) as the most appropriate measure of project transportation impacts, and currently includes a two year “opt-in” period (starting from adoption of the guidelines) during which local agencies can choose to utilize either level of service or VMT, and during which reliance on VMT is not year mandatory.

As noted, SB 743 requires impacts to transportation network performance to be viewed through a filter that promotes the reduction of greenhouse gas emissions, the development of multi-modal transportation networks, and a diversity of land uses. Some alternative metrics were identified in the law including VMT or automobile trip generation rates. SB 743 does not prevent a city or county from continuing to analyze delay or level of service as part of other plans (i.e., the general plan), studies, or ongoing network monitoring.

AB 417 (CEQA and Bicycle Transportation Plans)

Prior to AB 417, California cities and counties that prepared a bicycle transportation plan were required to conduct a CEQA review of the plan before approval. The requirement imposed high and sometimes prohibitive costs and delays, resulting in fewer improvements to bicycle safety in California.

AB 417 creates a statutory exemption from CEQA for bicycle transportation plans for an urbanized area; specifically, the bill exempts the following types of bicycle transportation plans or projects prepared pursuant to Streets and Highways Code Section 891.2 for an urbanized area if those projects have been described at a reasonably high level of detail: restriping of streets and highways, bicycle parking and storage, signal timing to improve street and highway intersection operations, and related signage for bicycles, pedestrians, and vehicles. It does not exempt all potential impacts of a bike plan, such as a new path through a natural area, for example. Prior to determining that a bicycle plan is exempt, the lead agency is required do both of the following: (1) hold properly noticed public hearings in areas affected by the bicycle transportation plan to hear and respond to public comments, and (2) include measures in the bicycle transportation plan to mitigate potential bicycle and pedestrian safety and traffic impacts.

Caltrans Guide for the Preparation of Traffic Impact Studies

The Caltrans Traffic Impact Study Guide provides a starting point and a consistent basis in which Caltrans evaluates traffic impacts to state highway facilities. The guide provides information on when a traffic impact study is needed, the scope of a traffic impact study (i.e., the boundaries of the traffic study and the analysis scenarios), the required data for a traffic impact study, analysis methodologies for various types of state facilities, and guidelines for mitigating impacts.

OPR General Plan Guidelines Update

The Governor's Office of Planning and Research prepared its General Plan Guidelines as guidance to local governments as they develop their general plans. OPR is currently in the process of developing its update of the guidelines. This update will include guidance on fiscally constrained circulation elements. Namely, a general plan's circulation element must take into consideration costs such as capital, maintenance, and labor. The update will also include guidance on how the general plan can address issues such as greenhouse gas emissions reductions and climate adaptation, renewable energy, infill development, public health, and regional planning.

Regional and Local

Riverside County Congestion Management Program

The passage of Proposition 111 in June 1990 established a process for each metropolitan county in California, including Riverside County, to prepare a Congestion Management Plan (CMP). The CMP, which was prepared by the RCTC in consultation with the County and the cities in Riverside County, is an effort to align land use, transportation, and air quality management efforts to promote reasonable growth management programs that effectively use statewide transportation funds, while ensuring that new development pays its fair share of needed transportation improvements.

The focus of the CMP is the development of an Enhanced Traffic Monitoring System in which real-time traffic count data can be accessed by RCTC to evaluate the condition of the Congestion Management System (CMS) as well as meet other monitoring

requirements at the state and federal levels. Per the adopted level of service target of LOS E, when a CMS segment falls to LOS F, a deficiency plan is required. Preparation of a deficiency plan will be the responsibility of the local agency where the deficiency is located. Other agencies identified as contributors to the deficiency will also be required to coordinate with the development of the plan. The plan must contain mitigation measures, including Transportation Demand Management (TDM) strategies and transit alternatives, and a schedule for mitigating the deficiency. To ensure that the CMS is appropriately monitored to reduce the occurrence of CMP deficiencies, it is the responsibility of local agencies, when reviewing and approving development proposals, to consider the traffic impacts on the Congestion Management System.

Coachella Valley Association of Governments, Transportation Uniform Mitigation Fee (CVAG TUMF)

In November 1988, Riverside County voters approved Measure A, a one-half-cent increase in sales tax over a 20-year period to be used for transportation purposes. A major factor contributing to the support of Measure A was the “return to source” concept, which requires the additional sales tax revenue generated in a specific geographic area be used to finance projects within that same area and that Transportation Uniform Mitigation Fees (TUMF) be adopted valley-wide on all new development. The program has been so successful that in November 2002, Riverside County voters approved a 30-year extension of Measure A (2009–2039). Despite the measure’s success, Measure A funds will only contribute a portion of the transportation improvements necessary to prevent a potential breakdown of the regional transportation system.

The TUMF program was developed to generate additional funds required for necessary improvements to the regional transportation system. TUMF is a development impact assessment that provides funding for transportation improvements required to support new development. The assessment is based on the number of vehicle trips the new development or site improvement will generate. Local jurisdictions may choose not to collect TUMF; however, jurisdictions not collecting TUMF forfeit their share of local Measure A funds to the regional arterial program. The TUMF is currently being updated.

CV Link

CV Link is a transformative multi-modal transportation facility that will provide significant environmental, health, and economic benefits to many generations of Coachella Valley residents and visitors.

CV Link will initially connect eight of the nine cities in the Coachella Valley and three Indian tribes. Bicycles, pedestrians, and low-speed electric vehicles (LSEVs) will use the corridor to access employment, shopping, schools, friends, and recreational opportunities. LSEVs include golf carts and neighborhood electric vehicles (NEVs) that can travel up to 25 miles per hour. CV Link is the largest, most ambitious project of its kind in the Southern California Association of Governments’ (SCAG) Regional Transportation Plan, California, and the nation.

CV Link will serve to facilitate a safer, more attractive, and economically thriving corridor to serve the needs of residents throughout the Coachella Valley. In addition to the safety, emissions, and health benefits, private investments along the route will facilitate the development and redevelopment of properties and drive economic prosperity.

By 2035, CV Link will facilitate over 3 million bicycle and pedestrian trips per year. CV Link will provide a safer route to school and facilitate sports for many of the over 40,000 students attending public schools located within 1 mile of the corridor—54 percent of all public school students in the valley. For every dollar invested in CV Link, the valley will realize \$11 in benefits over the next 25 years.

SCAG Regional Transportation Plan/Sustainable Communities Strategy

In April 2016, SCAG adopted the 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). The plan involves stakeholders from six counties in Southern California with a shared vision for the region’s sustainable future. The RTP/SCS is a regional transportation plan that is driven by a strong commitment toward reducing emissions from transportation sources set forth by SB 375 and meeting the national ambient air quality standards for compliance with the federal Clean Air Act. The plan focuses on the interconnected components of economic, social, and transportation investments required to improve public health and achieve a sustainable regional multi-modal transportation system.

Coachella Valley Plug-In Electric Vehicle Readiness Plan

The deployment of plug-in electric vehicles (PEVs) has the potential to reduce petroleum consumption and greenhouse gas emissions dramatically, and increase energy independence through the use of locally produced energy. However, the success of long-term transportation electrification will depend in part on the near-term deployment of charging infrastructure. As a result, CVAG has developed the Coachella Valley Plug-in Electric Vehicle Readiness Plan to help support and accelerate the mass deployment of PEVs in the region.

The plan is the result of a community outreach process and collaboration among local and regional agencies, state and federal funding agencies, members of the California Plug-in Electric Vehicle Coordinating Council, staff from the electric vehicle industry, and other stakeholder groups that are pursuing numerous avenues to support PEV deployment in the Coachella Valley. The plan highlights strategies and actions from research, analysis, and public input to help the Coachella Valley achieve the goal of being “PEV Ready”; that is, well positioned to handle large-scale adoption of PEVs over the next 10 years.

The plan includes an introduction to PEVs—with a focus on plug-in hybrid electric vehicles (PHEVs) and battery electric vehicles (BEVs)—and the associated charging infrastructure, referred to as electric vehicle supply equipment. Although there are only a modest number of PEVs on the road in the Coachella Valley today, forecasts for this plan indicate that as many as 8,000–10,000 PEVs will be on the road in 2022. This level of deployment will require as many as 2,000 electric vehicle supply equipment locations to be deployed in the Coachella Valley to support PEV owners.

The plan includes the following key recommendations, among others:

- Adopt a climate action plan, general plan update, or stand-alone plan that encourages deployment of PEVs and electric vehicle supply equipment.
- Create minimum requirements for PEV parking.
- Allow PEV parking spaces to count toward minimum parking requirements.
- Adopt regulations and enforcement policies for PEV parking spaces.

- Specify design guidelines for PEV parking spaces.
- Accelerate PEV adoption.
- Increase charging opportunities to increase electric VMT.

CVAG Transportation Project Prioritization Study

The Transportation Project Prioritization Study (TPPS) serves as an unbiased, methodological way to provide CVAG direction in determining funding for regional arterials by prioritizing the eligible study segments. The Coachella Valley Association of Governments is responsible for the distribution of sales tax (Measure A) Transportation Uniform Mitigation Fees (TUMF) and other funds to be used for transportation related projects in the Coachella Valley area. In order to better determine the prioritized need for arterial road improvement projects, CVAG has developed the TPPS. The study area includes the incorporated areas of the Coachella Valley as well as a portion of Riverside County. The cities include Cathedral City, Coachella, Desert Hot Springs, Indian Wells, Indio, La Quinta, Palm Desert, Palm Springs, and Rancho Mirage. The newest TPPS was released in May 2016.

The TPPS compares significant roadway segments for these nine municipalities and the county in the Coachella Valley area using distinct evaluation criteria and scores to form a ranking list used in deciding where funding should be directed. The criteria used to analyze the improvement needs are determined by the CVAG Transportation Technical Advisory Subcommittee. The TPPS prioritization is based on four main criteria and five bonus point criteria of roadway characteristics.

After all segments have been analyzed using criteria set forth by CVAG and the Transportation Technical Advisory Subcommittee, they can then be merged or divided into logical and feasibly constructible buildable projects. CVAG will use the results of the study as an evaluation tool to help define budgeting priority for the improving segments in this study. The higher ranked projects should be considered first for funding opportunities.

CVAG Non-Motorized Transportation Plan Update

The Coachella Valley Association of Governments recognizes the value of providing opportunities for local residents and visitors to bicycle for work and recreation, as well as to use off-road trails for hiking, equestrians, and jogging. Such opportunities help to reduce auto trips, improve the environment, promote healthy lifestyles, and create livable communities.

The Non-Motorized Transportation Plan updates a plan for bikeways and trails that was completed in 2001. It includes updates of a bicycle plan for each jurisdiction as well as revisions to plans for hiking and equestrian trails. The bicycle plans will make each city and the County of Riverside eligible for Bicycle Transportation Account funds and enhance their chances to compete for other funds. Cities and the County will also improve their chances of receiving funds for the trails on this plan.

The Non-Motorized Transportation Plan Update reiterates the goals and objectives from the 2001 Non-Motorized Transportation Plan, presents the bikeway and trails plan in both the Coachella and Palo Verde valleys, presents all of the individual bicycle master plans for each jurisdiction along with project priorities and phasing, describes eligible funding sources, lays out an implementation strategy, and includes a discussion on design issues.

Envision Palm Desert 2013–2033 Strategic Plan

The Palm Desert Strategic Plan is a vision that recognizes the critical role that Palm Desert plays in the Coachella Valley, its exceptional quality of life, commitment to sustainability, and importance as a generator of jobs and economic activity. It envisions a new energy and excitement in a year-round destination with world-class institutions and events, a vibrant city that is attractive to innovative employers because of its educational excellence, cultural richness, civic engagement, and community passion.

The plan's transportation vision is of a community with safe, convenient, and efficient transportation options for residents and visitors. Priorities are to create walkable neighborhoods in residential, retail, and open space areas to reduce the use of low-occupancy vehicles, revitalize the Highway 111 corridor through land use and other improvements, and emphasize multiple modes of travel including carpooling, bus riding, cycling, and walking.

Palm Desert Draft General Plan Update

The Palm Desert General Plan Mobility Element describes the City's goals and policies related to transportation. The transportation system, which includes the city's roadways, bus stops, bicycle lanes, sidewalks, and trails, is a key element of daily life. These transportation facilities allow daily travel for work, shopping, school, and recreational purposes. Businesses depend on the deliveries of goods to serve their customers. The ability of Palm Desert to grow depends on a robust transportation network.

The City envisions an interconnected multi-modal transportation system, offering diverse options such as automobiles, public transit, golf carts, bicycling, and walking. This interconnected transportation system is also provided within a larger framework of statutory requirements, state and regional agencies, and adjacent cities whose roadways, bike trails, and sidewalks connect to Palm Desert. The Mobility Element describes policies and approaches to provide the city with the flexibility to interact with these constraints in a way that addresses the needs of residents, employees, and visitors.

Impacts and Mitigation Measures

Analysis Scenarios

The General Plan buildout scenario assumes the following increases in the city by the year 2040:

- +7,365 households
- +11,927 residents
- +13,131 employees
- +1,060 kindergarten through grade 12 enrollment
- +12,000 college enrollment

The General Plan also proposes improvements to the vehicular, bicycle, and golf cart networks in Palm Desert, as shown on **Figure 4.15-1** and **Figure 4.15-6**. Roadway expansions include lane additions on Country Club Drive and Cook Street (south of Frank Sinatra Drive).

Draft Palm Desert General Plan Update Policies

Updated General Plan policies that reduce potential transportation impacts include:

Mobility Element

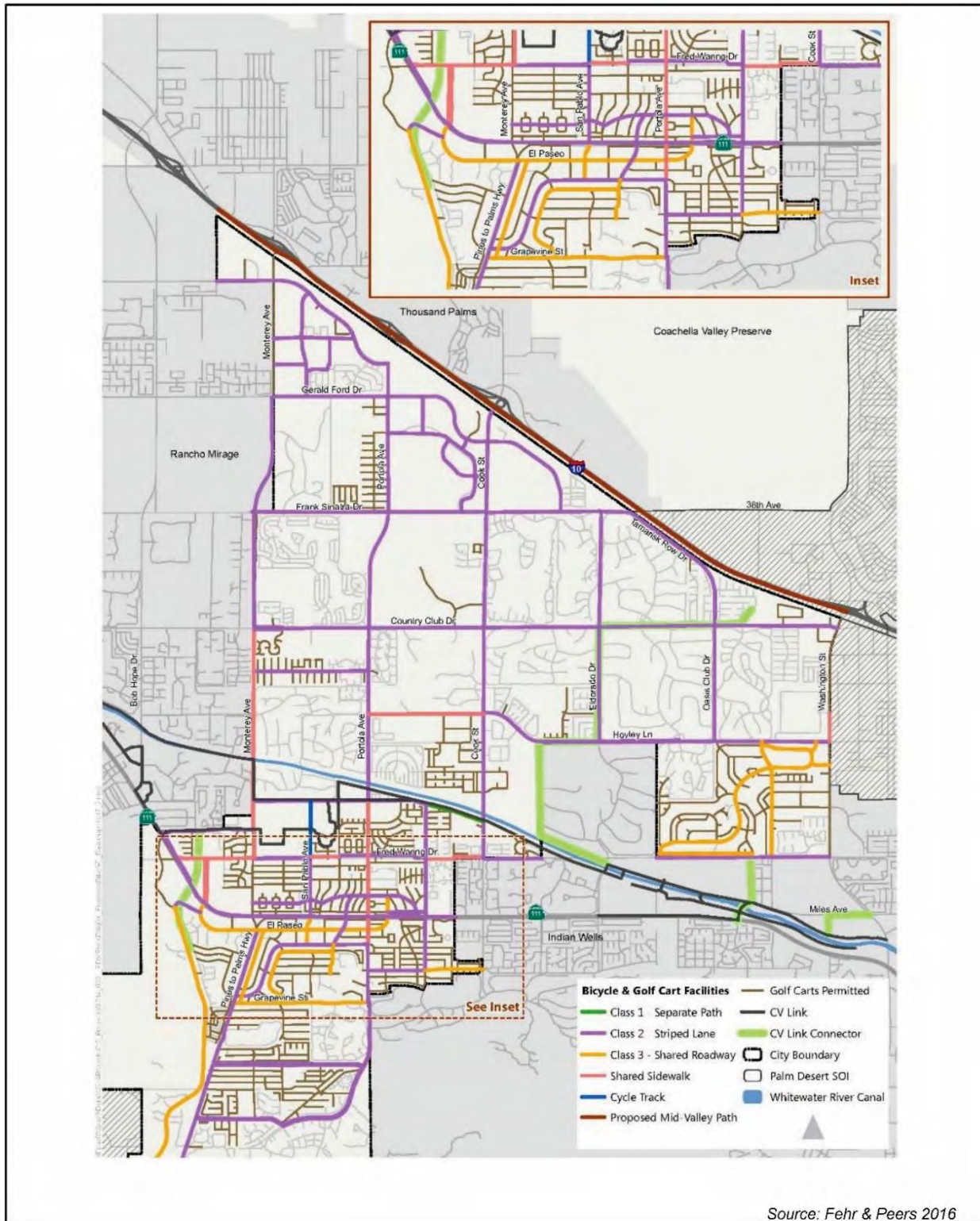
- **Policy 1.1: Complete Streets.** Consider all modes of travel in planning, design, and construction of all transportation projects to create safe, livable, and inviting environments for pedestrians, bicyclists, motorists and public transit users of all ages and capabilities.
- **Policy 1.2: Transportation System Impacts.** Evaluate transportation and development projects in a manner that addresses the impacts of all travel modes on all other travel modes through the best available practices.
- **Policy 1.3: Facility Service Levels.** Determine appropriate service levels for all modes of transportation and develop guidelines to evaluate impacts to these modes for all related public and private projects.
- **Policy 1.4: Transportation Improvements.** Consider improvements that add roadway or intersection capacity for vehicles only after considering improvements to other modes of travel.
- **Policy 1.5: Transportation Network Consistency.** Perform a formal evaluation of any transportation projects to verify consistency with the goals and policies in the General Plan prior to approving funding for those projects.
- **Policy 1.6: Emergency Vehicle Access.** Evaluate the impacts of transportation network changes on emergency vehicle access and response times.
- **Policy 1.7: System Efficiency.** Prioritize transportation systems management (TSM) strategies such as signal coordination, signal retiming, and other applicable techniques to limit unnecessary delay and congestion for vehicles.
- **Policy 2.1: Public Parking Facilities.** Provide new public parking facilities only after applying appropriate techniques to manage parking demand and ensure efficient use of all public and private parking facilities.
- **Policy 2.2: Parking Management.** Actively manage public parking facilities to ensure that all potential users are benefitting from this civic resource.
- **Policy 2.3: Parking Cost Effectiveness.** Continue to evaluate supply and demand and implement appropriate strategies to maximize use and cost effectiveness of public parking facilities.
- **Policy 2.4: Public/Private Partnerships.** Promote the use of joint public and private approaches to parking which might include leasing of private parking lots for short-term or long-term use, using public parking for temporary private functions, or the construction of joint-use facilities.
- **Policy 2.5: Innovative Parking Approaches.** Allow the use of innovative parking supply and demand strategies such as shared parking, unbundling parking, and other related items within privately owned parking facilities to allow an appropriate level of flexibility for these private land owners.

- **Policy 2.6: Formal Parking Evaluations.** Perform formal evaluations of parking capacity on a biannual basis to identify areas where parking is under- or over-utilized.
- **Policy 3.1: Pedestrian Network.** Provide a safe and convenient circulation system for pedestrians that include sidewalks, crosswalks, place to sit and gather, appropriate street lighting, buffers from moving vehicles, shading, and amenities for people of all ages.
- **Policy 3.2: Prioritized Improvements.** Prioritize pedestrian improvements in areas of the city with community and/or education facilities, supportive land use patterns, and non-automotive connections such as multi-use trails and transit stops.
- **Policy 3.3: Roadway Sidewalks.** Where feasible, provide adequate sidewalks along all public roadways.
- **Policy 3.4: Access to Development.** Require that all new development projects or redevelopment projects provide connections from the site to the external pedestrian network.
- **Policy 3.5: Pedestrian Education and Awareness.** Support regional efforts to encourage walking and also to reduce vehicular/pedestrian collisions.
- **Policy 3.6: Safe Pedestrian Routes to School.** Consider school access as a priority over vehicular movements when any such conflicts occur.
- **Policy 4.1: Bicycle Networks.** Provide bicycle facilities where shown on Figure 4.2 along all roadways to implement the proposed network of facilities outlined in the General Plan.
- **Policy 4.2: Prioritized Improvements.** Prioritize and capitalize on opportunities to provide bicycle facilities that connect community facilities, supportive land use patterns, pedestrian routes, and transit stations.
- **Policy 4.3: Bicycle Parking.** Require public and private development to provide sufficient bicycle parking.
- **Policy 4.4: Bicycle Education.** Develop educational programs that educate bicyclists on lawful/responsible riding.
- **Policy 4.5: Regional Bicycle Safety.** Support regional efforts to educate all travelers on measures to improve safety for bicyclists.
- **Policy 5.1: Transit Service.** Promote public transit service in areas of the City with appropriate levels of density, mix of residential and employment uses, and connections to bicycle and pedestrian networks.
- **Policy 5.2: Bus Stop Location.** Regularly review bus stop locations in conjunction with Sunline Transit to ensure that bus stops reflect current land use and transportation networks.
- **Policy 5.3: Private Transit.** Encourage the implementation of private transit services in a manner which minimizes negative impacts on public transportation facilities.

- **Policy 5.4: Senior Transit.** Encourage existing paratransit services in the City to provide transit access for seniors and persons with disabilities.
- **Policy 5.5: Private Development Access to Transit.** Review development proposals to limit impacts on existing or proposed transit facilities.
- **Policy 5.6: Safe Routes to Transit.** Regularly review transit stop locations to maintain safe access for pedestrians and bicyclists.
- **Policy 6.1: Fair Share Costs.** Require that new development pay for its fair share of construction costs related to new and/or upgraded infrastructure needed to accommodate the development.
- **Policy 6.2: Multi-Modal Impacts.** Develop and apply funding mechanisms that require the fair share contributions for impacts to all modes of transportation associated with development or redevelopment.
- **Policy 6.3: Operations and Maintenance Costs.** Evaluate potential changes in citywide operations and maintenance costs for transportation facilities prior to the construction of any new facilities.
- **Policy 6.4: Development Contribution to Operations and Maintenance Costs.** Consider funding strategies that require private development to contribute to the ongoing operations and maintenance of transportation infrastructure within the City.
- **Policy 6.5: Cap-and-Trade Funds.** Take advantage of funds from the State’s cap-and-trade program to apply to projects and programs in the City, when possible.
- **Policy 7.1: Ongoing Monitoring.** Regularly monitor the performance of all major transportation facilities within the City including major roadways, pedestrian facilities, bicycle lanes, and transit stops.
- **Policy 7.2: Safety Review.** Continue to coordinate with law enforcement agencies to identify major accident locations including those affecting vehicles, bicyclists, and pedestrians. Regularly publish reports regarding traffic safety conditions in the city.
- **Policy 8.1: Alternative Fueled City Owned Vehicles.** Encourage the purchase of City vehicles which use fuel sources other than fossil fuels while considering factors such as cost effectiveness, environmental impacts, and the availability of local maintenance.
- **Policy 8.2: Innovative Vehicle Technologies.** Regularly monitor and evaluate new vehicle technologies such as autonomous and connected vehicles for use by City Staff.
- **Policy 8.3: Emerging Mobility Strategies.** Encourage the deployment of emerging transportation approaches such as transportation network companies, mobility hubs and comprehensive mobility providers by private vendors.

- **Policy 8.4: Big Data.** Regularly evaluate new data sources including but not limited to real time traffic and parking information for use by City Staff and residents.
- **Policy 8.5: Analysis Tools.** Regularly evaluate state of the practice transportation analysis tools and procedures to determine their utility in the analysis of existing and future transportation conditions.
- **Policy 8.6: Electric Vehicles.** Encourage the use of electric vehicles (EV), including golf carts and Neighborhood Electric Vehicles (NEV) by supporting the use of EVs and encouraging NEV charging stations to be powered with renewable resources.
- **Policy 9.1: Regional Vehicular Traffic.** Be mindful of local impacts from regional “through” traffic. Consider but don’t prioritize the movement of through vehicles through Palm Desert roadways.
- **Policy 9.2: Regional Roadways.** Coordinate with Caltrans, RCTC, CVAG, and other agencies on the planning, design, and construction of regional roadways to provide an appropriate level of regional connectivity.
- **Policy 9.3: Regional Bicycle and Pedestrian Facilities.** Coordinate with CVAG and other agencies on the planning, design, and construction of regional non-motorized routes such as CV Link.
- **Policy 9.4: Regional Transit.** Collaborate with RCTC, CVAG, and Sunline Transit in the planning, design, and construction of regional transportation facilities, emphasizing the construction of a Metrolink station in Palm Desert.
- **Policy 9.5: Regional Priorities.** Identify and prioritize desired regional roadway, transit, and non-motorized improvements to focus the City’s outreach with agencies such as Caltrans, CVAG, RCTC, and elected officials.

Figure 4.15-6 General Plan Bicycle and Golf Cart Network



Michael Baker
INTERNATIONAL

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Source: Fehr & Peers 2016

City of Palm Desert • SCH#2015081020 Environmental Impact Report
GENERAL PLAN AND BICYCLE AND GOLF CART NETWORK

Volume Forecasts

The analysis of potential transportation impacts at the study locations was based on forecast demand volumes from the Palm Desert Traffic Analysis Model (PDTAM), a trip-based four-step model. The model was developed by adding detail and refining model assumptions in the Riverside County travel demand model (RIVTAM).

Thresholds of Significance

For the purposes of this EIR, impacts on transportation are considered significant if adoption and implementation of the General Plan update would:

Threshold	Determination
1. Degrade peak hour operations at an intersection from an acceptable LOS D, increase control delay by 2.0 or more seconds at an intersection already operating unacceptably, degrade daily level of service at a roadway segment from an acceptable LOS D, or increase volume by 2% or more on a segment already operating unacceptably.	Less Than Significant (After Mitigation)
2. Conflict with Caltrans traffic study guidelines, which establish LOS C as the performance standard	Significant and Unavoidable
3. Conflict with the Riverside County Congestion Management Program, which establishes LOS E as the performance standard	Less Than Significant
4. Conflict with the performance standards of jurisdictions adjacent to Palm Desert	Less Than Significant
5. 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	Less Than Significant
6. Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses	Less Than Significant
7. Result in inadequate emergency access	Less Than Significant
8. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities	Less Than Significant

Analysis Methodologies

City of Palm Desert

Intersections and roadway segments in Palm Desert were analyzed under the same methodology as existing conditions, with a performance standard of LOS D. Existing conditions incorporated the measured peak hour factor (PHF²) at local intersections; however, a PHF of 0.95 was applied for future conditions.

² PHF is defined by dividing the hourly traffic volume by four times the 15-minute peak period measured within the peak hour and adjusts the analysis to account for these peaking characteristics within the peak hour. Typically, locations with higher volumes experience a high PHF (closer to 1.0) whereas rural locations with low volumes experience a low PHF. For future conditions in urban and suburban locations, it is typical to assume a higher PHF (either 0.95 or 1.0).

Caltrans

Caltrans intersections and freeway segments were analyzed under the same methodology as existing conditions with a performance standard of LOS C. A peak-hour factor of 0.95 was applied for future conditions.

County of Riverside CMP

CMP intersections and roadway segments were analyzed under the same methodology as existing conditions, with a performance standard of LOS E. However, an intersection peak-hour factor of 0.925 was applied for future conditions.

City of Rancho Mirage

Roadway segments in Rancho Mirage were analyzed under the same methodology as existing conditions, with a performance standard of LOS D.

City of Indian Wells

Roadway segments in Indian Wells were analyzed under the same methodology as existing conditions, with a performance standard of LOS E.

City of La Quinta

Roadway segments in La Quinta were analyzed under the same methodology as existing conditions, with a performance standard of LOS D.

County of Riverside (Unincorporated)

Roadway segments in Riverside County were analyzed under the same methodology as existing conditions, with a performance standard of LOS D.

Impacts and Mitigation Measures

IMPACT 4.15-1 **LOS Performance Standard.** *Adoption and implementation of the General Plan update would degrade peak hour operations from acceptable performance at 2 of 39 intersections and degrade daily level of service from acceptable performance at 1 of 40 roadway segments to operate below the LOS D standard. This would result in a **potentially significant** impact.*

Table 4.15-23 shows the intersection level of service for the Buildout (2040) scenario. Level of service calculation worksheets are included in **Appendix 4.15-5**. **Figure 4.15-7** shows the peak-hour intersection volumes and geometries in this scenario. Two of the 39 study intersections are anticipated to operate below the LOS D standard during the PM peak hour:

- 15. Washington Street & Country Club Drive (LOS E)
- 36. Monterey Avenue & Dinah Shore Drive (LOS E)

Table 4.15-23 Buildout (2040) Intersection Level of Service: Palm Desert

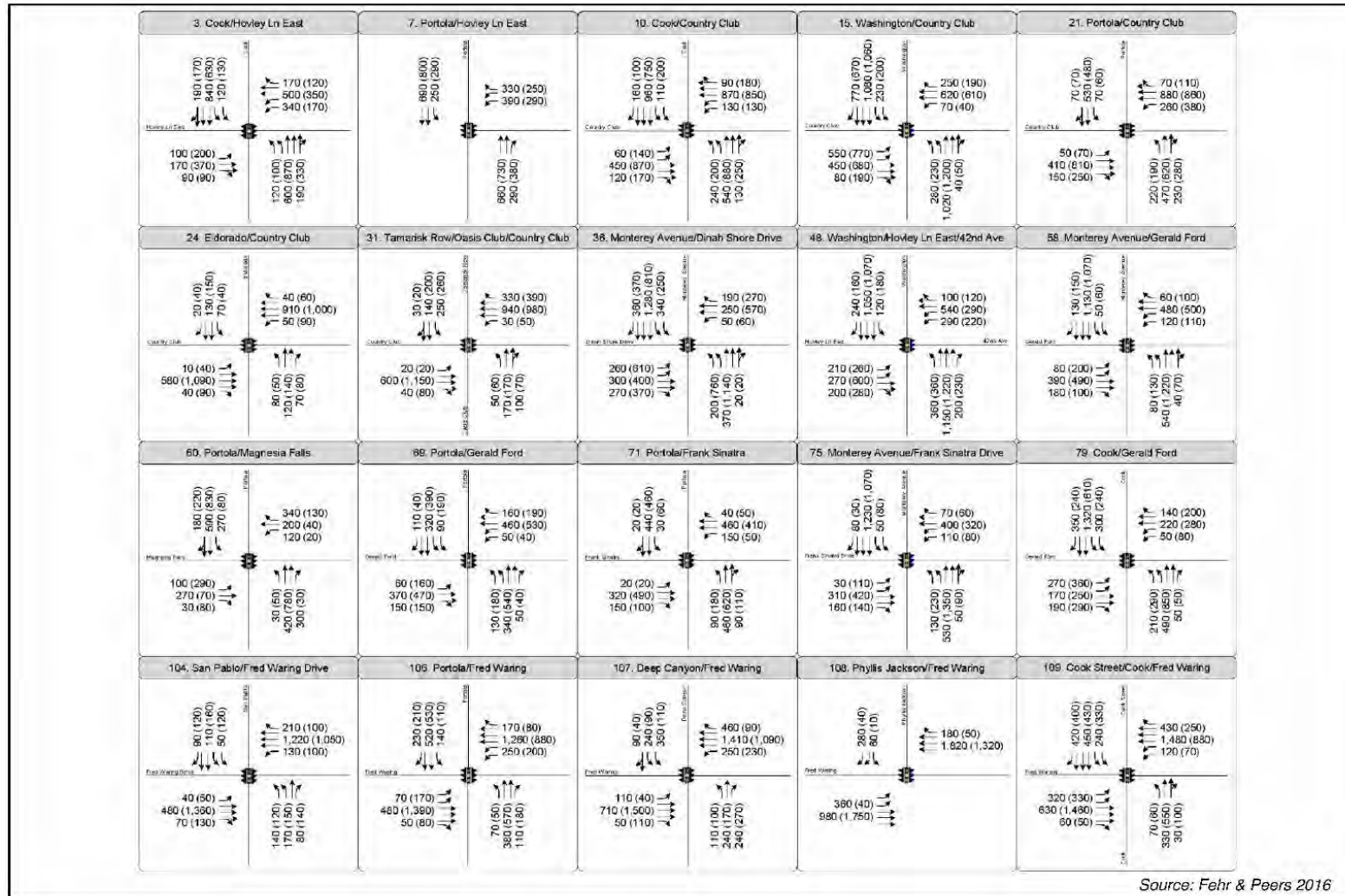
Intersection	Intersection Control	Peak Hour	Delay (sec)	LOS	Change (from Existing)
3. Cook St. & Hovley Ln. East	Signal	AM	25.4	C	-2.4
		PM	26.9	C	0.0
7. Portola Ave. & Hovley Ln. East	Signal	AM	18.6	B	-0.9
		PM	17.5	B	-0.5
10. Cook St. & Country Club Dr.	Signal	AM	34.5	C	-2.1
		PM	37.3	D	1.6
15. Washington St. & Country Club Dr.	Signal	AM	43.7	D	-0.1
		PM	57.7	E	17.7
21. Portola Ave. & Country Club Dr.	Signal	AM	44.1	D	2.6
		PM	54.9	D	17.6
24. Eldorado Dr. & Country Club Dr.	Signal	AM	13.9	B	0.8
		PM	25.2	C	-2.3
31. Oasis Club Dr./Tamarisk Row Dr. & Country Club Dr.	Signal	AM	35.5	D	15.7
		PM	26.7	C	2.1
36. Monterey Ave. & Dinah Shore Dr.	Signal	AM	35.5	D	0.1
		PM	63.2	E	18.5
48. Washington St. & Hovley Ln. East/42nd Ave.	Signal	AM	41.6	D	0.9
		PM	49.1	D	4.7
58. Monterey Ave. & Gerald Ford Dr.	Signal	AM	30.7	C	1.9
		PM	33.0	C	5.1
60. Portola Ave. & Magnesia Falls Dr.	Signal	AM	33.2	C	-31.7
		PM	36.3	D	-9.2
69. Portola Ave. & Gerald Ford Dr.	Signal	AM	20.0	B	2.0
		PM	23.9	C	5.6
71. Portola Ave. & Frank Sinatra Dr.	Signal	AM	29.4	C	-5.8
		PM	30.7	C	2.8
75. Monterey Ave. & Frank Sinatra Dr.	Signal	AM	27.7	C	1.8
		PM	28.5	C	5.9
79. Cook St. & Gerald Ford Dr.	Signal	AM	31.6	C	2.7
		PM	34.0	C	2.1
104. San Pablo Ave. & Fred Waring Dr.	Signal	AM	16.8	B	0.9
		PM	27.0	C	0.3
106. Portola Ave. & Fred Waring Dr.	Signal	AM	25.9	C	0.1
		PM	39.1	D	6.8
107. Deep Canyon Rd. & Fred Waring Dr.	Signal	AM	36.9	D	3.9
		PM	29.5	C	0.9
108. Fred Waring Dr. & Phyllis Jackson Ln.*	Signal	AM	21.1	C	8.5
		PM	2.3	A	0.0
109. Cook St. & Fred Waring Dr.	Signal	AM	40.7	D	4.4
		PM	41.7	D	2.3

Intersection	Intersection Control	Peak Hour	Delay (sec)	LOS	Change (from Existing)
122. Washington St. & Fred Waring Dr.	Signal	AM	42.1	D	1.2
		PM	46.0	D	7.1
128. Hwy. 74 & El Paseo	Signal	AM	6.5	A	0.2
		PM	16.9	B	0.7
169. Monterey Ave. & Country Club Dr.	Signal	AM	39.0	D	-3.2
		PM	43.6	D	4.6
173. Cook St. & Frank Sinatra Dr.	Signal	AM	35.3	D	12.4
		PM	29.4	C	6.6
201. Painters Path/Park View Dr. & Hwy. 111	Signal	AM	8.5	A	1.1
		PM	17.8	B	9.4
202. Hwy. 111 & Fred Waring Dr.	Signal	AM	24.1	C	-3.4
		PM	23.9	C	-4.4
203. Hwy. 111 & Desert Crossing	Signal	AM	14.6	B	-2.2
		PM	10.9	B	-0.7
204. El Paseo/Town Center Way & Hwy. 111	Signal	AM	50.8	D	4.3
		PM	16.2	B	-1.5
205. Plaza Way & Hwy. 111	Signal	AM	8.9	A	-2.7
		PM	11.2	B	-1.9
206. Hwy. 74/Monterey Ave. & Hwy. 111	Signal	AM	27.5	C	-0.9
		PM	31.4	C	-4.2
207. San Pablo Ave. & Hwy. 111	Signal	AM	13.1	B	0.8
		PM	32.1	C	5.4
208. San Luis Rey Ave. & Hwy. 111	Signal	AM	10.4	B	-3.8
		PM	25.8	C	19.0
209. Portola Ave. & Hwy. 111	Signal	AM	33.5	C	-2.9
		PM	33.8	C	13.8
210. El Paseo/Cabrillo Rd. & Hwy. 111	Signal	AM	13.1	B	5.4
		PM	8.2	A	2.1
211. Deep Canyon Rd. & Hwy. 111	Signal	AM	19.6	B	0.0
		PM	22.1	C	2.6
213. Portola Ave. & El Paseo	Signal	AM	27.4	C	11.6
		PM	21.6	C	2.5
215. Hovley Ln. East & Oasis Club Dr.	Signal	AM	30.2	C	-19.0
		PM	33.0	C	5.2
282. Monterey Ave. & I-10 EB Off-Ramp	Signal	AM	30.2	C	-7.3
		PM	24.9	C	6.3
1220. Monterey Ave. & Fred Waring Dr.	Signal	AM	36.0	D	-0.4
		PM	36.5	D	-0.2

Source: Fehr & Peers 2016

* This intersection was analyzed using HCM 2000 methodologies due to its unique signal phasing.

Figure 4.15-7 Buildout (2040) Intersection Geometries and Peak Hour Volumes



Source: Fehr & Peers 2016

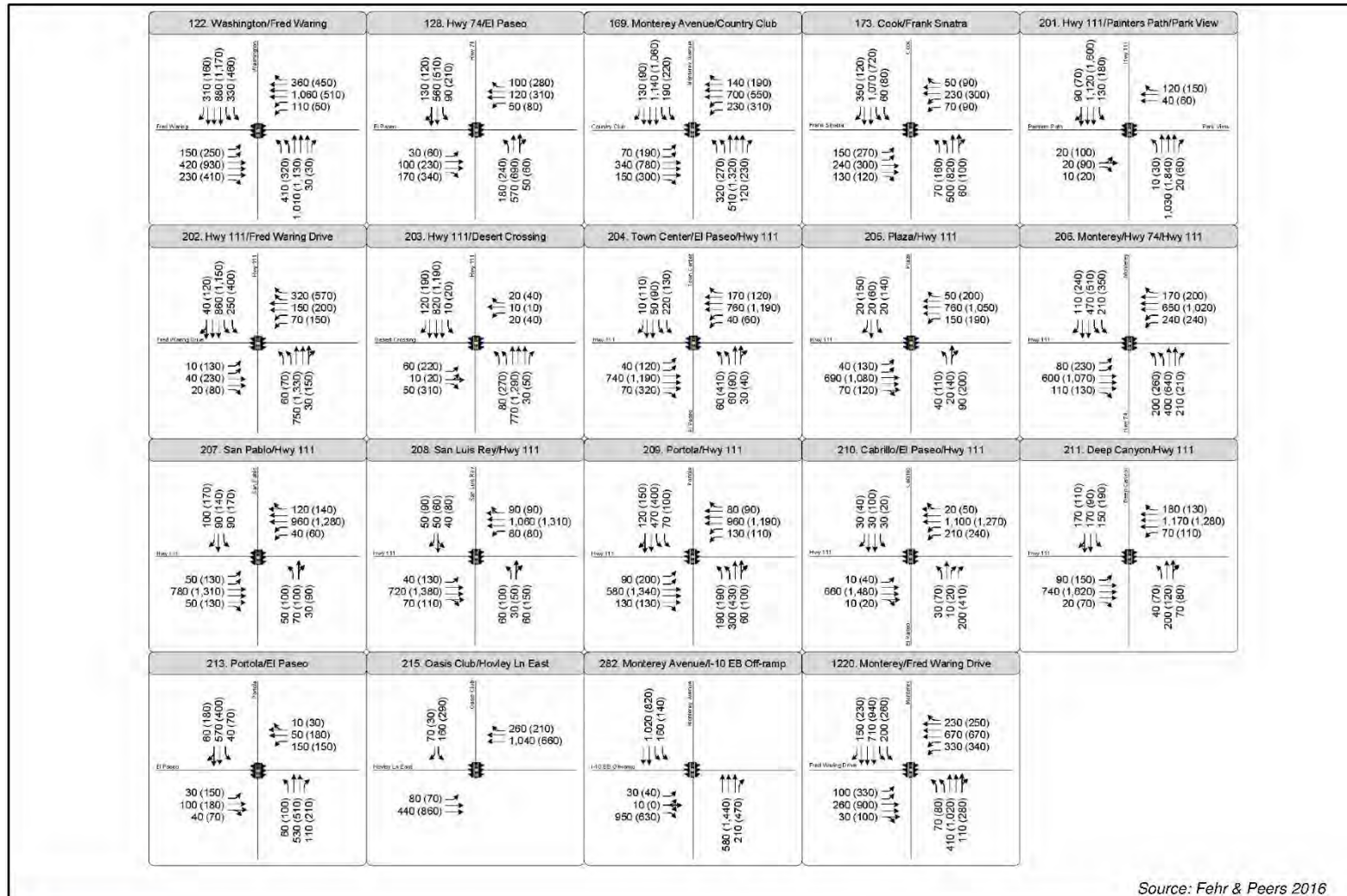


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BUILDOUT (2035) INTERSECTION GEOMETRIES AND PEAK HOUR VOLUMES

Source: Fehr & Peers 2016

Figure 4.15-7 Buildout (2040) Intersection Geometries and Peak Hour Volumes (continued)



Source: Fehr & Peers 2016



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Source: Fehr & Peers 2016

Table 4.15-24 shows the roadway segment level of service for the Buildout (2040) scenario. One of the 40 study roadway segments is anticipated to operate below the LOS D standard:

- Washington Street north of Country Club Drive (LOS F)

Table 4.15-24 Buildout (2040) Roadway Segment Level of Service: Palm Desert

Street Segment	Location	HCM 2010 Facility Type	Volume	LOS
Hwy. 111	East of Bob Hope Dr.	Major Arterial (6)	36,700	D
Hwy. 111	East of Fred Waring Dr.	Major Arterial (6)	47,900	D
Hwy. 111	West of Monterey Ave.	Major Arterial (6)	34,000	D
Hwy. 111	East of San Pablo Ave.	Major Arterial (6)	42,400	D
Hwy. 111	West of Cook St.	Major Arterial (6)	39,800	D
Hwy. 111	West of Washington St.	Major Arterial (6)	29,600	D
Monterey Ave.	North of Dinah Shore Dr.	Major Arterial (6)	44,800	D
Monterey Ave.	North of Gerald Ford Dr.	Major Arterial (6)	35,600	D
Monterey Ave.	North of Country Club Dr.	Major Arterial (6)	37,400	D
Monterey Ave.	North of Fred Waring Dr.	Major Arterial (6)	38,800	D
Portola Ave.	South of Hwy. 111	Major Arterial (4)	15,300	C or Better
Portola Ave.	North of Fred Waring Dr.	Major Arterial (4)	18,100	C or Better
Portola Ave.	North of Country Club Dr.	Major Arterial (4)	14,600	C or Better
Portola Ave.	North of Frank Sinatra Dr.	Major Arterial (4)	12,800	C or Better
Cook St.	North of Fred Waring Dr.	Major Arterial (6)	26,000	C or Better
Cook St.	North of Country Club Dr.	Major Arterial (6)	21,700	C or Better
Cook St.	North of Frank Sinatra Dr.	Major Arterial (4)	23,600	D
Cook St.	North of Gerald Ford Dr.	Major Arterial (4)	28,900	D
Washington St.	North of Hwy. 111	Major Arterial (6)	33,700	D
Washington St.	North of Fred Waring Dr.	Major Arterial (6)	40,900	D

Table 4.15-24, continued

Street Segment	Location	HCM 2010 Facility Type	Volume	LOS
Washington St.	North of Hovley Ln.	Major Arterial (6)	36,900	D
Washington St.	North of Country Club Dr.	Major Arterial (6)	51,000	F
Fred Waring Dr.	East of Hwy. 111	Major Arterial (6)	22,100	C or Better
Fred Waring Dr.	East of Monterey Ave.	Major Arterial (6)	41,000	D
Fred Waring Dr.	West of Cook St.	Major Arterial (6)	36,300	D
Fred Waring Dr.	West of Washington St.	Major Arterial (6)	32,900	D
Country Club Dr.	West of Monterey Ave.	Major Arterial (5)	25,900	D
Country Club Dr.	West of Portola Ave.	Major Arterial (6)	27,900	C or Better
Country Club Dr.	West of Washington St.	Major Arterial (6)	34,900	D
Frank Sinatra Dr.	West of Monterey Ave.	Major Arterial (4)	11,500	C or Better
Frank Sinatra Dr.	West of Portola Ave.	Major Arterial (4)	10,700	C or Better
Frank Sinatra Dr.	West of Cook St.	Major Arterial (4)	12,300	C or Better
Gerald Ford Dr.	West of Monterey Ave.	Major Arterial (4)	19,000	C or Better
Gerald Ford Dr.	East of Cook St.	Major Arterial (4)	13,300	C or Better
Dinah Shore Dr.	West of Monterey Ave.	Major Arterial (4)	30,900	D
Varner Rd.	East of Monterey Ave.	Major Arterial (4)	14,800	C or Better
Varner Rd.	East of Cook St.	Major Arterial (3)	9,800	C or Better
Varner Rd.	East of Washington St.	Major Arterial (5)	37,200	D
El Paseo.	East of Hwy. 74	Major Arterial (4)	12,900	D
Hwy. 74	North of Mesa View Dr.	Major Arterial (4)	12,600	C or Better

Source: Fehr & Peers 2016

Mitigation Measures

MM 4.15-1a The City of Palm Desert shall implement Policy 1.7 (System Efficiency) and optimize traffic signals at the intersections identified in this report that are under City jurisdiction.

Two City intersections operate below the acceptable LOS D in the PM peak hour (Washington Street & Country Club Drive and Monterey Avenue & Dinah Shore Drive) in the Buildout (2040) scenario. Optimization of the cycle length to 130 seconds at Washington Street and Country Club Drive (and the coordinated

intersections along Washington Street) would result in acceptable operations. Optimization of the cycle length to 130 seconds at Monterey Avenue & Dinah Shore Drive (and the coordinated intersections along Monterey Avenue) would result in acceptable operations when implemented in combination with the identified improvements in mitigation measure **MM 4.15-1b**. Mitigated level of service calculation worksheets are included in **Appendix 4.15-6**.

Timing/Implementation:

The City of Palm Desert will monitor operations at these facilities. Mitigation measures will be implemented when operations at these intersections reach unacceptable levels. Signal timing updates are considered standard maintenance at traffic signals and will be implemented by the Department of Public Works.

Enforcement/Monitoring:

City of Palm Desert Public Works at time of development application and as determined by General Plan Policy 7.1

MM 4.15-1b

The City of Palm Desert shall implement the following intersection and roadway improvements:

Monterey Avenue & Dinah Shore Drive: Provide an additional (third) eastbound left turn lane.

Washington Street (north of Country Club Drive): Provide an additional (fourth) southbound lane between the I-10 eastbound ramps and the Country Club Drive intersections. Suitable right-of-way can be acquired from the existing 23-foot median lane. The additional lane would transition directly to the outer southbound left turn lane at the intersection of Washington Street and Country Club Drive.

Timing/Implementation:

The City of Palm Desert will monitor operations at these facilities. Mitigation measures will be implemented by the Department of Public Works when operations at these facilities reach unacceptable levels.

Enforcement/Monitoring:

City of Palm Desert Public Works at time of development application and as determined by General Plan Policy 7.1

Significance After Mitigation

Signal optimization and the 130-second cycle length resulting from implementation of mitigation measure **MM 4.15-1a** would improve PM peak-hour operation at the intersection of Washington Street and Country Club Drive to LOS D and reduce the impact to **less than significant**. The coordinated traffic signals along Washington Street will also perform acceptably with this optimized cycle length.

Signal optimization and the 130-second cycle length resulting from implementation of mitigation measure **MM 4.15-1a** and the additional intersection capacity resulting from implementation of mitigation measure **MM 4.15-1b** would improve PM peak-hour operation at the intersection of Monterey Avenue and Dinah Shore Drive to LOS D and reduce the impact to **less than significant**. The coordinated traffic signals along Monterey Avenue will also perform acceptably with this optimized cycle length.

Additional capacity resulting from implementation of mitigation measure **MM 4.15-1b** would improve daily operation on Washington Street (north of Country Club Drive) to LOS D and reduce the impact to **less than significant**.

Impacts at the two intersections (Washington Street & Country Club Drive and Monterey Avenue & Dinah Shore Drive) and the one roadway segment (Washington Street north of Country Club Drive) would be reduced to **less than significant** with implementation of mitigation measures **MM 4.15-1a** and **MM 4.15-1b**.

Table 4.15-25 shows post-mitigation level of service for locations in Palm Desert. Level of service calculation worksheets are included in **Appendix 4.15-6**. Transportation systems are reviewed when development applications are considered by the City, and appropriate improvements integrated into the development project. In addition, General Plan policy 7.1 requires regular monitoring of all major transportation facilities. The combination of per-development review and regular monitoring by the City will determine the appropriate time of construction of improvements included in **MM 4.15a** and **MM 4.15b**.

Table 4.15-25 Buildout (2040) Level of Service (with Improvements): Palm Desert

Facility	Delay	LOS
Washington St. & Country Club Dr. (PM Peak Hour)	54.8	D
Monterey Ave. & Dinah Shore Dr. (PM Peak Hour)	53.2	D
Washington St. (north of Country Club Dr.)	—	D

Source: Fehr & Peers 2016

IMPACT 4.15-2 **Conflict with Caltrans Performance Standards.** *Adoption and implementation of the General Plan update would conflict with Caltrans traffic study guidelines by resulting in acceptable performance at the single Caltrans intersection in Palm Desert but contributing to unacceptable performance along six freeway segments. This would result in a **potentially significant** impact.*

Table 4.15-26 shows the intersection level of service for the Buildout (2040) scenario for the single Caltrans study intersection. The intersection is anticipated to meet the LOS C performance standard.

Table 4.15-26 Buildout (2040) Intersection Level of Service: Caltrans

Intersection	Intersection Control	Peak Hour	Delay (sec)	LOS
282. Monterey Ave. & I-10 EB Off-Ramp	Signal	AM	30.2	C
		PM	24.9	C

Source: Fehr & Peers 2016

Table 4.15-27 shows the Caltrans freeway segment level of service for the Buildout (2040) scenario. Level of service calculation worksheets are included in **Appendix 4.15-7**. It should be noted that future assumptions included an additional travel lane in each direction and a new interchange at Portola Ave because they are included in the constrained regional transportation plan and are included in the mobility element. All six segments are anticipated to perform below the LOS C performance standard:

- I-10 eastbound (between Monterey Avenue and Portola Avenue)
 - AM peak hour: LOS D
- I-10 eastbound (between Portola Avenue and Cook Street)
 - AM peak hour: LOS D
- I-10 eastbound (between Cook Street and Washington Street)
 - PM peak hour: LOS D
- I-10 westbound (between Washington Street and Cook Street)
 - PM peak hour: LOS D
- I-10 westbound (between Cook Street and Portola Avenue)
 - AM peak hour: LOS D
 - PM peak hour: LOS F
- I-10 westbound (between Portola Avenue and Monterey Avenue)
 - AM peak hour: LOS D
 - PM peak hour: LOS F

Table 4.15-27 Buildout (2040) Freeway Level of Service

Segment	AM			PM		
	V/C	Density	LOS	V/C	Density	LOS
I-10 EB (Monterey Ave. to Portola Ave.)	0.80	30.0	D	0.50	17.0	B
I-10 EB (Portola Ave. to Cook St.)	0.82	31.4	D	0.50	17.3	B
I-10 EB (Cook St. to Washington St.)	0.41	14.2	B	0.74	27.0	D
I-10 WB (Washington St. to Cook St.)	0.44	15.2	B	0.73	26.5	D
I-10 WB (Cook St. to Portola Ave.)	0.74	26.9	D	1.12	—	F
I-10 WB (Portola Ave. to Monterey Ave.)	0.73	26.3	D	1.14	—	F

Source: Fehr & Peers 2016

Mitigation Measures

The segments of Interstate 10 forming the northern city boundary will perform unacceptably in the Buildout (2040) scenario. Mitigating the identified impacts to these segments would require a complete reconstruction of the freeway and additional freeway travel lanes. Specifically, acceptable peak hour operations would require one additional general purpose lane in the eastbound direction and two additional general purpose lanes in the westbound direction. Since freeways are an interconnected system, it would not be possible, nor effective, to provide isolated spot improvements of one segment of the freeway where deficient operations are observed. Upgrading facilities at these specific segments would still result in unacceptable operations on Interstate 10 beyond these segments. Additionally, significant right of way acquisition would be necessary, which is partly constrained by the railroad tracks parallel to Interstate 10. Furthermore, the facilities are not controlled by the City of Palm Desert, and therefore the City of Palm Desert could not require, fund, or construct these additional lanes. Therefore, this impact is deemed **significant and unavoidable**.

In addition to the proposed facilities noted above, the following General Plan Mobility Element policies support implementation of complete streets (which, by definition, provide for all users of all ages and all abilities) or support the use of bicycles, golf carts, transit, or walking:

- Policy 1.1 – consideration of complete streets
- Policy 1.2 – evaluation of transportation system impacts on all travel modes
- Policy 1.3 – facility service levels for all travel modes
- Policy 1.4 – consider addition of vehicle capacity only after considering improvement to other travel modes
- Policy 3.1 – provide a safe and convenient pedestrian network
- Policy 3.2 – prioritization of pedestrian improvements near community and education facilities, supportive land use patterns, and non-automotive connections such as multi-use trails and transit stops
- Policy 3.3 – provide sidewalks on all public roadways
- Policy 3.6 – consider school access and safe pedestrian routes to school
- Policy 4.1 – provide bicycle facilities as shown on Figure 4.2
- Policy 4.2 – prioritize on opportunities to provide bicycle facilities that connect communities
- Policy 4.3 – require bicycle parking
- Policy 5.1 – promote public transit service
- Policy 5.2 – review bus stop locations with SunLine Transit and modify as needed
- Policy 5.3 – encourage the implementation of private transit services
- Policy 5.4 – encourage existing paratransit services

- Policy 6.2 – evaluate multi-modal impacts and require fair share contributions to mitigate impacts
- Policy 7.1 – monitor the performance of all facilities, including roadways, pedestrian, bicycle, and transit
- Policy 9.3 – coordinate with CVAG and other agencies on the planning and design of non-motorized routes such as CV Link
- Policy 9.4 – collaborate with RCTC, CVAG, and SunLine Transit on the planning and design of regional transportation facilities, emphasizing the construction of a Metrolink station in Palm Desert
- Policy 9.5 – identify and prioritize regional roadway, transit, and non-motorized improvements to focus outreach with agencies such as Caltrans, CVAG, RCTC, and elected officials

These policies require the City to consider alternative modes of travel in the planning, design and construction of future transportation projects, prioritize alternative transportation mode improvements over improvements that increase automobile capacity, and promote and protect transit service and transit facilities within the City. Together, these policies aim to reduce automobile reliance, which may in turn reduce future congestion along these freeway segments. However, such policies, and the developments and improvements they encourage, will not result in a quantifiable reduction and will not reduce the impacts to the above identified freeway segments to less than significant levels. No other technologically, legally, or economically feasible mitigation measures are available.

IMPACT 4.15-3 Conflict with Riverside County Congestion Management Program.
Adoption and implementation of the General Plan update would not conflict with the Riverside County Congestion Management Program. Adoption and implementation would maintain the level of service standard (LOS E) for CMP intersections and roadways. This would result in a less than significant impact.

Table 4.15-28 shows the CMP intersection level of service for the Buildout (2040) scenario. Level of service calculation worksheets are included in **Appendix 4.15-8**. None of the seven analyzed CMP intersections are anticipated to operate below the LOS E standard.

Table 4.15-28 Buildout (2040) Intersection Level of Service: CMP Intersections

Intersection	Intersection Control	Peak Hour	Delay (sec)	LOS
36. Monterey Ave. & Dinah Shore Dr.	Signal	AM	39.5	D
		PM	68.9	E
58. Monterey Ave. & Gerald Ford Dr.	Signal	AM	31.2	C
		PM	33.9	C
75. Monterey Ave.& Frank Sinatra Dr.	Signal	AM	28.1	C
		PM	29.2	C
128. Hwy. 74 & El Paseo	Signal	AM	6.7	A
		PM	17.0	B

Table 4.15-28, continued

Intersection	Intersection Control	Peak Hour	Delay (sec)	LOS
169. Monterey Ave. & Country Club Dr.	Signal	AM	39.6	D
		PM	44.7	D
282. Monterey Ave. & I-10 EB Off-Ramp	Signal	AM	31.1	C
		PM	25.7	C
1220. Monterey Ave. & Fred Waring Dr.	Signal	AM	36.3	D
		PM	36.5	D

Source: Fehr & Peers 2016

Table 4.15-29 shows the CMP roadway segment level of service for the Buildout (2040) scenarios. None of the analyzed CMP roadway segments are anticipated to operate below the LOS E performance standard.

Table 4.15-29 Buildout (2040) Roadway Segment Level of Service: CMP

Street Segment	Location	HCM 2010 Facility Type	Volume	LOS
Monterey Ave.	North of Dinah Shore Dr.	Major Arterial (6)	44,800	D
Monterey Ave.	North of Gerald Ford Dr.	Major Arterial (6)	35,600	D
Monterey Ave.	North of Country Club Dr.	Major Arterial (6)	37,400	D
Monterey Ave.	North of Fred Waring Dr.	Major Arterial (6)	38,800	D
Hwy. 74	North of Mesa View Dr.	Major Arterial (4)	12,600	C or Better

Source: Fehr & Peers 2016

Mitigation Measures

None required.

IMPACT Conflict with Performance Standards of Adjacent Jurisdictions.

4.15-4 *Adoption and implementation of the General Plan update would not conflict with the performance standards of jurisdictions adjacent to Palm Desert. Adoption and implementation would maintain the level of service standards for facilities in adjacent jurisdictions (Rancho Mirage, Indian Wells, La Quinta, and Riverside County). This would result in a less than significant impact.*

Table 4.15-30 shows the Rancho Mirage roadway segment levels of service for the Buildout (2040) scenario. None of the four analyzed roadway segments perform below the acceptable LOS D standard.

Table 4.15-30 Buildout (2040) Roadway Segment Level of Service: Rancho Mirage

Street Segment	Location	HCM 2010 Facility Type	Volume	LOS
Gerald Ford Dr.	West of Monterey Ave.	Major Arterial (4)	19,000	C or Better
Frank Sinatra Dr.	West of Monterey Ave.	Major Arterial (4)	11,500	C or Better
Country Club Dr.	West of Monterey Ave.	Major Arterial (5)	25,900	D
Hwy. 111	East of Bob Hope Dr.	Major Arterial (6)	36,700	D

Source: Fehr & Peers 2016

Table 4.15-31 shows the Indian Wells roadway segment level of service for the Buildout (2040) scenario. The analyzed roadway segment does not perform below the acceptable LOS E standard.

Table 4.15-31 Buildout (2040) Roadway Segment Level of Service: Indian Wells

Street Segment	Location	HCM 2010 Facility Type	Volume	Capacity	V/C	LOS
Washington St.	North of Hwy. 111	Major Arterial (6)	33,700	59,000	0.57	A

Source: Fehr & Peers 2016

Table 4.15-32 shows the La Quinta roadway segment levels of service for the Buildout (2040) scenario. Neither of the two analyzed roadway segments perform below the acceptable LOS D standard.

Table 4.15-32 Buildout (2040) Roadway Segment Level of Service: La Quinta

Street Segment	Location	Facility Type	Volume	Capacity	V/C	LOS
Washington St.	North of Hwy. 111	Major (6D)	33,700	59,300	0.57	A
Hwy. 111	West of Washington St.	Major (6D)	29,600	59,300	0.50	A

Source: Fehr & Peers 2016

Note: "U" denotes an undivided roadway and "D" denotes a divided roadway.

Table 4.15-33 shows the unincorporated Riverside County roadway segment levels of service for the Buildout (2040) scenario. None of the three analyzed roadway segments perform below the acceptable LOS D standard.

Table 4.15-33 Buildout (2040) Roadway Segment Level of Service: Riverside County

Street Segment	Location	HCM 2010 Facility Type	Volume	LOS
Varner Rd.	East of Monterey Ave.	Major Arterial (4)	14,800	C or Better
Varner Rd.	East of Cook St.	Major Arterial (3)	9,800	C or Better
Varner Rd.	East of Washington St.	Major Arterial (5)	41,500	D

Source: Fehr & Peers 2016

Mitigation Measures

None required.

IMPACT 4.15-5 **Air Traffic Patterns.** *Adoption and implementation of the General Plan update would not modify the planning or operations of Palm Springs International Airport or Bermuda Dunes Airport or introduce land use patterns that may cause substantial safety risks to or from air operations. Thus, implementation would result in a **less than significant** impact.*

Palm Springs International Airport is located approximately 9 miles northwest of the city and Bermuda Dunes Airport is located approximately 2 miles east of the city. The Palm Desert General Plan policies and programs related to land use, mobility, and structural heights would not influence air traffic patterns by creating either an increase in traffic levels or a change in location that results in substantial safety risks. Further, the land uses in the proposed project were referred to the Airport Land Use Commission (ALUC) during the Notice of Preparation for the EIR and no comments were received. City policy also refers development projects to the ALUC for consideration during preliminary consideration and environmental review. Therefore, the impact is considered **less than significant**.

Mitigation Measures

None required.

IMPACT 4.15-6 **Design Hazards.** *Adoption and implementation of the General Plan update would not substantially increase hazards due to design features or incompatible uses. Thus, implementation would result in a **less than significant** impact.*

The General Plan was developed to minimize conflicts between incompatible uses. The City of Palm Desert has developed and maintains set standard drawings to ensure that design features are consistent within the City and consistent with current design practice. These standard drawings ensure that design features related to transportation do not create any hazards on the transportation system. Given that the City maintains these standards, and that all projects processed by the General Plan are reviewed by staff for appropriate design features, this impact is considered less than significant.

In addition to the City process described above, several Mobility Element policies address safety. This includes Policy 7.2 (requiring the City to review accident data and address safety conditions in the city), Policy 1.1 (discussing complete streets and the need to create safe, livable, and inviting environments), Policy 3.1 (discussing the need for safe and convenient pedestrian system), Policy 3.6 (discussing the need for safe pedestrian routes to school), Policy 4.5 (supporting regional education to improve safety for bicyclists), and Policy 5.6 (discussion safe routes to transit). In addition, the City requires site plan review and design review of all new developments prior to issuance of any building permits. Such a review includes review for potential design hazards. Thus, City processes, standard drawings, and the policies in the Mobility Element are designed to reduce design hazards and conflicts between incompatible land uses and between all transportation network users. The impact would be **less than significant**.

Mitigation Measures

None required.

IMPACT 4.15-7 **Result in Inadequate Emergency Access.** *Adoption and implementation of policies in the updated General Plan would not result in inadequate emergency access. Adoption and implementation would reduce emergency access program-level impacts to a **less than significant** level.*

Emergency vehicles take the fastest and most expedient routes to access an emergency. In the event of an evacuation, the primary routes include, if available, Highway 111, Monterey Avenue, Cook Street, Fred Waring Drive, Country Club Drive, and Frank Sinatra Drive. Palm Desert General Plan policies include actions aimed at ensuring emergency response readiness, such as Mobility Element Policy 1.1, which requires the City to consider all modes of travel in planning, design, and construction of transportation projects to create safe environments that would be accessible during an emergency. Policy 1.3 requires the City to evaluate impacts related to adequate service levels. Policy 1.6 requires the City to evaluate the impacts of transportation network changes on emergency vehicle access and response times, which will ensure that future network changes prioritize emergency access, routes, and evacuation considerations. Policy 1.7 requires the City to employ TSM strategies where appropriate, which would aid in emergency access and response times through the coordination of signals. Finally, Policy 7.1 requires that the City regularly monitor the performance of all major transportation facilities within the City, which would also help to ensure that emergency access and evacuation routes are performing adequately.

Implementation of current state and federal regulations (for example, those regulations and standards applicable to roadway design, police protection, fire department access, etc.), combined with Palm Desert General Plan policies, would reduce the potential impacts on emergency preparedness and emergency access in the City. Therefore, the impact would be **less than significant**.

Mitigation Measures

None required.

IMPACT 4.15-8 Public Transit, Bicycle, and Pedestrian Facilities. *Adoption and implementation of the General Plan update would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. Adoption and implementation would support the maintenance and expansion of transit, bicycle, and pedestrian facilities consistent with adopted local and regional plans. Thus, implementation would result in a **less than significant** impact.*

The General Plan Mobility Element proposes a comprehensive system of bicycle lanes and golf cart facilities. Additionally, the Mobility Element identifies a series of Goals and Policies to ensure the integrity and service levels for bikes, pedestrians, golf carts, and transit facilities are maintained. Figure 4.2 in the Mobility Element (Proposed Bicycle and Golf Cart Network) was developed to be consistent with regional and local plans. The proposed roadway cross sections provide pedestrian facilities.

In addition to the proposed facilities noted above, the following General Plan Mobility Element Policies support implementation of complete streets (which, by definition, provide for all users of all ages and all abilities) or support the use of bicycles, golf carts, transit, or walking:

- Policy 1.1 – consideration of complete streets
- Policy 1.2 – evaluation of transportation system impacts on all travel modes
- Policy 1.3 – facility service levels for all travel modes
- Policy 1.4 – consider addition of vehicle capacity only after considering improvement to other travel modes
- Policy 3.1 – provide a safe and convenient pedestrian network
- Policy 3.2 – prioritization of pedestrian improvements near community and education facilities, supportive land use patterns, and non-automotive connections such as multi-use trails and transit stops
- Policy 3.3 – provide sidewalks on all public roadways
- Policy 3.6 – consider school access and safe pedestrian routes to school
- Policy 4.1 – provide bicycle facilities as shown on Figure 4.2
- Policy 4.2 – prioritize on opportunities to provide bicycle facilities that connect communities
- Policy 4.3 – require bicycle parking
- Policy 5.1 – promote public transit service
- Policy 5.2 – review bus stop locations with SunLine Transit and modify as needed
- Policy 5.3 – encourage the implementation of private transit services
- Policy 5.4 – encourage existing paratransit services

- Policy 6.2 – evaluate multi-modal impacts and require fair share contributions to mitigate impacts
- Policy 7.1 – monitor the performance of all facilities, including roadways, pedestrian, bicycle, and transit
- Policy 9.3 – coordinate with CVAG and other agencies on the planning and design of non-motorized routes such as CV Link
- Policy 9.4 – collaborate with RCTC, CVAG, and SunLine Transit on the planning and design of regional transportation facilities, emphasizing the construction of a Metrolink station in Palm Desert
- Policy 9.5 – identify and prioritize regional roadway, transit, and non-motorized improvements to focus outreach with agencies such as Caltrans, CVAG, RCTC, and elected officials

These policies all provide consistency with existing, planned, and regional improvements supporting bicyclists, pedestrians, golf cart users, and transit users.

Therefore, with the General Plan Mobility Element’s proposed circulation network and policies, impacts to pedestrian, bicycle, and transit facilities would be **less than significant**.

Mitigation Measures

None required.

Cumulative Impacts and Mitigation

The traffic analysis included in this EIR addresses cumulative impacts to the regional transportation system. A regional traffic model was used as the base for the Palm Desert traffic model, which was used to analyze impacts of the updated General Plan at buildout, along with projected regional growth. The regional traffic model already assumes a level of growth for other nearby jurisdictions based on all reasonably foreseeable and probable future projects in the region and population/employment projections. In sum, all scenarios studied in this resource section of the EIR are considered cumulative by nature because anticipated land use forecasts for other areas are already included in the traffic model.

IMPACT 4.15-9 Cumulative LOS Performance Standard. *Adoption and implementation of the General Plan update would degrade peak-hour operations from acceptable performance at 2 of 39 intersections and degrade daily level of service from acceptable performance at 1 of 40 roadway segments operating below the LOS D standard. This would result in a **cumulatively considerable** impact.*

Regional population and employment growth is anticipated to result in traffic volumes that would exceed acceptable levels of service at two signalized intersections and one roadway segment, as discussed in Impact 4.15-1. This represents a significant cumulative impact. While the updated General Plan includes various policies to reduce traffic demand and mitigation for roadway segments and intersections, traffic is anticipated to exceed level of service standards at these intersections and roadway segments. Therefore, the General Plan update would make a cumulatively considerable contribution to this potentially **cumulatively considerable** impact.

Mitigation Measures

Implement mitigation measures **MM 4.15-1a** and **MM 4.15-1b**.

Significance after Mitigation

Signal optimization resulting from implementation of mitigation measure **MM 4.15-1a** would improve PM peak-hour operation at the intersection of Washington Street and Country Club Drive to LOS D. This would result in a **less than cumulatively considerable** impact.

Signal optimization resulting from implementation of mitigation measure **MM 4.15-1a** and the additional intersection capacity resulting from implementation of mitigation measure **MM 4.15-1b** would improve PM peak-hour operation at the intersection of Monterey Avenue and Dinah Shore Drive to LOS D. This would result in a **less than cumulatively considerable** impact as shown in **Table 4.15-25**.

Additional capacity resulting from implementation of mitigation measure **MM 4.15-1b** would improve daily operation on Washington Street (north of Country Club Drive) to LOS D. This would result in a **less than cumulatively considerable** impact as shown in **Table 4.15-25**.

Impacts at the two intersections (Washington Street & Country Club Drive and Monterey Avenue & Dinah Shore Drive) and the one roadway segment (Washington Street north of Country Club Drive) would be reduced to **less than cumulatively considerable** with implementation of mitigation measures **MM 4.15-1a** and **MM 4.15-1b** as shown in **Table 4.15-25**.

IMPACT 4.15-10 **Cumulative Conflict with Caltrans Performance Standards.** *Adoption and implementation of the General Plan update would conflict with Caltrans traffic study guidelines by resulting in acceptable performance at the single Caltrans intersection in Palm Desert but contributing to unacceptable performance along six freeway segments. This would result in a **cumulatively considerable** impact.*

Regional population and employment growth is anticipated to result in traffic volumes that would exceed acceptable levels of service at six freeway segments, as discussed in Impact 4.15-2. This represents a significant cumulative impact. The updated General Plan would have a **cumulatively considerable** impact.

Mitigation Measures

Mitigating the identified impacts to the I-10 segments would require complete reconstruction of the freeway and additional travel lanes. Since freeways are an interconnected system, it would not be possible, nor effective, to provide isolated spot improvements of one segment of the freeway where deficient operations are observed. Furthermore, the facilities are not controlled by the City of Palm Desert. Therefore, this impact is deemed **significant and unavoidable**.

However, it should be noted that the General Plan Mobility Element contains several policies that can potentially reduce the magnitude of traffic impacts on Interstate 10 by reducing vehicle trips. These policies specifically address implementation of complete streets (providing options for all modes of travel), implementing bicycle and pedestrian facilities, and improvements to the transit system. These policies promote non-automotive travel and could reduce the need for people to travel by automobile.

In addition to the proposed facilities noted above, the following General Plan Mobility Element Policies support implementation of complete streets (which, by definition, provide for all users of all ages and all abilities) or support the use of bicycles, golf carts, transit, or walking:

- Policy 1.1 – consideration of complete streets
- Policy 1.2 – evaluation of transportation system impacts on all travel modes
- Policy 1.3 – facility service levels for all travel modes
- Policy 1.4 – consider addition of vehicle capacity only after considering improvement to other travel modes
- Policy 3.1 – provide a safe and convenient pedestrian network,
- Policy 3.2 – prioritization of pedestrian improvements near community and education facilities, supportive land use patterns, and non-automotive connections such as multi-use trails and transit stops
- Policy 3.3 – provide sidewalks on all public roadways
- Policy 3.6 – consider school access and safe pedestrian routes to school
- Policy 4.1 – provide bicycle facilities as shown on Figure 4.2
- Policy 4.2 – prioritize on opportunities to provide bicycle facilities that connect communities
- Policy 4.3 – require bicycle parking
- Policy 5.1 – promote public transit service,
- Policy 5.2 – review bus stop locations with SunLine Transit and modify as needed
- Policy 5.3 – encourage the implementation of private transit services
- Policy 5.4 – encourage existing paratransit services
- Policy 6.2 – evaluate multi-modal impacts and require fair share contributions to mitigate impacts
- Policy 7.1 – monitor the performance of all facilities, including roadways, pedestrian, bicycle, and transit
- Policy 9.3 – coordinate with CVAG and other agencies on the planning and design of non-motorized routes such as CV Link
- Policy 9.4 – collaborate with RCTC, CVAG, and SunLine Transit on the planning and design of regional transportation facilities, emphasizing the construction of a Metrolink station in Palm Desert
- Policy 9.5 – identify and prioritize regional roadway, transit, and non-motorized improvements to focus outreach with agencies such as Caltrans, CVAG, RCTC, and elected officials

As previously stated, although these policies could reduce the magnitude of the impact, there is no guarantee that they will be successful enough to reduce the impact enough and the impact is considered significant and unavoidable. No other technologically, legally, or economically feasible mitigation measures are available.

Mitigation Measures

None feasible.

IMPACT 4.15-11 Cumulative Conflict with Riverside County Congestion Management Program. *Adoption and implementation of the General Plan update in addition to anticipated cumulative growth in the region would not conflict with the Riverside County Congestion Management Program. Adoption and implementation would maintain the level of service standard for CMP intersections and roadways. This would result in a less than cumulatively considerable impact.*

Table 4.15-28 shows the CMP intersection level of service for the Buildout (2040) scenario. Level of service calculation worksheets are included in **Appendix 4.15-8**. None of the seven analyzed CMP intersections are anticipated to operate below the LOS E standard.

Table 4.15-29 shows the CMP roadway segment level of service for the Buildout (2040) scenarios. None of the analyzed CMP roadway segments are anticipated to operate below the LOS E performance standard.

Since all of the CMP facilities are projected to operate at an acceptable level of service, adoption and implementation of the updated General Plan would not conflict with the Riverside County Congestion Management Program. Thus, cumulative impacts to the CMP facilities would be **less than cumulatively considerable**.

Mitigation Measures

None required.

IMPACT 4.15-12 Cumulative Conflict with Performance Standards of Adjacent Jurisdictions. *Adoption and implementation of the General Plan update in addition to anticipated cumulative growth in the region would not conflict with the performance standards of jurisdictions adjacent to Palm Desert. Adoption and implementation would maintain the level of service standards for facilities in adjacent jurisdictions (Rancho Mirage, Indian Wells, La Quinta, and Riverside County). This would result in a less than significant impact.*

Table 4.15-30 shows the Rancho Mirage roadway segment levels of service for the Buildout (2040) scenario. None of the four analyzed roadway segments perform below the acceptable LOS D standard.

Table 4.15-31 shows the Indian Wells roadway segment level of service for the Buildout (2040) scenario. The analyzed roadway segment does not perform below the acceptable LOS E standard.

Table 4.15-32 shows the La Quinta roadway segment levels of service for the Buildout (2040) scenario. Neither of the two analyzed roadway segments perform below the acceptable LOS D standard.

Table 4.15-33 shows the unincorporated Riverside County roadway segment levels of service for the Buildout (2040) scenario. None of the three analyzed roadway segments perform below the acceptable LOS D standard.

Since all of these evaluated facilities are projected to operate at an acceptable level, adoption and implementation of the General Plan update would not conflict with the performance standards of these facilities in Rancho Mirage, Indian Wells, La Quinta, and unincorporated Riverside County. Therefore, cumulative impacts to these jurisdictions would be **less than cumulatively considerable**.

Mitigation Measures

None required.

IMPACT 4.15-13 **Cumulative Air Traffic Patterns.** *Adoption and implementation of the General Plan updated in addition to anticipated cumulative growth in the region would not modify the planning or operations of Palm Springs International Airport or Bermuda Dunes Airport or introduce land use patterns that may cause substantial safety risks to or from air operations. This would be a **less than cumulatively considerable** impact.*

Palm Springs International Airport is located approximately 9 miles northwest of the city and Bermuda Dunes Airport is located approximately 2 miles east of the city. The Palm Desert General Plan policies and programs related to land use, mobility, and structural heights would not influence air traffic patterns by creating either an increase in traffic levels or a change in location that results in substantial safety risks. Therefore, the impact is considered **less than cumulatively considerable**.

Mitigation Measures

None required.

IMPACT 4.15-14 **Cumulative Design Hazards.** *Adoption and implementation of the General Plan update in addition to anticipated regional growth would not substantially increase hazards due to design features or incompatible uses. This would result in a **less than cumulatively considerable** impact.*

The General Plan was developed to minimize conflicts between incompatible uses. The City of Palm Desert has developed and maintains set standard drawings to ensure that design features are consistent within the city and consistent with current design practice. These standard drawings ensure that design features related to transportation do not create any hazards on the transportation system. Given that the City maintains these standards and that all projects processed by the General Plan are reviewed by staff for appropriate design features, this impact is considered less than cumulatively considerable.

In addition to the City process described above, several Mobility Element policies address safety. This includes Policy 7.2 (requiring the City to review accident data and address safety conditions in the city), Policy 1.1 (discussing complete streets and the need to create safe, livable, and inviting environments), Policy 3.1 (discussing the need for safe and convenient pedestrian system), Policy 3.6 (discussing the need for safe pedestrian routes to school), Policy 4.5 (supporting regional education to improve safety for bicyclists), and Policy 5.6 (discussion safe routes to transit). Thus, City

processes, standard drawings, and the policies in the Mobility Element are designed to reduce design hazards and conflicts between incompatible land uses and between all transportation network users. The impact would be **less than cumulatively considerable**.

Mitigation Measures

None required.

IMPACT 4.15-15 **Cumulatively Result in Inadequate Emergency Access.** *Adoption and implementation of policies in the updated General Plan in addition to anticipated regional growth would not result in inadequate emergency access. Adoption and implementation would reduce emergency access program-level impacts to a **less than cumulatively considerable** level..*

As discussed in Impact 4.15-7, emergency vehicles take the fastest and most expedient routes to access an emergency. In some cases, emergency vehicles may travel through multiple jurisdictions to respond to a mutual aid call. Palm Desert General Plan policies would ensure emergency response readiness and address emergency preparedness impacts including evaluating the impacts of transportation network changes on emergency vehicle access and response times. Implementation of current state and federal regulations, combined with Palm Desert General Plan policies and adjacent jurisdictions' emergency response plans, would reduce potential cumulative impacts on emergency preparedness and emergency access. The impact would be **less than cumulatively considerable**.

Mitigation Measures

None required.

IMPACT 4.15-16 **Cumulative Impacts to Public Transit, Bicycle, and Pedestrian Facilities.** *Adoption and implementation of the General Plan update would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. Adoption and implementation would support the maintenance and expansion of transit, bicycle, and pedestrian facilities consistent with adopted local and regional plans. Thus, implementation of the General Plan updated and additional development would result in a **less than cumulatively considerable** impact.*

The General Plan Mobility Element proposes a comprehensive system of bicycle lanes and golf cart facilities. Additionally, the Mobility Element identifies a series of Goals and Policies to ensure the integrity and service levels for bikes, pedestrians, golf carts, and transit facilities are maintained. Figure 4.2 of the Mobility Element (Proposed Bicycle and Golf Cart Network) was developed to be consistent with regional and local plans. The proposed roadway cross sections provide pedestrian facilities.

In addition to the proposed facilities noted above, the following General Plan Mobility Element Policies support implementation of complete streets (which, by definition, provide for all users of all ages and all abilities) or support the use of bicycles, golf carts, transit, or walking:

- Policy 1.1 – consideration of complete streets

- Policy 1.2 – evaluation of transportation system impacts on all travel modes
- Policy 1.3 – facility service levels for all travel modes
- Policy 1.4 – consider addition of vehicle capacity only after considering improvement to other travel modes
- Policy 3.1 – provide a safe and convenient pedestrian network
- Policy 3.2 – prioritization of pedestrian improvements near community and education facilities, supportive land use patterns, and non-automotive connections such as multi-use trails and transit stops
- Policy 3.3 – provide sidewalks on all public roadways
- Policy 3.6 – consider school access and safe pedestrian routes to school
- Policy 4.1 – provide bicycle facilities as shown on Figure 4.2
- Policy 4.2 – prioritize on opportunities to provide bicycle facilities that connect communities
- Policy 4.3 – require bicycle parking
- Policy 5.1 – promote public transit service
- Policy 5.2 – review bus stop locations with SunLine Transit and modify as needed
- Policy 5.3 – encourage the implementation of private transit services
- Policy 5.4 – encourage existing paratransit services
- Policy 6.2 – evaluate multi-modal impacts and require fair share contributions to mitigate impacts,
- Policy 7.1 – monitor the performance of all facilities, including roadways, pedestrian, bicycle, and transit
- Policy 9.3 – coordinate with CVAG and other agencies on the planning and design of non-motorized routes such as CV Link
- Policy 9.4 – collaborate with RCTC, CVAG, and SunLine Transit on the planning and design of regional transportation facilities, emphasizing the construction of a Metrolink station in Palm Desert
- Policy 9.5 – identify and prioritize regional roadway, transit, and non-motorized improvements to focus outreach with agencies such as Caltrans, CVAG, RCTC, and elected officials

These policies all provide consistency with existing, planned, and regional improvements supporting bicyclists, pedestrians, golf cart users, and transit users.

Therefore, with the General Plan Mobility Element’s proposed circulation network and policies, impacts to pedestrian, bicycle, and transit facilities would be **less than cumulatively considerable**.

Mitigation Measures

None required.

VMT Analysis

Senate Bill 743 (SB743) was approved in 2013 and changed the way transportation impacts would be determined according to the California Environmental Quality Act (CEQA). The bill required the Office of Planning and Research (OPR) to change the CEQA guidelines to identify a more appropriate metric for determining transportation impacts in transit priority areas. The bill goes on to direct OPR to consider applying this metric statewide (everywhere, not just within the transit priority areas) which OPR has completed and has drafted a second set of guidelines to address. The draft guidelines state that a project would cause a significant environmental impact in the event the project causes “substantial additional vehicle miles traveled (per capita, per service population, or other appropriate efficiency measure).” Although lead agencies have the ability to adopt their own significance criteria for identifying impacts under this new metric (with substantial evidence to support their criteria), OPR has provided a Technical Advisory within the guidelines to “map out” potential criteria that could be applied by local agencies. The criteria, as currently written, are outlined below.

- For residential projects, the project impact would be less than significant if the resulting project VMT ratio is 15 percent below the existing regional and city VMT ratio.
- For office projects, the project impact would be less-than-significant if the resulting project VMT ratio is 15 percent below the existing regional VMT ratio.
- For retail projects, the project impact is considered less than significant if the project is local-serving retail. Retail which increases VMT compared to previous shopping patterns may be considered significant, such as large shopping centers with intended regional draw.

OPR is in the process of revising their guidelines (which should be released later this year) and will then be submitting the guidance to the Natural Resources Agency (NRA) to complete the rulemaking process. Once the rulemaking process is complete (likely sometime in 2017), agencies will have two years to complete updates to their CEQA guidelines and significance criteria.

VMT Estimates

Fehr & Peers utilized the calibrated PDTAM travel demand forecasting model to estimate VMT for the project and the surrounding communities.

The PDTAM forecasting model is considered the most accurate way to estimate trip length in this area as it incorporates the broader SCAG region and can track trips to and from their origins and destinations. The PDTAM model reflects land use characteristics (such as land use type, average trip length by trip purpose, socioeconomic and vehicle ownership parameters, and the location of land use) and provides the best tool for estimating how far trips travel to match up with their destinations because it accounts for numerous variables that affect trip making behavior.

The VMT estimates incorporate the “full accounting” methodology in that it accounts for the complete length of the trip from the origin to the destination and assigns 100 percent of that trip distance to the City of Palm Desert. The base year and future year VMT estimates are summarized in **Table 4.15-34**. As shown in **Table 4.15-34**, implementation of the General Plan update is anticipated to reduce VMT per service population by approximately 11 percent over existing conditions.

Table 4.15-34 Palm Desert Weekday VMT

Scenario	Total VMT	VMT per Service Population ¹	Average Trip Length (miles)
Base Year Model	2,257,745	24.6	6.21
Future Year Model	2,567,477	21.9	6.69

Notes:

1. Service population is the sum of population and employment on site.

Fehr & Peers also utilized the PDTAM travel demand model skim matrix information to identify VMT for nearby cities and for the CVAG region. The resulting VMT estimates are shown in **Table 4.15-35**. As shown in **Table 4.15-35**, with implementation of the project, VMT per service population and average trip length are expected to be at the lower end of what is expected in the Coachella Valley region. In fact, with implementation of the General Plan, VMT per service population is anticipated to be approximately 13 percent below the CVAG region. Additionally, average trip length is less than all other cities in the CVAG region.

Table 4.15-35 Coachella Valley VMT Comparisons – Future Year

Area	VMT	VMT per Service Population ¹	Area
Palm Desert	2,567,477	21.9	6.69
Regional Comparison			
CVAG	24,128,472	25.1	9.36
Nearby City Comparison			
Cathedral City	2,357,367	22.5	6.88
Coachella	2,005,430	18.9	8.19
Desert Hot Springs	1,791,864	26.5	11.34
Indian Wells	341,922	33.1	8.50
Indio	2,905,842	19.5	6.70
La Quinta	2,482,410	26.2	8.77
Palm Springs	4,047,590	28.5	8.14
Rancho Mirage	1,525,055	27.6	7.73

Notes:

1. Service population is the sum of population and employment on site. Service population for counties, planning areas, unincorporated counties and cities was estimated from PDTAM Future Year Socioeconomic Data.

Summary

As shown in the information above, the Palm Desert General Plan is anticipated to result in less VMT per service population and lower average trip lengths relative to the rest of the CVAG region. Additionally, the General Plan is anticipated to result in less VMT per service population than what the city currently generates today.

It should be noted that the VMT estimates noted above were developed using the PDTAM model. As such, although they are sensitive to land use, socioeconomic data, and travel path, it is not sensitive enough to reflect other General Plan policies that would further reduce VMT (such as improvements to bicycle facilities, transit, and pedestrian facilities; transportation demand management (TDM) measures implemented by employers in the area; or other policies relating to reduced VMT). As such, the General Plan should result in additional VMT reductions that those summarized above.

References

- Caltrans (California Department of Transportation). 2002. Guide for the Preparation of Traffic Impact Studies.
- City of Indian Wells. 2013. Indian Wells General Plan Circulation Element.
- City of La Quinta. 2012. La Quinta General Plan Circulation Element.
- City of Palm Desert. 2016. Palm Desert General Plan Mobility Element.
- City of Rancho Mirage. 2005. Rancho Mirage General Plan Circulation Element
- County of Riverside. 2015. County of Riverside General Plan Circulation Element
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- Sunline Transit Agency. 2014. STA website. Accessed May 1, 2016.
<https://www.sunline.org/schedules>.
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4.16. University Neighborhood Specific Plan

Introduction

The University Neighborhood Specific Plan (UNSP) area consists of approximately 400 acres within the City limits, located approximately 3 miles north of the City's civic core bounded by Gerald Ford Drive and Frank Sinatra Drive to the North and South (respectively) and Portola Avenue and Cook Street to the West and East (respectively). The UNSP would allow for the development of a mix of uses to support both California State University San Bernardino and the University of California Riverside. While the UNSP is consistent with the General Plan that is evaluated in this EIR, it provides additional discussion on design expectations that are more precise than the General Plan.

This chapter evaluates the potential environmental impacts related to implementation of the UNSP. The UNSP will be adopted separately following adoption of the General Plan update, and will have its own findings and mitigation monitoring and reporting program. The intent of this chapter is to summarize all the impacts associated with implementation of the UNSP in a single location to make it easier to implement.

Many of the environmental impacts associated with the implementation of the UNSP are identical to those for the General Plan as a whole. To be comprehensive, an abbreviated analysis of each environmental impact area evaluated in Section 4.1 through 4.15 of this EIR, has been included in this chapter. Where the UNSP includes information affecting an environmental impact additional discussion is provided.

References and Background Information: Information for this resource chapter is based on the Technical Background Report (TBR) prepared for the General Plan update. The TBR is attached to this document as **Appendix 4.0**. This chapter also relies upon the University Neighborhood Specific Plan that is included in its entirety as **Appendix 3.0**. This EIR, including all associated documents, is available electronically on the City's website (<http://www.cityofpalmdesert.org/our-city/general-plan-update>).

Environmental Setting

The TBR provides extensive discussion of the environmental setting for the impact analysis included in this EIR document. Furthermore, a thorough analysis of the environmental setting has been included in Section 4.1-4.15 of this EIR. For a discussion of the environmental setting, in relation to a specific impact area, refer to the respective impact section of the EIR.

Impacts and Mitigation Measures

Analysis Approach

As noted above, extensive language specifically addressing each impact area has been included in Section 4.1-4.15 of this EIR. Refer to the respective impact section for a thorough review of the regulatory context and analysis approach incorporated into each impact analysis. The analysis of impacts is based on the likely consequences of adoption and implementation of the General Plan update compared to existing conditions.

Aesthetics

As noted in Section 4.1 of the EIR, the Planning Area contains a number of scenic vistas and resources including the surrounding Santa Rosa, San Jacinto and San Bernardino mountain ranges. These views are generally unobstructed by the built environment due to the lack of tall buildings within the City. The General Plan also provides a number of policies to reduce potential aesthetic impacts, as outlined in the Policies subsection of Section 4.1, including Policy 1.1 (encourages appropriate development scale), Policy 2.3 (which addresses landscaping), and Policy 2.5 (which addresses streetscaping).

The Specific Plan is consistent with the proposed policies in the General Plan, and includes specific design guidelines that affect development within the UNSP. The Guidelines are included in **Appendix 4.0** of the UNSP and summarized below:

A.1 Neighborhoods and Housing: This section describes and provides guidelines for the design of a wide range of neighborhood housing types. It is intended and permitted that these types – subject to the stated conditions – may be mixed quite freely within many neighborhood areas, with larger and smaller single family homes sharing a block or a street, with attached and detached housing types built nearby one another, and small scale multi-family housing types built adjacent to or nearby single-family housing.

A.2 Neighborhood Housing Types: These guidelines describe in some detail a palette of the neighborhood housing types mentioned above. The guidelines include characteristic and recommended building sizes, building massing, means of pedestrian and vehicular access, frontage design, on-site yard space, and other important design considerations. The enumerated housing types are recommended, but are not expected to describe every possible type or configuration. Other types may surely be proposed, and as long as they have characteristics of size, scale, massing, access, open space that are similar to and compatible with those described in Chapter 4 and **Appendix 4.0** for the subject area, they can be reviewed and approved through the project design review process

A.3 Neighborhood Center Guidelines: This section describes and provides guidelines for the design of commercial, mixed-use and multi-family building types for the Neighborhood Center zone. These building types are closely coordinated with the Street Types and Public Frontage Types of Chapter 3, and the Private Frontage Types of section A.5, below. These public space and private development design elements are intended to be combined and coordinated in a variety of ways, providing both flexibility of use and design expression while ensuring a good degree of cohesion, in order to generate a unified and coherent public realm.

A.4 Neighborhood Center Building Types: As the guidelines in section A.2 do for neighborhood housing types, these guidelines describe a range of commercial, mixed-use and multi-family building types. Other types may be considered, but all buildings in Neighborhood Centers must meet the design intent of Chapter 2, must support the public intent of Chapter 3, must meet the standards of Chapter 4, and be consistent with the intent and guidelines of Sections A.3 and A.4.

A.5 Private Frontage Types: These guidelines address the most important single topic in this Plan – the manner in which each building fronts toward and attaches to the public realm. These frontages – individually and collectively – define not only the visual character of the Plan area, but also the degrees of privacy neighborhood

residents and prominence for neighborhood center business. They are the key to making the public realm a pleasure to walk in, play in, and meet neighbors in, rather than simple utilitarian, auto-oriented streets.

A.6 On-site Open Space: These guidelines provide direction for the design of yards, courts, balconies and other on-site open spaces. This is a critically important section for builders and developers to review carefully, as one of the key intentions of the Plan is that housing be provided with private and semi-private open spaces that are high in quality and generally modest in size. This intention is a direct response to the observation that housing trends in Palm Desert have moved recently from a tradition of very large private yards and large houses on large lots, to a new trend of fairly large houses on very small lots with little or no useable private yard space.

This trend has skipped right over the long American and California traditions of small, beautiful yards and courts for small, medium or large dwellings. These yards and courts are the spaces that enable the iconic Southern California indoor-outdoor lifestyle. In most cases, these required outdoor spaces take on the scale and character of generous “outdoor rooms” rather than expansive landscaped play areas. The large landscaped yards and swimming pools that characterize the heritage of Palm Desert housing are certainly allowed by this Plan, but are not required. Houses packed tight together with no yard spaces, on the other hand, are not allowed.

A.7 Architectural Guidelines: These guidelines provide recommendations for the design of all buildings within the Plan area. Specifically, they provide direction for the materials, configurations, detailing and colors of walls, openings, projections, roofs, and other building elements. The essence of the design intentions is that buildings be simple, elegant, permanent, and reflective of and in harmony with their immediate neighborhood context, their University District context, and with the unique desert city environment of Palm Desert.

These guidelines do not require any particular architectural styles, but do suggest that architectural character relate to the Southern California and Coachella Valley heritage. Architecture may, but need not, adhere to any previously defined architectural style, but if such a style is selected it must be done well and with some rigor. Reinterpretations of defined styles should be done with high levels of skill and caution.

Specifically recommended architectural attributes (and styles) include:

- simple, solid, masonry (or stucco simulating masonry construction) architectural expression, consistent with permanence in a harsh desert climate;
- permanent, sustainable materials that age gracefully and weather well in Palm Desert’s harsh climate;
- deeply shaded openings and shaded outdoor spaces, consistent with environmental sustainability in a desert climate, and buildings where indoor and outdoor rooms flow seamlessly together;
- architecture based on the traditions of Spanish Revival, Palm Desert Ranch, Mid-Century Modern, and Contemporary styles are specifically recommended.

Architecture that combines elements from multiple styles are specifically and strongly discouraged.

A.8 Signage Guidelines: These guidelines provide direction for the design of signage and lettering on buildings.

A.9 Sustainability Design Guidelines: All of the standards and guidelines in this Plan are informed by and aimed at considerations of long term sustainability. The basic structure and organization of the plan and the design of its public realm are aimed directly at reducing automobile travel demand by bringing many daily and weekly destinations within walking or biking distance of residences, and providing a safe and comfortable environment that encourages the use of active transportation modes and a healthy outdoor lifestyle. The development standards and design guidelines for streets, public open spaces, and private development are all aimed at making sustainable places populated by sustainable buildings that reduce the rate of consumption of non-renewable resources such as petroleum, clean water, clean air, and land.

Because of the strong emphasis that the 2035 General Plan places on sustainable place-making, these brief guidelines highlight specific strategies and recommendations for assuring the long-term sustainability of the University Neighborhoods, recommending measures to reduce the per capita rates of consumption of energy, water, land, and building materials.

In addition to the architectural guidelines, the UNSP includes landscaping guidelines in Appendix B. Parallel to the architectural guidelines, the focus of the landscape guidelines is on sustainable materials – landscape that requires little water and relatively little grooming and maintenance, hardscape and wall materials that develop a patina of age rather than crumbling or flaking over time – simply, elegantly and composed to form beautiful, comfortable spaces for human habitation.

The table below outlines the thresholds of significance and determinations for aesthetics, as evaluated in Section 4.1 of the EIR.

Thresholds of Significance

The following table summarizes the impacts as described in this EIR for adoption and implementation of the proposed General Plan. Adoption of the UNSP will not change the environmental determination of the thresholds.

	Threshold	Determination
1.	Have a substantial adverse effect on a scenic vista	Less Than Significant
2.	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway	Less Than Significant
3.	Substantially degrade the existing visual character or quality of the site and its surroundings	Less Than Significant
4.	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area	Less Than Significant
5.	Cumulative effects on scenic vistas	Less Than Significant
6.	Cumulative effects on scenic resources within a state scenic highway	Less Than Significant
7.	Cumulative effects degrading existing visual character	Less Than Significant

Threshold	Determination
8. Cumulative effects of new sources of light or glare	Less Than Significant

As noted above, all impacts would be less than significant, and no mitigation is proposed. Beyond the General Plan, the UNSP includes additional design guidelines that further visual impacts within the Specific Plan area. In addition to site design, the UNSP includes public frontage standards, street standards, and street landscaping standards. The UNSP will further reduce potential aesthetic impacts by providing supplemental requirements beyond the General Plan requirements for development within the specific plan area.

As the guidelines contained in the UNSP are consistent with the policies of the proposed general plan, and provide more detail and guidance on how development should occur, the impact of the UNSP on aesthetics is similar to or less than those of the General Plan as a whole.

Agricultural and Forestry Resources

Due to the existing development within the City of Palm Springs, as well as the existing landscape within the City, impacts to agricultural impacts are not anticipated throughout the City. Within the Specific Plan area, there are no areas that contain existing or proposed agricultural or forestry uses. As such, impacts related to agricultural and forestry resources would be similar to those associated with the City as a whole. Refer to the thresholds of significance below.

Thresholds of Significance

The following table summarizes the impacts as described in this EIR for adoption and implementation of the proposed General Plan. Adoption of the UNSP will not change the environmental determination of the thresholds.

Threshold	Determination
1. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use	No Impact
2. Conflict with existing zoning for agricultural use or a Williamson Act contract	No Impact
3. Conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))	No Impact
4. Result in the loss of forestland or conversion of forestland to non-forest use	No Impact
5. Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forestland to non-forest use	No Impact

	Threshold	Determination
6.	Cumulative effects on agricultural and forestry resources	Less than Significant

Similar to the General Plan, the UNSP, allows for the establishment of agricultural uses in conjunction with other land uses. The expectation is that some of the area may be used for community gardens, farm to table businesses and similar small scale private and commercial agriculture. There is no agricultural use in the UNSP area currently, and implementation of the UNSP would have similar impacts to agriculture as the General Plan as a whole.

Air Quality

As noted in Section 4.3 of the EIR, the Project site is located in the Salton Sea Air Basin, which is managed by the South Coast Air Quality Management District (SCAQMD). Palm Desert is in a non-attainment area for PM₁₀; however, it is in attainment/meets the standard for PM_{2.5}, CD, NO₂, SO₂, and lead. As outlined in the Regulatory Setting subsection of Section 4.3, there are a number of state, federal and regional regulations that apply to air quality, including the Clean Air Act, SCAQMD Rule 403 dust regulations, and SCAQMD Rule 402 regulations. Further, there are a number of policies in the General Plan that have been developed to reduce potential air quality impacts, including Policy 6.1 (avoid locating sensitive uses near localized pollution), Policy 6.2 (require new development to meet the State Green Building Code indoor air quality standards) as well as others.

The proposed specific plan would include development that has the potential to emit pollutants through its construction and operation. The table below outlines the thresholds of significant and determinations of significance outlines in Section 4.3 of the EIR.

Thresholds of Significance

For the purposes of this EIR, impacts on air quality are considered significant if adoption and implementation of the Palm Desert General Plan update would:

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

As analyzed in the EIR, impacts associated with the General Plan would be less than significant. However, the UNSP also provides additional measures that would further reduce potential impacts related to air quality. These include inclusion of multi-modal streets in the to allow for alternative transit types, use of mixed use development to reduce vehicle trips, and integrated pedestrian facilities to facilitate walking throughout the UNSP. These features will allow for a reduction in air pollutants during the implementation of the Project. As such, impacts to air quality in the UNSP would be further reduced due to the requirements of the Project beyond those included in the General Plan.

Consistent with section 4.3 of the EIR, mitigation measures are not proposed beyond existing regulatory requirements, and impact would be less than significant.

Greenhouse Gas Emissions

As noted in Section 4.4, Greenhouse Gas Emissions, of the EIR, the implementation of the General Plan would result in the potential for Significant and Unavoidable impacts in regards to Greenhouse Gas Emissions. Future emissions would largely come from Mobile Sources (76%) as well as fuel combustion, waste disposal, solvent evaporation, miscellaneous processes, and other mobile sources. The General Plan also includes a number of policies developed to reduce greenhouse gas emissions, including Policy 2.1 (development of pedestrian facilities), Policy 2.11 (limit roadway design that emphasizes vehicles over pedestrians when possible) and Policy 3.11 (development of pedestrian connections to commercial areas). The table below outlines the Threshold of Significant and determination for greenhouse gas impacts.

Thresholds of Significance

The following table summarizes the impacts as described in this EIR for adoption and implementation of the proposed General Plan. Adoption of the UNSP will not change the environmental determination of the thresholds.

Threshold	Determination
1. Generate greenhouse gas emissions that may have a significant impact on the environment and inhibit the goals of Assembly Bill 32	Significant and Unavoidable

The proposed project would result in a significant and unavoidable impact due to future development as the General Plan is implemented. The emissions of GHG is largely related to cars and truck traffic, so reducing vehicle miles travelled will reduce GHG emissions. The proposed General Plan has a number of policies that encourage walkability in the City, development of complete streets and removal of barriers to alternative transportation. The proposed UNSP goes further by showing a more detailed transportation network for the specific plan area. As noted in the UNSP, the

“The foundation of sustainable development is neighborhood pattern. The basic layout of streets and blocks - prioritizing walkability and pedestrian comfort over vehicular speed and capacity - is the most basic requirement of sustainability, enabling a balanced mix of transportation choices biased toward active modes rather than motorized modes. Without a such a network of walkable streets and small blocks, no quantity of bioswales, solar panels and electric vehicle charging stations can achieve true, long-term sustainability.”

The UNSP furthers the proposed General Plan goals by establishing a suggested transportation network as shown in **Figure 4.14-1**. While the proposed UNSP encourages the reduction of vehicle miles travelled, there is no guarantee that future residents will avail themselves of the ability and reduce personal car travel. Further, there is no accurate method of estimating the future reduction of VMT as it relates to quantified GHG emissions. As such, while the UNSP will undoubtedly reduce GHG emissions from the estimate based on the proposed General Plan, it is not possible to determine that the reduced emissions will lower GHG impacts to less than significant. Therefore, this impact remains similar to the General Plan and be significant and unavoidable.

Biological Resources

As noted in the Environmental Setting, included in Section 4.5 of the EIR, the General Plan area contains a number of different vegetative plant communities and sensitive species; however, the majority of the Planning Area is dominated by urban land uses. The Specific Plan area is surrounded by development; however, it is largely undeveloped currently. Section 4.5, Biological Resources, outlines the existing regulatory programs that exist in regards to impacts to biological resources, as well as proposed mitigation to reduce impacts to biological resources. Refer to the table below, which outlines the thresholds of significance and impact determination.

Thresholds of Significance

The following table summarizes the impacts as described in this EIR for adoption and implementation of the proposed General Plan. Adoption of the UNSP will not change the environmental determination of the thresholds:

	Threshold	Determination
1.	Impacts to special-status species	Less Than Significant
2.	Impacts to sensitive biological communities or riparian habitat	Less Than Significant
3.	Impacts to jurisdictional wetlands	Less Than Significant
4.	Impacts to the movement of native resident or migratory fish or wildlife species or within an established migratory corridor	Less Than Significant
5.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance	Less Than Significant
6.	Cumulative impacts to biological resources	Less Than Significant

As noted and analyzed in Section 4.5, Biological Resources, impacts would be less than significant with mitigation proposed. Section 4.5 includes mitigation to work in conjunction with the MCHSP to protect potential sensitive species within the Planning Area. With implementation of the proposed mitigation, impact would be less than significant with the implementation of the UNSP.

Mitigation Measures

MM 4.5-1 Pertaining to special-status species with the potential to occur in the Planning Area that are not part of the CVMSHCP:

1. Prior to the approval of grading plans for development associated with the General Plan update, the project applicant(s) shall retain a qualified biologist to perform a biological resources evaluation for private and public development projects in order to determine the presence/absence of non-covered special-status plant species with the potential to occur in and adjacent to (within 100 feet, where appropriate) the proposed impact area, including construction access routes. It is required that such surveys be conducted at the proper time of year when rare or endangered species are both evident and identifiable.
2. For projects in which special-status species are found, likely to occur, or where the presence of the species can be reasonable inferred, the City shall require feasible mitigation of impacts to ensure that the project does not contribute to the decline of affected special-species populations in the region to the extent that their decline would impact the viability of the regional population. Before the approval of grading plans or any ground-breaking activity for development associated with the General Plan update, the project applicant(s) shall submit a mitigation plan concurrently to the CDFW and the USFWS for review and comment. The plan shall include mitigation measures for the population(s) to be directly affected. The actual level of mitigation may vary depending on the sensitivity of the species, its prevalence in the area, and the current state of knowledge about overall population trends and threats to its survival. The final mitigation strategy for directly impacted plant species shall be determined by the CDFW and the USFWS through the mitigation plan approval process.

Timing/Implementation: Prior to the approval of grading plans

Enforcement/Monitoring: City of Palm Desert Planning Department

Cultural Resources

Due to the existing development within the City of Palm Springs, opportunities for potential impacts to cultural resources are reduced in comparison to development areas consisting of predominantly undisturbed land. The specific plan area, while generally undeveloped, is surrounded by development on all sides. As noted under the Regulatory Setting subsection of section 4.6 of the EIR, a number of federal and state laws provide safeguards for cultural resources. Furthermore, the General Plan also contains a number of policies related to cultural resource protection, including Policy 9.1 (regulating the disturbance of human remains), Policy 9.2 (provides guidance for discovered human remains) and Policy 9.3 (which addressed tribal coordination for future development projects). Implementation of the Specific Plan would require compliance with applicable General Plan policies. The table below outlines the thresholds of significance and determinations for cultural resources.

Thresholds of Significance

The following table summarizes the impacts as described in this EIR for adoption and implementation of the proposed General Plan. Adoption of the UNSP will not change the environmental determination of the thresholds:

	Threshold	Determination
1.	Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5	Less Than Significant
2.	Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5	Less Than Significant
3.	Disturb any human remains, including those interred outside of formal cemeteries	Potentially Significant
4.	Cumulative Effects on Historical Resources	Potentially Significant
5.	Cumulative Effects on Archaeological Resources	Potentially Significant
6.	Cumulative Effects on Human Remains.	Less Than Significant

Furthermore, a number of mitigation measures are included in order to reduce potential impacts to cultural resources. These mitigation measures include standards for Phase I archeological studies, archeological monitoring during construction, as well as other requirements. The development within the specific plan area would result in impacts similar to those associated with the General Plan. Furthermore, future development in the specific plan area would be subject to the proposed mitigation from Section 4.6, which are included below.

Mitigation Measures

MM 4.6-2a The initial archaeological study (Phase I Assessment), at a minimum, shall consist of the following tasks in order to identify known archaeological resources in a given project site: a cultural resources records search, a pedestrian survey of the project site, a review of the land use history, and coordination with knowledgeable organizations or individuals (e.g., Native American tribes). If warranted, additional analyses such as archaeological test excavations and/or remote sensing methods shall be implemented to identify resources.

Timing/Implementation: During the environmental review process

Enforcement/Monitoring: City of Palm Desert Planning Department

MM 4.6-2b The project applicant shall coordinate with the California Native American Heritage Commission (NAHC) and local Native American tribes during the environmental review process to ensure their concerns are considered, to assist in the identification of prehistoric or Native American resources, and to assist in the development and implementation of treatment measures to reduce or avoid potential impacts to these resource from a development proposal.

Timing/Implementation: During the environmental review process

Enforcement/Monitoring: City of Palm Desert Planning Department

- MM 4.6-2c** If resources are identified, they shall be evaluated for their eligibility for listing in the California Register of Historical Resources, the National Register of Historic Places (if applicable), and/or a local listing and to determine whether the resource qualifies as a unique archaeological resource pursuant to CEQA (Phase II Assessment). Methodologies for evaluating a resource can include, but are not limited to, subsurface archaeological test excavations, additional background research, and coordination with Native Americans and other interested individuals in the community.

Timing/Implementation: During the environmental review process

Enforcement/Monitoring: City of Palm Desert Planning Department

- MM 4.6-2d** If the resources are determined eligible for listing in the California Register of Historical Resources, appropriate mitigation shall be developed and implemented to mitigate impacts to the resource. If resource avoidance measures, such as resource “capping” (covering a resource with a layer of fill soils before building on the resource) or incorporating a resource into a park plan or open space, are deemed not feasible, additional subsurface archaeological excavations (i.e., data recovery) that serve to recover significant archaeological resources before they are damaged or destroyed by the proposed development shall be implemented (Phase III Assessment). Documentation (technical reports and California Department of Parks and Recreation Site Forms) and recovered materials (artifacts and other specimens) shall be curated at a suitable repository and/or museum for future study and research.

Timing/Implementation: During the environmental review process

Enforcement/Monitoring: City of Palm Desert Planning Department

- MM 4.6-2e** Archaeological construction monitoring and construction personnel awareness training shall be conducted for development proposals that have a high potential to encounter previously unknown buried resources during construction. If resources are encountered during construction, appropriate treatment measures shall be developed to preserve the resource. If it is not feasible to preserve the resource, a program to remove or recover the resource from the construction site shall be implemented.

Timing/Implementation: During grading and construction

Enforcement/Monitoring: City of Palm Desert Planning Department

Geology and Soils

As noted in section 4.7 of the EIR, the Planning Area is potentially subject to a number of geological processes and hazards, including wind erosion, seismic groundshaking, fault rupture, and soil expansion/collapse. While these hazards exist, there are a number of state and local requirements all projects must adhere to, including the

Alquist-Priolo Act (prohibiting development of structures for human occupancy on active faults), Seismic Hazards Mapping Act, as well as the Palm Desert Municipal Code. Furthermore, a number of General Plan policies exist to protect development from seismic hazards including Policy 2.1 (seismic safety standards), Policy 2.2 (structural stability requirements) as well as many others. Development within the UNSP would be required to meet all structural requirements to reduce the potential for risks associated with geological and soil conditions. The table below outlines the thresholds of significant and impact determinations, as analyzed in Section 4.7, Geology and Soils.

Thresholds of Significance

The following table summarizes the impacts as described in this EIR for adoption and implementation of the proposed General Plan. Adoption of the UNSP will not change the environmental determination of the thresholds:

Threshold	Determination
1. (a) 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. Refer to California Geological Survey (formerly Division of Mines and Geology) Special Publication 42	Less than Significant
1. (b) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, involving: strong seismic ground shaking	Less than Significant
1. (c) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, involving: seismic-related ground failure, including liquefaction.	Less than Significant
1. (d) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, involving: landslides.	Less than Significant
2. Result in substantial soil erosion or the loss of topsoil.	Less than Significant
3. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.	Less than Significant
4. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.	Less than Significant

Threshold	Determination
5. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.	Less than Significant
6. Directly or indirectly destroy a unique paleontological resource or site or unique geological feature.	Less than Significant

As noted in the table above, impacts associated with geology and soils would be less than significant with the implementation of existing regulatory programs and policies. Implementation of the specific plan would result in impacts of a similar degree to those associated with the General Plan.

Hazards and Hazardous Materials

Section 4.8, Hazards and Hazardous Materials, of the EIR outlines the potential impacts related to the implementation of the General Plan. The Planning Area has potential risks related to hazardous material cleanup sites, hazardous material transport routes, airport related hazards, and potential fire hazard severity areas. Refer to the Environmental Setting subsection of Section 4.8 for further information. A number of existing federal and state regulations exist to reduce potential hazards risks, including the Resource Conservation and Recovery Act, Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), the Emergency Services Act, as well as many others. Further, the General Plan contains a number of policies developed to reduce potential hazards impacts, including Policy 1.1 (Establish a database containing community hazards information), Policy 1.2 (Maintain and update the City Hazard Mitigation Plan), as well as many others. The specific plan Area has the potential to contain hazardous materials within its boundaries, experience a chemical spill due to hazardous materials transport in the vicinity of the Specific Plan area, fire hazards, and potential airport accidents. Refer to the table below, which outlines the thresholds of significant and determinations evaluated in Section 4.8 of the EIR.

Thresholds of Significance

The following table summarizes the impacts as described in this EIR for adoption and implementation of the proposed General Plan. Adoption of the UNSP will not change the environmental determination of the thresholds:

Threshold	Determination
1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	Less than significant impact
2. Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment.	Less than significant impact

Threshold	Determination
3. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.	Less than significant impact
4. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.	No impact
5. For a project located within an airport land use plan, result in a safety hazard for people residing or working in the project area.	Less than significant impact
6. For a project locate within 2 miles of a private airstrip, result in a safety hazard for people residing or working in the project area.	Less than significant impact
7. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	Less than significant impact
8. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires.	Less than significant impact

While the implementation of the UNSP may result in potential hazards impacts, existing regulatory safeguards, as noted above, and proposed General Plan policies would ensure that impacts are similar to those of the proposed General Plan.

Hydrology and Water Quality

As addressed in Section 4.9, Hydrology and Water Quality, of the EIR, Palm Desert is located in an area with a number of hydrological features including a number of rivers and creeks that flow from the surrounding mountains as well as groundwater supplies. As outlined in the Regulatory Setting subsection of Section 4.9, there are a number of existing state and federal regulations regarding hydrology and water quality, including the Clean Water Act, National Flood Insurance Program, Title 22 Standards as well as others. The General Plan also has a number of policies addressing hydrology and water quality, including Policy 1.1 (requires projects to develop new stormwater infrastructure for new development), Policy 1.3 (encourages the development of groundwater infiltration facilities) as well as others. The table below outlines the thresholds of significance and impact determinations outlined in Section 4.9 of the EIR.

Thresholds of Significance

The following table summarizes the impacts as described in this EIR for adoption and implementation of the proposed General Plan. Adoption of the UNSP will not change the environmental determination of the thresholds:

Threshold	Determination
1. Violate water quality standards and waste discharge requirements	Less Than Significant

Threshold	Determination
2. Deplete groundwater supplies or interfere with groundwater recharge	Less Than Significant
3. Alter the existing drainage pattern of the site or area so as to result in substantial on- or off-site erosion or siltation	Less Than Significant
4. Substantially alter the existing drainage pattern of the site or area so as to result in on- or off-site flooding	Less Than Significant
5. Create or contribute runoff water exceeding the capacity of existing or planned stormwater drainage systems or providing substantial additional sources of polluted runoff	Less Than Significant
6. Substantially degrade water quality	Less Than Significant
7. Place housing within a 100-year flood hazard area	Less Than Significant
8. Place within a 100-year flood hazard area structures that would impede or redirect flood flows	Less Than Significant
9. Expose people or structures to a significant risk of loss, injury, or death involving flooding	Less Than Significant
10. Inundation by seiche, tsunami, or mudflow	Less Than Significant
11. Cumulative effects on water quality	Less Than Significant
12. Cumulative effects on groundwater supply and recharge	Less Than Significant
13. Cumulatively alter stormwater drainage systems and patterns resulting in erosion or flooding	Less Than Significant
14. Cumulatively place structures within 100-year flood hazard area	Less Than Significant
15. Cumulatively expose people or structures to a significant risk of loss, injury, or death involving flooding	Less Than Significant
16. Cumulative inundation by seiche, tsunami, or mudflow	Less Than Significant

The UNSP also incorporates a number of additional guidelines for improved hydrology and water quality within the specific plan area. The standards within the Specific Plan include hydrology and water quality improvement features, such as the Street Landscape Standards which incorporate areas for stormwater infiltration, On-Site Open Space Design Guidelines that include drought tolerant landscaping, and Public Open Space standards that include recommendations to reduce impermeable surfaces. Potential retention areas are shown in Figure 5.9 of the UNSP, and water quality is a key component of the Sustainability Design Guidelines included in the

specific plan. While the implementation of the Specific Plan may result in potential hydrology and water quality impacts, existing regulatory safeguards, and General Plan policies would ensure that impacts are similar to those of the proposed General Plan.

Land Use and Planning

As noted in Section 4.10, Land Use and Planning, of the EIR, the General Plan defines the development patterns of the City through the designation of land uses and polices, which directly influence the land use of the City. There are a number of state and regional regulations that apply to land use and planning, including the California Government Code, the SCAG 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy, as well as others. Furthermore, General Plan policies provide land use guidance including Policy 1.1 (encourages review of development scale), Policy 2.5 (enhance streetscaping for pedestrians) as well as many others. The table below outlines the thresholds of significance and impact determinations evaluated in Section 4.10 of the EIR.

Thresholds of Significance

The following table summarizes the impacts as described in this EIR for adoption and implementation of the proposed General Plan. Adoption of the UNSP will not change the environmental determination of the thresholds:

	Threshold	Determination
1.	Physically divide an established community	No Impact
2.	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect	Less Than Significant Impact

The UNSP includes extensive discussion related to land uses and place types based on the land use designations contained in the proposed General Plan. The UNSP includes design guidelines and placement establishing a land use pattern for the specific plan area. Development within the specific plan area will include a mix of institutional, educational, residential, commercial and employment similar to those of the proposed General Plan. The design of the UNSP results these uses connected by complete streets encourage all modes of transportation, and connectivity to the rest of the City. The UNSP includes and implements all of the environmental protection regulations adopted by the City regarding development. Because the UNSP includes all of the development requirements of the proposed General Plan and is designed to connect internally and externally to the City, development in the specific plan area would have similar impacts to those of the proposed General Plan.

Mineral Resources

As discussed in Section 4.11, Mineral Resources, of the EIR, the Planning Area contains areas that have the potential to contain mineral resources; however, sufficient study to determine the resources has not been completed. The Specific Plan area, while vacant, is not determined to contain significant mineral deposits. The table below outlines the threshold of significant and determination analyzed in Section 4.11 of the EIR.

Thresholds of Significance

The following table summarizes the impacts as described in this EIR for adoption and implementation of the proposed General Plan. Adoption of the UNSP will not change the environmental determination of the thresholds:

Threshold	Determination
1. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state and result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan	Less Than Significant

As noted above, impacts related to mineral resources would be less than significant. With existing regulatory programs, impacts within the specific plan area would be similar to those of the proposed General Plan.

Noise

As noted in the EIR, existing noise in the General Plan area is generated by traffic, aircraft, train operations, and stationary sources. Despite these sources, ambient noise levels in the City are generally low in comparison to urban areas. Noise in the City is regulated by a number of federal, state, and local laws including Federal Transportation Administration regulations, California Code of Regulations Title 21, and the Palm Desert Municipal Code Noise Ordinance. As the City grows through implementation of the General Plan and UNSP, noise levels are anticipated to increase. A number of General Plan policies address noise, including Policy 1.2 (Require noise buffers between new project and sensitive receptors), Policy 1.4 (coordinate transportation facility planning to reduce potential impacts to development) as well as many others.

The table below outlines the significance thresholds and impact determinations analyzed in Section 4.12 of the EIR.

Thresholds of Significance

For the purposes of this EIR, impacts on noise are considered significant if adoption and implementation of the Palm Desert General Plan update would:

Threshold	Determination
1. Exposure of persons to or generation of noise levels in excess of applicable local, state, or federal exterior and interior noise standards	Less Than Significant
2. Exposure of persons to or generation of excessive groundborne vibration or ground borne noise levels	Less Than Significant
3. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project	Less Than Significant

Threshold	Determination
4. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project	Less Than Significant
5. Exposure of persons residing or working in the area to excessive noise levels, for a project located within an airport land use plan or within 2 miles of a public airport	Less Than Significant
6. Exposure of persons residing or working in the project area to excessive noise levels, for a project within the vicinity of a private air strip	Less Than Significant

As analyzed in the EIR, the Project would have less than significant impacts in regards to noise. The UNSP also provides additional design features that will reduce impacts, including development of roadways that would accommodate multiple modes of transit which would reduce vehicle trips and traffic noise. Further, the UNSP design standards include requirements to move noise generating infrastructure (such as air intake systems) away from walkways. These additional measures will further reduce potential impacts associated with noise within the UNSP.

Consistent with Section 4.12 of the EIR, impact would be less than significant in regards to noise. No mitigation measures, beyond existing regulations, are proposed.

Population, Employment and Housing

As noted in Section 4.13, Population, Employment, and Housing, of the EIR, the General Plan would guide the development within the City of Palm Desert, which would allow for orderly growth and allow for additional opportunities for the growing population of the area. A number of General Plan Policies also address potential impacts, including Policy 3.5 (encourages affordable housing development), Policy 8.3 (encourages improvement of the jobs-housing balance) and Policy 9.2 (encourages efficient growth).

As shown in **Table 4.16-1**, the projected growth in the City is modest, and reflects an annual change of 0.77 percent over the 28-year period represented in the Table. Over the growth period, the UNSP area is assumed to include a portion of the overall City growth as shown in the table.

Table 4.16-1. Population & Employment Growth Estimate

	2012	2035	2040	Net Growth
City of Palm Desert				
Population	49,786	60,226	61,691	11,905
Households	23,352	30,666	31,401	8,049
Employment	36,874	49,352	50,536	13,662
University Neighborhood Specific Plan				
Population			2,368	
Households			1,67	
Employment			2,281	

While the UNSP is intended to concentrate growth in and around the universities, the anticipated growth is included in the regional projections as shown above. There are no existing homes within the specific plan area, therefore no homes will be displaced. The development of the universities is anticipated to draw students from around the region, some of whom may live in the UNSP. The student estimate for 2040 is approximately 12,000. Although some of the students will stay in the area following graduation, it is more likely that many will move elsewhere to further their education and careers. The City anticipates that growth associated with the universities will be steady and part of the growth of the region as a whole. The universities will have dorms and some housing opportunities, and the UNSP will provide additional housing potential that is included in the growth projections in **Table 4.16-1**.

Thresholds of Significance

For the purposes of this EIR, impacts on population, employment and housing are considered significant if adoption and implementation of the Palm Desert General Plan update would:

Threshold	Determination
1. Induce substantial population growth	Less Than Significant
2. Displace people or housing	Less Than Significant
3. Cumulative inducement of population growth	Less Than Significant
4. Cumulative effects displacing people or housing	Less Than Significant

As there are no existing residents within the UNSP to displace and the growth of the specific plan area is included in the regional growth projections, impacts related to population and employment are considered similar to those of the General Plan.

Public Services and Utilities

As noted in Section 4.14 of the EIR, potential future development accommodated by the implementation of the General Plan could have impact capacity of public services, including law enforcement, fire, libraries, parks, water services, as well as others. An exhaustive analysis of each public service, including regulatory setting and applicable General Plan policies, is included in Section 4.14 of the EIR. The table below contains the thresholds of significance, and impact determinations, analyzed in Section 4.14 of the EIR.

Thresholds of Significance

The following table summarizes the impacts as described in this EIR for adoption and implementation of the proposed General Plan. Adoption of the UNSP will not change the environmental determination of the thresholds:

Threshold	Determination
1. Create substantial adverse physical impacts associated with the provision of new or physically altered fire-related facilities or services, the construction and/or provision of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection and emergency services	Less Than Significant
2. Cumulative impacts on fire protection	Less Than Significant
3. Create substantial adverse physical impacts associated with the provision of 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 law enforcement services	Less Than Significant
4. Cumulative demand for law enforcement services	Less Than Significant
5. Result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services	Less Than Significant
6. Cumulative schools impacts	Less Than Significant
7. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment	Less Than Significant
8. Cumulative parks and recreation demands	Less Than Significant
9. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services	Less Than Significant
10. Cumulative library impacts	Less Than Significant

Threshold	Determination
11. Exceed wastewater treatment requirements of the Colorado River Basin Regional Water Quality Control Board	Less Than Significant
12. 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; cause the CVWD to determine it has inadequate capacity to serve projected demand for wastewater treatment, in addition to its existing commitments	Less Than Significant
13. 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.	Less Than Significant
14. Have insufficient water supplies available to serve the project from existing entitlements and resources, or would require new or expanded entitlements.	Less Than Significant
15. Cumulative water and wastewater impacts	Less Than Significant
16. Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs; not comply with federal, state, and local statutes and regulations related to solid waste	Less Than Significant
17. Cumulative solid waste impacts	Less Than Significant

The proposed Specific Plan includes integration of facilities within the Specific Plan area including park land, roadways, and educational facilities. Further, the Specific Plan includes areas of compact development that allow for a further compressed service and utility system. Furthermore, Chapter 5, Infrastructure and Public Services of the UNSP identifies infrastructure and public service needs, and proposes new resources to address future demands.

Proposed Water

Potable and non-potable water is provided to the city by the Coachella Valley Water District (CVWD). Water demand in Palm Desert and the surrounding regions is supplied by several sources including: groundwater, surface water from local streams, imported water from the State Water Project (SWP) and the Colorado River by way of the Coachella Canal, and recycled water. Natural sources of groundwater recharge come from runoff and infiltration from the San Bernardino, San Jacinto and Santa Rosa Mountains, as well as inflow from other sub-basins to the west.

CVWD has developed a Domestic Water System Hydraulic Model of the entire water supply and distribution system. This model will be utilized by CVWD staff and/or consultant(s) to properly size the facilities for each development at the developers cost.

The City's Water-Efficient Landscaping Ordinance adopted as part of the California Water Conservation Landscaping Act of 1990 establishes minimum water-efficient landscaping requirements for all new and rehabilitated public and private landscape projects. The City strongly encourages conservation of water in the form of water-efficient landscaping and irrigation design, as well as water-conserving home appliances and fixtures.

Based on an estimated water consumption of 750 gallons per day (gpd) per dwelling unit, the projected demand for 2,617 dwelling units is estimated to be 1.96 mgd. CVWD is to determine ultimate water demand for the project.

Preliminarily, the amount of proposed 8" water main needed is 68,600 feet with 7,500 feet of proposed 12" water main. Ultimate water pipe sizes and quantities to be determined once final tract map layouts and water improvement plans have been approved. It is anticipated that the existing 12" DIP, 18" DIP, and 18" CML/CML water mains along the perimeter of the project will provide sufficient water capacity without any water main upgrades. (See Figure 5.2 of the UNSP)

The following water resources are defined in order to supply the anticipated demand of the UNSP.

- One 12" water main point of connection is proposed at Frank Sinatra Drive with three additional 8" water main points of connection which will all tie into the existing 18" CML/CMC main along Frank Sinatra Drive.
- One 12" water main point of connection is proposed at Portola Road with 10 additional 8" water main points of connection which will all tie into the existing 18" CML/CMC main along Portola Avenue.
- One 12" water main point of connection is proposed at College Street with 11 additional 8" water main points of connection which will tie into the existing 18" DIP water main along College Street.
- Six 8" water main points of connection are proposed at Gerald Ford Drive which will tie into the existing 18" DIP water main along Gerald Ford Drive.

Proposed Wastewater

There is an existing 12" sewer main along Frank Sinatra Drive/Portola Road, an existing 18" sewer main along Gerald Ford Drive, and an existing 8" sewer main along portions of University Park Drive/College Street. Preliminarily, the amount of proposed 8" sewer main needed is 76,200 feet with approximately 190 manholes based on 400 foot spacing. It is anticipated that the existing 8"/12"/18" sewer mains along the perimeter of the project will provide sufficient sewer capacity without any sewer main upgrades (see Figure 5.3 of the UNSP).

The following infrastructure resources and installations are anticipated in order to supply the site and use demand of the UNSP.

- Two 8" sewer main points of connection are proposed at Frank Sinatra Drive which will tie into the existing 12" sewer main along Frank Sinatra Drive.
- Nine 8" sewer main points of connection are proposed at Portola Road which will tie into the existing 12" sewer main along Portola Road.

- Four 8" sewer main points of connection are proposed at Gerald Ford Drive which will tie into the existing 18" sewer main along Gerald Ford Drive.

Proposed Storm Drainage

There are two existing drainage catch basins at the southeast corner of Frank Sinatra Drive and Portola Road. There are also two catch basins noted to the north and south of College Drive on the east side of Portola Road as well as a catch basin at the southeast corner of Gerald Ford Drive/Portola Ave.

In order to meet the demand of the UNSP, a 17 additional subareas ranging from 17.1 to 26.0 acres are proposed within the limits of the specific plan area (See Figure 5.9 of the UNSP). Each of the subareas would have 6 catch basins with 24" storm drain pipe, which would drain to open space areas that will be used for retention. As proposed, runoff would not leave the project site alleviating any potential negative water quality impacts to downstream water bodies.

Proposed Schools

The UNSP is located within the Desert Sands Unified School District. The District operates four elementary, one middle, and one high school. The UNSP also has access to fourteen private schools located in the community. In regards to continuing education, the College of the Desert, Cal State University San Bernardino, University of California Riverside, and Brandman University all run facilities in the local area.

To expand future capacity, the Palm Springs Unified School District also has a proposed K-8 school site located within the City of Palm Desert.

Proposed Parks and Recreation

The City (including its sphere of influence) has 163 acres of parkland, 23,060 acres of open space, and 6,834 acres of golf courses. The City currently provides 3.232 acres of parkland per resident.

The UNSP includes a number of proposed new parks, green spaces/greenways and public plazas that will supplement the City's existing park inventory. As the project is phased, the City will review parkland under construction within the UNSP to ensure that sufficient supplies are provided throughout project implementation.

Proposed Emergency Services

The Riverside County Fire Department provides fire protection services for the City of Palm Desert. The nearest fire station is located approximately one mile from the project site, at the intersection of Portola Ave. and Country Club Dr. The Palm Desert Police Department is provided by the Riverside County Sheriff's Department. The Police station is located 0.5 miles west of the Project on Gerald Ford Dr.

As determined by the EIR analysis, all impacts to public services and utilities would be less than significant with the implementation of the proposed General Plan. The Specific Plan further reduces impacts in the Specific Plan area by analyzing future utility needs defining future infrastructure. Further, the Specific Plan development patterns include compact development to further reduce the extent of the future utility network. Consistent with Section 4.14 of the EIR, impact would be less than significant, and no mitigation is proposed.

Transportation

As noted in Section 4.14 of the EIR, the Circulation network would be directly impacted through the General Plan process. The General Plan includes projections for future roadways and allows for the orderly development of roadways in conjunction with future development. The City provides a number of transportation facilities and services, including bus service, bicycle and golf cart facilities, pedestrian facilities, as well as others. Future development has the potential to impact the level of service for these facilities. A number of state and regional regulations apply to transportation facilities, including the Complete Streets Act, Sustainable Communities and Climate Protection Act, the Riverside County Congestion Management Program, as well as other regulate service levels for transportation facilities. Further, the General Plan has a number of circulation policies, including Policy 1.1 (encourages development of complete streets), Policy 1.4 (encourages the addition alternative transportation facilities before additional vehicle facilities) as well as many others. The table below outlines the thresholds of significance and impact determinations analyzed in section 4.15 of the EIR.

Thresholds of Significance

The following table summarizes the impacts as described in this EIR for adoption and implementation of the proposed General Plan. Adoption of the UNSP will not change the environmental determination of the thresholds:

Threshold	Determination
1. Result in signalized intersections and roadways in Palm Desert failing to meet the performance standard of LOS D	Less than Significant
2. Conflict with Caltrans traffic study guidelines, which establish LOS C as the performance standard	Significant and Unavoidable
3. Conflict with the Riverside County Congestion Management Program, which establishes LOS E as the performance standard	Less than Significant
4. Conflict with the performance standards of jurisdictions adjacent to Palm Desert	Less than Significant
5. 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	Less than Significant
6. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses	Less than Significant
7. Result in inadequate emergency access	Less than Significant
8. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities	Less than Significant

The Specific Plan includes a land use and circulation plan that evaluates future land uses in the Specific Plan area, and roadways and other transportation facilities that would serve the Specific Plan area. Further, the Specific Plan includes guidelines for future transportation facilities including Street Type definitions, development standards, and street landscape standards to provide for a complete street environment within the Specific Plan area.

Fehr & Peers used the Palm Desert Traffic Analysis Model (PDTAM) to find the generation, distribution, and assignment of trips onto the local roadway system to and from the UNSP. Based on this analysis, Fehr & Peers identified potential near-term impacts at the facility listed below. Improvements are included in the mitigation measures provided for the General Plan.

- Intersection of Monterey Avenue and Dinah Shore Drive (MM 4.15-1a)

Additionally, Fehr & Peers identified potential near-term impacts at the three facilities listed below. These impacts can be mitigated to a less-than-significant level with the construction of the Interstate-10 interchange at Portola Avenue.

- Intersection of Monterey Avenue and the I-10 Eastbound ramps
- Monterey Avenue north of Dinah Shore Drive
- Intersection of Portola Avenue and Magnesia Falls Drive

As noted above, the General Plan does have the potential to result in significant impacts. However, as proposed, the Specific Plan contains land use and transportation features that will reduce impacts within the Specific Plan area. The Specific Plan area would be subject to the following mitigation measure also included in Section 4.15.

Mitigation Measures

MM 4.15-1a The City of Palm Desert shall implement Policy 1.7 (System Efficiency) and optimize traffic signals at the intersections identified in this report that are under City jurisdiction.

Two City intersections operate below the acceptable LOS D in the PM peak hour (Washington Street & Country Club Drive and Monterey Avenue & Dinah Shore Drive) in the Buildout (2035) scenario. Optimization of the cycle length to 130 seconds at Washington Street and Country Club Drive (and the coordinated intersections along Washington Street) would result in acceptable operations. Optimization of the cycle length to 130 seconds at Monterey Avenue & Dinah Shore Drive (and the coordinated intersections along Monterey Avenue) would result in acceptable operations when implemented in combination with the identified improvements in mitigation measure **MM 4.15-1b**.

Timing/Implementation:

Timing to be determined prior to approval of first development proposal within the UNSP.

Enforcement/Monitoring: City of Palm Desert Planning Department

MM 4.15-1b The City of Palm Desert shall implement the following intersection and roadway improvements:

Monterey Avenue & Dinah Shore Drive: Provide an additional (third) eastbound left turn lane. Right-of-way acquisition may be required.

Washington Street (north of Country Club Drive): Provide an additional (fourth) southbound lane between the I-10 eastbound ramps and the Country Club Drive intersections. Suitable right-of-way can be acquired from the existing 23-foot median lane. The additional lane would transition directly to the outer southbound left turn lane at the intersection of Washington Street and Country Club Drive.

Timing/Implementation:

Timing to be determined prior to approval of first development proposal within the UNSP.

Enforcement/Monitoring: City of Palm Desert Planning Department

Cumulative Impacts

The UNSP is anticipated to accommodate approximately 20 percent of the projected population growth through 2040. This growth will occur using all of the sustainability principles provided in the General Plan. It is reasonable to assume that connectivity for all modes of transportation will encourage more walking, biking, golf cart and transit use than can be found in the City as a whole. This in turn will reduce associated transportation impacts ranging from vehicle noise to greenhouse gas emissions. Providing for both an increase in density and amenities like jobs, shopping and services in the UNSP will reduce the distance travelled to obtain these services reducing overall vehicle miles travelled. Efficient land use will accommodate more of the growth of the City reducing the need to expand boundaries, or seek immediate intensification of existing neighborhoods.

None of the above is certain. Residents of the UNSP may still work, shop and play outside of their neighborhood which would not result in any of the reduced environmental impacts envisioned by the Specific Plan. The intent of the UNSP is to provide residents with the best opportunity to live locally. As many of the sustainability practices could result in less cost to the resident (i.e. walking vs. driving) it is fair to assume that many will act in their own best interest and make use of the opportunities provided in the UNSP resulting in a reduction in environmental impacts. As the UNSP is a part of the General Plan and incorporates the sustainability features of the General Plan, the implementation of the UNSP is considered less than cumulatively considerable.

5. OTHER CEQA REQUIRED CONSIDERATIONS

Introduction

Section 15126 of the California Environmental Quality Act (CEQA) Guidelines require that all aspects of a project must be considered when evaluating its impact on the environment, including planning, acquisition, development, and operation. As part of this analysis, the EIR must also identify (1) significant environmental effects of the proposed project, (2) significant environmental effects that cannot be avoided if the proposed project is implemented, (3) significant irreversible environmental changes that would result from implementation of the proposed project, and (4) growth inducing impacts of the proposed project. It should be noted that although growth inducement itself is not considered an environmental effect, it could potentially lead to foreseeable physical environmental effects, which are discussed under growth inducing impacts below.

Significant and Unavoidable Impacts

Section 15126.2(b) of the CEQA Guidelines requires that an EIR describe significant impacts that cannot be avoided, even with implementation of feasible mitigation measures. Chapter 2.0, Executive Summary, of this EIR identifies the significant and unavoidable impacts of the proposed project.

Significant Irreversible Environmental Effects

Section 15126.2(c) of the CEQA Guidelines requires a discussion of any significant irreversible environmental changes that would be caused by the proposed project. Section 15126.2(c) states:

Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible, since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impact and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Generally, a project would result in significant irreversible environmental changes if:

- the primary and secondary impacts would generally commit future generations to similar uses;

- the project would involve uses in which irreversible damage could result from any potential environmental accidents associated with the project;
- the project would involve a large commitment of nonrenewable resources; or
- the proposed consumption of resources is not justified (e.g., the project involved the wasteful use of energy).

Implementation of the proposed would result in the continued commitment of the majority of the planning area to urban uses, thereby precluding non-urban uses through the lifespan of the plan. While some of the existing golf courses may be converted to community scale agricultural use, restoration of the planning area to a less developed condition would not be feasible given the degree of disturbance, the urbanization of the area, long-term historic urban use, and the level of capital investment. Implementation the General Plan would represent a continued investment in historic uses within the urban area.

The CEQA Guidelines also require a discussion of the potential for irreversible environmental damage caused by an accident associated with the project. While implementation of the General Plan would potentially result in the use, transport, storage, and disposal of hazardous wastes, as described in Section 4.8, “Hazards and Hazardous Materials”, all activities would comply with applicable state and federal laws related to hazardous materials transport, use, and storage, which significantly reduces the likelihood and severity of accidents that could result in irreversible environmental damage. The proposed project does not propose an increase in airport or transportation activities directly although growth assumed in the plan may increase usage of these resources. Specific projects resulting in expansion of these resources would be subject to all applicable state and federal laws and require project-level CEQA review.

Implementation of the proposed project would result in the continuation of long-term resource commitments to urban development. The proposed project represents an incremental intensity increase over the existing General Plan by allowing for mixed uses and integrated design along State Route 111 and in the University Neighborhood Specific Plan. However, this increased intensity would represent a redevelopment of existing land uses or infill of vacant parcels substantially surrounded by existing urban development. Among other benefits, the increase in density reduces the need to annex and develop previously undeveloped lands to meet the growth projections. Operations associated with future uses would also consume fossil fuels, water, natural gas, and electrical energy, and create GHG emissions. These unavoidable consequences of urban growth are described throughout Chapter 4.4 of this EIR.

Resources that would be permanently and continually consumed with implementation of the General Plan include water, electricity, natural gas, and fossil fuels. The California Building Code, along with state and federal laws regarding efficiency of appliances and vehicles, will ensure that the amount and rate of consumption of these resources would not result in the inefficient or wasteful use of such resources.

With respect to operational activities, compliance with all applicable building codes, as well as standard conservation features, and current City programs would ensure that natural resources are conserved to the maximum extent possible. It is possible that new technologies or systems will emerge, or will become more cost-effective or user-friendly, to further reduce the reliance upon nonrenewable natural resources.

Nonetheless, future construction activities related to implementation the proposed project would result in the irretrievable commitment of nonrenewable energy resources, primarily in the form of fossil fuels (including fuel oil), natural gas, and gasoline for automobiles and construction equipment.

Growth Inducing Impacts

As required by Section 15126.2(d) of the CEQA Guidelines, an EIR must discuss ways in which a proposed project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. Also, the EIR must discuss the characteristics of the project that could encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. Growth can be induced in a number of ways, such as through the elimination of obstacles to growth, through the stimulation of economic activity within the region, or through the establishment of policies or other precedents that directly or indirectly encourage additional growth. Although growth inducement itself is not considered an environmental effect, it could potentially lead to environmental effects.

In general, a project may foster spatial, economic, or population growth in a geographic area if the project removes an impediment to growth (e.g., the establishment of an essential public service, the provision of new access to an area; a change in zoning or general plan amendment approval); or economic expansion or growth occurs in an area in response to the project (e.g., changes in revenue base, employment expansion, etc.). These circumstances are further described below:

- Elimination of Obstacles to Growth: This refers to the extent to which a proposed project removes infrastructure limitations or provides infrastructure capacity, or removes regulatory constraints that could result in growth unforeseen at the time of project approval.
- Economic Effects: This refers to the extent to which a proposed project could cause increased activity in the local or regional economy. Economic effects can include effects such as the “multiplier effect.” A “multiplier” is an economic term used to describe interrelationships among various sectors of the economy. The multiplier effect provides a quantitative description of the direct employment effect of a project, as well as indirect and induced employment growth. The multiplier effect acknowledges that the on-site employment and population growth of each project is not the complete picture of growth caused by the project.

Impacts of Induced Growth

Potential growth inducement impacts of adoption and implementation of the Proposed Project are addressed in Section 4.13, “Population, Employment, and Housing” of this EIR under Impact 4.14-1. The projected 2044 population is 61,691 which represents an overall increase of approximately 25 percent from the 2015 population of 49,335 and an average annual increase of 0.90 percent over the next 25 years. The proposed General Plan would accommodate the projected 2044 population of 61,691 residents who represent an increase of 11,905 residents from the 2012 population of 48,786. The overall growth rate for this 28 year period averages 0.77 percent per year.

The purpose of a general plan is to guide the anticipated growth and development in a community. The design focus of the HWY 111 Corridor and the University Neighborhood Specific Plan is intended to encourage development. The Proposed Project would accommodate approximately 2,368 new residents that represent about 20 percent of the anticipated population growth in the City by 2040. While the UNSP includes development of universities that would be expected to draw growth to this area of the City, the anticipated growth is included in the regional growth projection for the General Plan. There is no aspect of the proposed project that would be expected to significantly increase the growth rate projected in the community over the planning period.

Cumulative Impacts

CEQA requires that an EIR contain an assessment of the cumulative impacts that could be associated with the proposed project. As defined in CEQA Guidelines Section 15355, “Cumulative impacts refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” Although project-related impacts may be individually minor, the cumulative effects of these impacts, in combination with the impacts of other project, could be significant under CEQA and must be addressed (CEQA Guidelines Section 15130(a)). Through the evaluation of cumulative impacts, CEQA attempts to ensure that large-scale environmental impacts will not be ignored.

CEQA Guidelines Section 15130(b) allow for the use of two alternative methods to determine the scope of projects for the cumulative impact analysis:

- List Method - A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency.
- Regional Growth Projections Method - A summary of projects contained in an adopted general plan or related planning document or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact (Section 15130).

The analysis of cumulative effects “need not provide as great detail as is provided for the effects attributable to the project alone,” but the discussion “shall reflect the severity of the impacts and their likelihood of occurrence” (CEQA Guidelines Section 15130(a)(b)). Where a lead agency concludes that the cumulative effects of a project, taken together with the impacts of past, present, and probable future projects, are significant, the lead agency then must determine whether the project’s incremental contribution to such significant cumulative impact is “cumulatively considerable,” and thus significant in and of itself (CEQA Guidelines Section 15130(a)). The section additionally states “when the combined cumulative impact associated with the project’s incremental effect and the effects of other projects is not significant, the EIR shall briefly indicate why the cumulative impact is not significant and is not discussed in further detail in the EIR. A lead agency shall identify facts and analysis supporting the lead agency’s conclusion that the cumulative impact is less than significant.”

The Regional Growth Projection Method is appropriate for evaluating cumulative impacts because it accounts for general growth within the region and considers long-

term growth. The Southern California Association of Governments (SCAG) publishes an Integrated Growth Forecast which satisfies the Regional Growth Projection Method qualifiers by providing regional and long-term growth considerations based on regional planning documents.

The SCAG Integrated Growth Forecast represents a regional and small-area socio-economic forecasting/allocation model that estimates and projects population and households for the 2020 and 2035 planning horizons by federal and state mandated long-range planning efforts such as the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), the Air Quality Management Plan (AQMP), the Regional Transportation Improvement Program (RTIP), and the Regional Housing Needs Assessment (RHNA). It should be noted that forecasts such as the one prepared for the SCAG Integrated Growth Forecast are prepared as planning tools and do not predict the course of future events. SCAG's forecast, which are based on adopted general plan land use policies for jurisdictions, among other factors, are used primarily to prepare the RTP/SCS and to provide inputs into air quality management plans. Experience shows that these forecasts are most reliable at the regional and county level and less so for smaller areas like cities and census tracts.

While SCAG's projections do not account for the proposed land use changes included as part of proposed project, the regional traffic model was revised to reflect the proposed changes and the result of the analysis is included in Section 4.15 Transportation. The land use and potential development changes are also included in 4.3 Air Quality, 4.4 Greenhouse Gas Emissions and 4.12 Noise chapters of the EIR. With the exception of GHG emissions, all of the impacts associated with the land use changes are either less than significant, or can be mitigated to less than significant as shown in each chapter. Cumulative impacts for each impact area are identified in each technical discussion presented in Section 4.0.

Table 5-1. Population & Employment Growth Estimate

	2012	2035	2040	Net Growth
City of Palm Desert				
Population	49,786	60,226	61,691	11,905
Households	23,352	30,666	31,401	8,049
Employment	36,874	49,352	50,536	13,662
University Neighborhood Specific Plan				
Population			2,368	
Households			1,67	
Employment			2,281	

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6. ALTERNATIVES

Introduction

Section 15126.6(a) of the State CEQA Guidelines requires EIRs to describe “a range of reasonable alternatives to the project..., which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives.”

An EIR need not consider every conceivable alternative to a project. Rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation. An EIR is not required to consider alternatives which are infeasible.

The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason. Section 15126.6(b) describes the purpose of the alternatives analysis as follows:

Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.

The State CEQA Guidelines suggest that alternatives should be compared to the proposed project’s environmental impacts, and that the “no project” alternative be considered (State CEQA Guidelines Section 15126.6[e]). In defining “feasibility” (e.g., “feasibly attain most of the basic objectives of the project”), State CEQA Guidelines Section 15126.6(f)(1) states, in part:

Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). No one of these factors establishes a fixed limit on the scope of reasonable alternatives.

In determining what alternatives should be considered in the EIR, it is important to acknowledge the objectives of the project, the project’s significant effects, and unique project considerations. These factors are crucial to the development of alternatives that meet the criteria specified in Section 15126.6(a) of the State CEQA Guidelines.

Development of Project Alternatives

The range of alternatives included for analysis in an EIR is governed by the “rule of reason.” The selection and discussion of alternatives fosters informed decision-making and informed public participation. This is accomplished by providing sufficient information to enable readers to reach conclusions themselves about such alternatives. This approach avoids assessing an unmanageable number of alternatives or analyzing alternatives that differ too little to provide additional meaningful insights about their environmental effects. The alternatives addressed in this Draft EIR were selected in consideration of one or more of the following factors:

- The extent to which the alternative would accomplish most of the basic objectives of the project.
- The extent to which the alternative would avoid or reduce any of the identified significant environmental effects of the project.
- The feasibility of the alternative, taking into account site suitability and parcel sizes, and consistency with applicable public plans, policies, and regulations.
- The appropriateness of the alternative in contributing to a reasonable range of alternatives necessary to permit a reasoned choice.

The alternatives analyzed in this EIR were ultimately chosen based on each alternative’s ability to feasibly attain the basic project objectives while avoiding or reducing one or more of the project’s significant effects. The analysis provides readers with adequate information to compare the effectiveness of identified mitigation or significant adverse impacts and to enable readers to make decisions about the project.

Project Objectives

An EIR must describe a reasonable range of alternatives to a project that would feasibly attain the basic project objectives while avoiding or reducing one or more of the project’s significant effects (CEQA Guidelines Section 15126.6[a]). In identifying the range of alternatives for the proposed project for analysis in this EIR, the following project objectives were considered:

1. Anticipate new demographics and market trends to expand economic competitiveness and attract new employers.
2. Continue to serve as a destination that entices visitors and to endure as a community with a high quality of life that attracts the best and the brightest residents, students, and businesses.
3. Create a greater range of development patterns to offer existing and future residents additional options for the types of place they live in, maintaining a moderate density and scale: just enough to create interest and activity, but not so much as to overwhelm people and not so little as to dilute the sense of place or inhibit walking and bicycling.
4. Create safe and comfortable places for pedestrians with convenient, safe, and easy street crossings and convenient, close access to buildings.

5. Reduce automobile dependence through enhanced active transportation options.
6. Create an authentic, walkable downtown along the Highway 111 corridor.
7. Create a mixed-use, mixed-housing walkable neighborhood in the vicinity of the California State University campus.
8. Create lively centers for residents and visitors to congregate throughout the city.
9. Create a layered transportation network that will expand transportation opportunities for walking, bicycling, and transit, while recognizing the importance of the automobile, to expand access to the city and throughout the city.
10. Maintain the city's unique geographic setting by protecting existing open space and expanding the types of open space and recreational areas within the city.

Summary of Significant Impacts

The project's significant environmental impacts that the alternatives will seek to eliminate or reduce were determined and based on the findings contained in each technical section (Sections 4.1 through 4.15) of this DEIR. **Table 6.0-1** summarizes all environmental impacts from the implementation of the proposed project for which mitigation measures were identified or where it was determined that there was no feasible mitigation. The significant and unavoidable impacts include increased traffic on Interstate 10 and the determination that the cumulative citywide emissions of greenhouse gasses will be above the South Coast Air Quality Management District (SCAQMD) 2035 threshold used in this EIR.

As explained in Section 4.4, Greenhouse Gas Emissions, there is no adopted threshold for emissions. This EIR uses the SCAQMD efficiency-based threshold for proposed general plans of 6.6 metric tons of carbon dioxide equivalents (CO₂e) per service population (residents plus employees) per year in 2020 and 4.1 metric tons of CO₂e per service population per year in 2035. As shown in **Table 4.4-4**, the EIR determined that the incremental growth identified in the General Plan will be 105,449 metric tons of CO₂e annually under year 2020 conditions and 94,837 metric tons of CO₂e annually under year 2035 conditions, which results in emissions below the threshold. These levels of CO₂e can be attributed to a combination of policies in the project, design features that encourage non-motorized transportation and energy efficiencies associated with the California Building Code, landscaping and design, and even the proximity of homes to services and employment. As a General Plan, however, the policies apply to both existing and projected future development. When the existing community greenhouse gas emissions are calculated and added to the emissions from projected growth, the resulting emissions per service population are 6.5 metric tons of CO₂e for year 2020 conditions and 6.4 metric tons of CO₂e for year 2035 conditions. The 2020 conditions ratio is below the 2020 SCAQMD plan-level threshold of 6.6 metric tons per service population, yet the 2035 ratio exceeds the 2035 SCAQMD plan-level threshold of 4.1 metric tons per service population.

In the case of the impact to Interstate 10, the proposed project includes numerous policies that would reduce vehicle miles travelled, increase walking, biking, and use of alternative transportation, and encourage Palm Desert residents to stay in town for work, shopping, and recreation. Regardless, the population and employment growth projected for the city as shown in Section 3.0, Project Description, will occur with or without the proposed project. As such, it is reasonable to assume that some of the projected growth will use Interstate 10, thereby worsening the impact, regardless of this project. The City also participates in the Transportation Uniform Mitigation Fee and the City of Palm Desert Development Impact Fee, and reviews development projects to determine whether improvements to the transportation system should be an exaction on project approval. The California Department of Transportation (Caltrans) has sole jurisdiction over improvements along Interstate 10. Having no jurisdiction over the interstate limits the City’s ability to enforce physical mitigation. Further, because the City has no ability to construct, there can be no certainty between the collection of impact fee(s) for interstate improvements and the construction of improvements in time to address the impact identified in Impacts 4.15-2 and 4.15-10 in Section 4.15, Transportation.

The other impacts identified in **Table 6.0-1** are similar to existing development in the city and are easily reduced to less than significant levels through conventional mitigation measures such as notification of tribes or modification to existing intersections.

Table 6.0-1 Summary of Significant Impacts

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
Cultural Resources			
Substantial change in the Significance of a unique archaeological resource (Impact 4.6-2)	PS	MM 4.6-2a through 4.6-2d	LS
Cumulative effects on historical resources (Impact 4.6-5)	CC	General Plan policies and adherence to existing federal, state, and City regulations	LCC
Cumulative effects on archaeological resources (Impact 4.6-6)	CC	MM 4.6-2a through 4.6-2d	LCC
Greenhouse Gases			
Citywide greenhouse gas emissions will be above the SCAQMD threshold during the planning horizon (Impact 4.4-1)	PS	None feasible	SU

Table 6.0-1, continued

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
Transportation			
LOS performance standard (Impact 4.15-1)	PS	MM 4.15-1a and 4.15-1b	LS
Conflict with Caltrans performance standards (LOS) (Impact 4.15-2)	PS	None feasible	SU
Cumulative LOS performance standard (Impact 4.15-9)	CC	MM 4.15-1a and 4.15-1b	LCC
Cumulative conflict with Caltrans performance standards (Impact 4.15-10)	CC	None feasible	SU

Alternatives Descriptions and Analysis

Alternatives Rejected from Further Consideration

In accordance with CEQA Guidelines Section 15126.6, there were no alternatives suggested or rejected as infeasible during the Notice of Preparation (NOP) scoping process. However, the City nonetheless identified potential alternatives for consideration, yet ultimately eliminated these alternatives from further analysis in the EIR. Suitable alternatives are those which:

1. Can substantially reduce the proposed project's significant impacts;
2. Can attain most of the basic project objectives;
3. Are potentially feasible; and
4. Are reasonable and realistic.

Alternatives that do not meet each of these four criteria may be eliminated from further consideration in the EIR. The following alternatives have been considered by the City but rejected for their failure to meet the four criteria and therefore will not be analyzed further in this EIR.

Distributed Land Use Alternative

The Distributed Land Use Alternative was developed to determine whether accommodating projected growth in the city through increasing density in the existing neighborhoods, rather than in the Highway 111 corridor and the University Neighborhood Specific Plan (UNSP), would distribute traffic more evenly along Interstate 10. Rather than concentrating growth in the UNSP or Highway 111 areas, the same anticipated growth would occur incrementally over the city through smaller individual projects and infill. The assumption is that a more geographic distribution of

new homes and businesses would result in different routes to and from Interstate 10, reducing the impact on the roadway between Cook Street and Monterey Avenue.

The reduction of trips, pedestrian connectivity, and other General Plan and Specific Plan expectations would either occur very slowly as the intervening property is developed or would not occur at all, as there would be no resources to pay for the improvements and no way to compel existing property owners to retrofit.

This alternative was rejected because Monterey Avenue and Cook Street form two of the three existing freeway on-ramps in the area and it is logical to assume that two-thirds of existing and future traffic would continue to use the freeway segment identified in Impact 4.15-2 as failing. Further, this alternative would not meet the basic project objectives dealing with alternative transportation. Specifically, it would not meet Objective 5 because distant and separate developments will have a difficult time connecting transportation corridors. Further, Objectives 6, 7, and 8 would be more difficult, to realize as the anticipated density would be in the existing neighborhoods. Finally, as the transportation network and associated design efficiencies assumed with the 111 Corridor Plan and University Neighborhood Specific Plan would not occur, it is reasonable to assume that there would be more vehicular traffic associated with the planned growth, which would increase greenhouse gas emissions.

Off-Site Alternative

Off-site alternatives are typically included in an environmental document to avoid, lessen, or eliminate the significant impacts of a project by considering the proposed development in an entirely different location. To be feasible, development of off-site locations must be able to fulfill the project purpose and meet most of the project's basic objectives. Given the nature of the proposed project (adoption of a General Plan for the entire city), it is not possible to consider an off-site alternative because the city boundaries have been established through incorporation. Further, this alternative would not meet the basic project objectives because consideration of another location would not address issues pertinent to the establishment of land use designations and policies to regulate Palm Desert's orderly development. For this reason, an off-site alternative was considered infeasible pursuant to State CEQA Guidelines Section 15126.6(c) and was rejected as a feasible project alternative.

Alternative locations for key project components, specifically the University Neighborhood Specific Plan and the 111 Corridor Plan, were also rejected from further consideration. The University Neighborhood Specific Plan proposes a new mixed-use community adjacent to the planned campuses for California State University San Bernardino and the University of California, Riverside, on approximately 400 acres. There are no other locations within the city of the size necessary to sustain a new mixed-use community. In addition, any alternative location for the Specific Plan would not be adjacent to the planned university campuses, which would reduce potential for synergy between these compatible and complementary uses. Finally, moving the Specific Plan to an alternative location would leave approximately 400 acres of land adjacent to the planned campuses undeveloped or underdeveloped. Alternative uses on land adjacent to the future campuses would likely not serve university students and employees well, and these campus users would be required to drive farther distances for services, housing, meals, and other uses. Finally, an alternative location would mean that basic project Objective 7, create a mixed-use, mixed-housing walkable neighborhood in the vicinity of the California State University campus, would not be met. Similarly, Objective 1 would not be met to the same extent as the proposed

project, because failing to develop the area in the vicinity of the campuses would be a failure to expand competitiveness, attract new employees to the campuses, and anticipate new demographics (specifically, the new students and employees brought to the area by the planned campuses). Objective 2, which includes enticing the best and brightest students to the city, would not be met to the same extent, as services associated with the new campuses would be developed to a much lesser degree than under the proposed General Plan. Objective 6 would also be met to a lesser extent, because students and employees of the campuses would be forced to drive farther for housing and other services. The need to drive farther would also increase greenhouse gas emissions, worsening the impacts identified in Impact 4.4-1.

Similarly, an alternative location for the downtown concept contemplated by the 111 Corridor Plan is similarly infeasible. The 111 Corridor Plan proposes to develop a walkable downtown by enhancing the existing commercial and residential base. These uses cannot be located elsewhere within the city because the condition does not exist. Finally, an alternative location for the 111 Corridor Plan concept would reduce the project's ability to meet the basic objectives. Specifically, Objective 6, create an authentic, walkable downtown along the Highway 111 corridor, would not be met. In addition, this alternative would not meet Objective 3, allowing for a range of uses that encourage the sense of place, and Objective 8 to create a lively center for residents and visitors to congregate.

Development of Former Golf Courses

The city has several golf courses that are no longer in operation and may no longer be maintained to high standards. The golf courses represent several hundred acres of land in the city limits, and public services and utility access are already present. Development of these areas with residential and commercial uses (i.e., townhomes, apartments, offices, and retail uses) would increase the city's density and intensity, and as a result could reduce the need in other areas of Palm Desert.

The former golf courses are currently surrounded by residential development that was designed to front a golf course. The redevelopment of golf courses therefore would present a design and land use challenge, as the property to be redeveloped often comprises narrow fairways with little to no roadway access. While golf course areas are designed for golf cart and pedestrian access, they typically are not accessible by passenger vehicles or service trucks (e.g., garbage, delivery, and emergency vehicles). Thus, new redevelopment on former golf courses may be constrained by access issues. Similarly, use compatibility, form, massing, orientation, and other design constraints presented by existing development adjacent to the golf courses make redevelopment with residential or commercial uses impractical. Redevelopment of golf courses with nonresidential uses specifically could also result in traffic pattern, noise, light, and other impacts on existing residences.

The proposed General Plan includes policies (see Land Use & Community Character Element Policy 8.10) that encourage the reuse of former golf courses with uses similar to nurseries, boutique agriculture, and open space. These uses would not be as constrained by the unconventional parcel sizes and shapes presented by the former golf courses and would not result in the same types of compatibility issues with existing adjacent residences. Redevelopment of the former golf courses for more conventional agriculture seems unlikely due to the proximity of homes that would be incompatible with agricultural spraying and agricultural-related dust, noise, and odor.

Redevelopment of golf courses with residential and commercial uses would also not reduce the proposed General Plan's significant and unavoidable traffic impacts because traffic would continue to use Interstate 10, and the golf courses are located between Cook Street and the Monterey Avenue interchanges. Impacts relating to cultural resources would be the same as with the proposed General Plan, and transportation impacts to local roadway intersections and segments would be similar or greater than the proposed General Plan. This alternative would also conflict with Objective 3 that encourages a complementary design approach by increasing density and intensity in areas with low-density homes. The filling of open space in these areas would also conflict with Objective 10 that encourages the protection of open space and recreation areas.

For these reasons, the Development of Former Golf Courses Alternative, which would redevelop former golf courses with residential and commercial uses, was rejected on grounds that such an alternative would be infeasible, unreasonable, and not realistic, and the alternative would not substantially reduce the project's significant impacts. This alternative was not analyzed further.

Retrofitting Existing Development to Address Greenhouse Gas Emissions

This alternative considered requiring homes and businesses to meet Title 24 energy standards at time of sale or physical improvement to the property. Impact 4.4-1 in Section 4.4, Greenhouse Gas Emissions, shows that the energy use by the existing city will contribute citywide emissions above the SCAQMD threshold of 6.6 metric tons of CO₂e per service population (residents plus employees) per year in 2020 and 4.1 metric tons of CO₂e per service population per year in 2035. While the proposed project includes numerous programs designed to reduce greenhouse gas emissions, the city's existing conditions (i.e., older buildings, lack of alternative transportation connectivity, and the distance between services and customers) will continue to generate greenhouse gas emissions, even as new, more efficient development comes online over the course of General Plan buildout. As shown in **Table 4.4-4**, when considered alone, new development under the proposed General Plan would be highly efficient, and when considered against service population thresholds, would alone result in a less than significant impact. As also shown in **Table 4.4-4**, it is the consideration of emissions from existing conditions that results in an exceedance of the relevant significance threshold. Therefore, this alternative considered retrofitting existing homes and businesses with solar panels, better insulation, new double-paned windows, and more efficient roofs and HVAC equipment. However, retrofitting of buildings occurs gradually over time as they are refurbished or replaced due to obsolescence or redevelopment. Thus, it is unlikely that the retrofitting of sufficient numbers of existing buildings would occur soon enough to reduce greenhouse gas emissions in 2040 to below the SCAQMD threshold.

Programs to require retrofitting of buildings to bring them to Title 24 California Building Code standards would add considerably to the cost of each building and would be detrimental to affordable housing and business retention, conflicting with Objective 1 that seeks to expand economic competitiveness and attract new employers. In addition, it is unclear whether the City would have the authority to mandate retrofitting of a building for energy efficiency if there was no request for a discretionary permit or entitlement. Finally, this alternative was rejected as infeasible because the City could not bear the cost of upgrading every home to meet Title 24

standards, and there would be no public support for a program that placed the cost of upgrades on homeowners or business owners.

Alternatives Evaluated

For this EIR, two alternatives are evaluated in detail:

- Alternative 1: No Project/Existing (2004) General Plan
- Alternative 2: Decreased Density Alternative

The following discussion analyzes CEQA’s mandatory No Project Alternative as well as a Decreased Density Alternative. CEQA requires that EIRs analyze a reasonable range of alternatives developed to address the significant effects of a proposed project. As summarized earlier, the proposed General Plan results in significant and unavoidable direct and cumulative transportation impacts as a result of conflicts with Caltrans level of service (LOS) performance standards along freeway segments outside of the City’s jurisdiction. The proposed General Plan also results in potentially significant impacts to cultural resources and impacts related to conflicts with local LOS performance standards for local roadway intersections and segments. However, these potentially significant impacts are reduced to less than significant levels with the incorporation of mitigation.

As discussed in more detail below, Alternative 1, No Project Alternative, is a required alternative pursuant to CEQA. Alternative 2, Decreased Density Alternative, was considered to analyze whether a decreased density alternative could reduce the proposed General Plan’s significant and unavoidable transportation-related impacts.

Alternative 1. No Project

This alternative is analyzed in this EIR, as it is required under CEQA Guidelines Section 15126.6(e). According to Section 15126.6(e)(2) of the CEQA Guidelines, the “no project” analysis shall discuss “what is reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.”

This alternative assumes that the proposed General Plan would not be adopted and implemented. Instead, Palm Desert would continue to grow and develop consistent with the existing 2004 General Plan. Alternative 1 would continue to allow for growth because there is sufficient vacant land within the existing General Plan Planning Area to accommodate the city’s projected increase of approximately 11,905 new residents and 13,662 new jobs by 2040. This growth is assumed to occur with or without the proposed project. Alternative 1 assumes that no changes to the 2004 General Plan, including the Land Use Map, Circulation Diagram, goals, policies, or actions, would occur. Alternative 1 also assumes that none of the proposed General Plan elements, including the 111 Corridor Plan (City Center Area Plan) or the University Neighborhood Specific Plan, would be adopted.

Even under the No Project Alternative, it is assumed that, as has been done in the past, the City would continue to update its transportation improvements blueprint and Capital Improvement Program (CIP) based on current available information. These updates would be done even without adoption of the proposed General Plan’s Mobility Element. This is because the City would pursue the same physical improvements with or without an updated Mobility Element.

Alternative 2. Decreased Density

The Decreased Density Alternative reduces the total amount of development potential that would be allowed under the proposed General Plan and was considered to determine whether decreased density would reduce the proposed General Plan's significant and unavoidable transportation-related impacts.

This alternative assumes that the 111 Corridor Plan will not be adopted and implemented along with the proposed project. As a result, the underutilized commercial area along Highway 111 would remain designated for commercial uses and be developed consistent with the 2004 General Plan land use configuration.

This alternative does not reduce the density of the University Neighborhood Specific Plan (UNSP). The City developed the UNSP with the intent of providing a mix of housing product types and densities that could foster a more pedestrian and neighborhood atmosphere to better interact with the university campuses along Cook Street. The UNSP creates a land-use pattern that is more traditionally planned and that provides guidelines for specific types of housing developments and street networks which are harmonious with the students, faculty, and users of the university campuses. By reducing density in this area, the city would be defaulting to a more suburban type of development that is not conducive to creating a pedestrian atmosphere that achieves the goal of embracing the campuses into the fold of the city. The alternative to provide less density in the UNSP area is rejected because it fails to recognize the importance of a California State University within the city limits and the needs of university enrollees and employees. It also fails to create a multimodal transportation system that could reduce vehicle trips between the UNSP area and the university campuses.

In Palm Desert, most portions of Highway 111, including within the 111 Corridor Plan area, have already been improved to the roadway's ultimate six-lane divided standard. However, under this alternative, the circulation, access, parking, landscape, and urban design improvements will not occur as envisioned in the 111 Corridor Plan. While some of the following improvements may occur over time, they would occur without a comprehensive plan or vision.

- Highway 111 – Lane widths will not be reduced to the 10-foot standard, and no bike or pedestrian facilities would be constructed.
- Highway 111 Boulevard Improvements – Reconfigured frontage roads to improve vehicular circulation and pedestrian and bicyclist comfort and safety would not be constructed along Highway 111.
- Downtown District – The Downtown Core Overlay District to facilitate mixed-use development fronting Highway 111, El Paseo, and cross streets, as well as more intense development in certain blocks near San Pablo Street, would not occur.
- San Pablo Avenue – Modifications to the streets to facilitate public and private development based on the proposed street types would not be implemented.

Comparative Impacts of Alternative 1: No Project

Aesthetics

As discussed in detail in Section 4.1, the proposed General Plan would result in less than significant impacts related to scenic vistas and resources, degradation of existing visual character, and creation of new sources of light or glare that would adversely affect nighttime views. Impacts to State Route 74 would be less than significant through implementation of proposed General Plan policies that prevent visual clutter. The proposed General Plan would result in new urban development that would substantially alter views and the visual character, and add new sources of shadow, light, and glare in the Planning Area. However, due to General Plan policies and actions applicable to new development, these impacts would be less than significant. In addition, the proposed General Plan, as well as the University Neighborhood Specific Plan, includes design guidelines that would further ensure visual and aesthetic impacts would remain less than significant.

Alternative 1 would generally have similar effects on the degradation of existing visual character, creation of shadows, and creation of new sources of light or glare to the proposed project. However, under this alternative, the City will continue to enforce the design standards and codes currently in place. Neither the proposed General Plan nor the No Project Alternative will remove or alter existing policies regarding aesthetics. However, Alternative 1 would not include policies such as Environmental Resources Element Policy 2.2, which proposes to minimize the impact on views by restricting new billboards along the city's roads and highways, and Policy 2.1, which proposes to protect and preserve existing, signature views of the hills and mountains from the city. The No Project Alternative would not prevent development and would also not result in the adoption of policies designed to improve the aesthetics of new development. As such, the impact would be greater than that of the proposed project.

[Greater]

Agricultural and Forest Resources

The proposed project would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. In addition, no conflicts with existing zoning for agricultural use or with a Williamson Act contract are expected to occur. The proposed project would also result in no impacts to the loss of forestland or the conversion of forestland to non-forest uses.

Under the No Project Alternative, impacts would be similar to those of the proposed project, as development under the existing General Plan Land Use Map is expected to continue with the same existing conditions. There is no Prime Farmland or Farmland of Statewide Importance in the Planning Area. However, the Planning Area does contain Unique Farmland and Farmland of Local Importance. The land identified as Unique Farmland and Farmland of Local Importance is not currently being used for agricultural uses. Therefore, future development under the existing Land Use Map, as with the proposed project, would not convert any agricultural lands. **[Similar]**

Air Quality

The air quality analysis for the proposed project identified less than significant impacts related to consistency with air quality plans, short-term construction, long-term operations, carbon monoxide hot spots, and odors. No significant and unavoidable impacts were identified.

The No Project Alternative would likely result in similar air quality impacts as compared to the proposed project because the majority of the Planning Area would still be developed in some manner, regardless of the actual land use (similar development area and construction activity). As such, air quality impacts are anticipated to remain less than significant with this alternative. Therefore, impacts would be similar to those of the proposed project. **[Similar]**

Greenhouse Gas Emissions

The proposed project would result in cumulatively considerable greenhouse gas (GHG) emissions that may have a significant impact on the environment. Alternative 1 would result in greater greenhouse gas emissions because the growth anticipated for the city will still occur. However, the plans, designs, and policies included in the proposed project would not be implemented, resulting in less opportunity to reduce emissions. The South Coast Air Quality Management District's GHG significance threshold would still be exceeded. Therefore, impacts would be similar to those of the proposed project. **[Greater]**

Biological Resources

The proposed project would result in less than significant impacts related to special-status species, sensitive biological communities or riparian habitat, jurisdictional wetlands, and movement of native resident or migratory fish or wildlife species or within a migratory corridor. In addition, no conflicts with any local policies or ordinances protecting biological resources were identified.

The existing General Plan lacks some of the specific policies and programs proposed as part of the proposed General Plan requiring consideration of biological resources in development decisions. For example, Environmental Resources Element Policy 3.1 requires new development to comply with the requirements of the Coachella Valley Multi-Species Habitat Conservation Plan (CVMSHCP), which is designed to ensure that impacts to covered special-status species are less than significant. Environmental Resources Element Policy 4.2 would support the creation of local and regional conservation and preservation easements that protect habitat areas, serve as wildlife corridors, and help protect sensitive biological resources. Therefore, without the implementation of a more progressive and updated document, development would still occur as envisioned in the currently adopted General Plan, resulting in biological resources impacts that may be greater than those of the proposed project. **[Greater]**

Cultural Resources

With the incorporation of mitigation measures, implementation of the proposed General Plan would not result in significant impacts to cultural resources. Under Alternative 1, the City would continue to function under the direction of the existing adopted General Plan policies that regulate cultural and paleontological resources. Impacts under Alternative 1 would be comparable to those identified for the proposed project. **[Similar]**

Geology and Soils

Development in the city would not result in significant impacts associated with geology and soils because all future development is required to be designed in compliance with the requirements contained in the California Building Code (CBC), which includes provisions for buildings to structurally survive an earthquake without collapsing and includes measures such as anchoring buildings to the foundation and

structural frame design. In addition, Palm Desert Municipal Code Section 25.28.110 sets development standards and requirements for areas in the Seismic Hazard Overlay District that must be incorporated into development proposals prior to design and construction. All applications for development in the overlay district must submit in-depth geological soils investigation technical studies. Alternative 1 would result in development similar to the proposed project, and such development would also be required to implement CBC design standards and adhere to the City's Municipal Code for seismic design. Therefore, impacts would be comparable to those identified for the proposed project. **[Similar]**

Hazards and Hazardous Materials

Implementation of the proposed project would result in less than significant impacts associated with hazards and hazardous materials. A similar development footprint would still occur under the currently adopted General Plan. Under the existing General Plan, future development projects would still be required to comply with existing federal, state, and local laws and regulations related to hazardous materials transport and use and related to urban fire. Overall impacts under Alternative 1 would be similar to those of the proposed project. **[Similar]**

Hydrology and Water Quality

Development under the proposed project would result in infill development and a slight increase in impervious surfaces in a largely built-out environment. Development under the proposed General Plan would not significantly affect water quality or flooding potential and hazards. Compliance with the existing General Plan and enforcement of existing regulations would result in similar water quality and flood hazard impacts, including impacts related to flooding and seiche or mudflow. Alternative 1 would allow for a similar development footprint as under the proposed General Plan, resulting in similar impacts related to stormwater flows (including erosion and flooding) and groundwater recharge. However, the existing General Plan lacks some of the specific policies and programs requiring consideration of hydrology and water quality in development decisions. Therefore, without the implementation of a more progressive and updated document, development would still occur as envisioned in the currently adopted General Plan, resulting in hydrology and water quality impacts that may be greater than those of the proposed project. **[Greater]**

Land Use and Planning

No significant land use impacts associated with the proposed General Plan are expected to occur. Under the No Project Alternative, the City would continue to function under the direction of the existing ordinances and in accordance with the land use designations of the existing General Plan. Development would occur in accordance with the existing General Plan. As with the proposed project, with implementation of the goals and policies of the existing General Plan Land Use Element, it is not anticipated that significant land use incompatibility issues would occur. **[Similar]**

Mineral Resources

The entirety of Palm Desert is classified as Mineral Resource Zone 3 (MRZ-3) under the California Mineral Land Classification System. In MRZ-3 areas, mineral resources are present, but the significance of the resource is considered speculative because no mining has historically occurred in the area. Impacts are reduced to less than

significant levels in compliance with local, state, and federal regulations. Similarly, with the No Project Alternative, impacts are anticipated to be the same as those of the proposed project due to a development potential with a similar footprint, although not necessarily with the same intensity and density. In addition, future development would be required to comply with the same regulations to reduce impacts to mineral resources. *[Similar]*

Noise

The proposed project would have less than significant impacts related to construction noise, traffic noise, rail noise, aircraft noise, construction vibration, and vibration associated with the operation of new land uses. The No Project Alternative would likely result in similar noise impacts as compared to the proposed project, as the majority of sites would still be developed under the currently adopted General Plan. *[Similar]*

Population, Employment, and Housing

Implementation of the proposed project would have less than significant impacts related to inducement of population growth and displacement of people or housing. Because growth potential is consistent for the city and could occur under either the proposed project or this alternative, as projected by the Southern California Association of Governments (SCAG), impacts would be similar to the proposed project. The land use concept in the updated General Plan has been developed to accommodate projected population increases and make sure Palm Desert is strategically positioned to manage future growth and to capture positive growth opportunities. The proposed Land Use Map and policy orientation of the updated General Plan seek to make efficient and appropriate use of land. *[Similar]*

Public Services and Utilities

The proposed project would not result in significant impacts to public services and utilities. Under Alternative 1, existing General Plan policies would apply and development would continue to increase, putting additional demand on public services, schools, and utilities and service systems. Although more development intensity and density is anticipated in association with the proposed General Plan, specifically the 111 Corridor Plan and the University Neighborhood Specific Plan, retaining the existing General Plan Land Use Map would still result in the need for the provision of water, wastewater, and sewer services in areas that are currently vacant. Additional police and fire services would be still required to accommodate growth. As such, ultimate buildout of the existing General Plan would result in similar demands on public services and utilities. *[Similar]*

Transportation

The proposed project would have significant and unavoidable impacts due to conflicts with Caltrans LOS Performance Standards along certain freeway segments. The segments of Interstate 10 forming the northern city boundary will perform below the Caltrans threshold in the Buildout (2040) scenario. As discussed in Section 4.15 in detail, mitigating the identified impacts to these segments is infeasible and would require complete reconstruction of the freeway and additional travel lanes. Since freeways are an interconnected system, it would not be possible or effective to provide isolated spot improvements of one segment of the freeway where deficient operations are observed. Furthermore, the facilities are not controlled by the City of

Palm Desert. All other traffic-related impacts, including the Level of Service (LOS) Performance Standard, performance standards of adjacent jurisdictions, air traffic patterns, emergency access, and expansion of public transit, bicycle, and pedestrian facilities, would result in less than significant impacts after the incorporation of mitigation.

The No Project Alternative would also result in significant transportation impacts along these freeway segments. For the same reasons outlined in Section 4.15, impacts to these freeway segments would not and could not be reduced or eliminated under the No Project Alternative.

Additionally, although it is difficult to specifically determine uses that would be developed under the No Project Alternative, and therefore the degree of impact related traffic would have on area roadways and intersections, it is anticipated that considering the highest and best use of the property, this alternative would generate additional daily vehicle trips above the number generated with the proposed project. Even though development associated with this alternative would be subject to similar requirements to reduce potential impacts, including the requirement to participate in the funding of off-site improvements, the existing General Plan lacks the comprehensive transportation strategy including all modes of transportation that is proposed with the project. While the amount of growth may be similar, the lack of a transportation strategy designed to reduce vehicle miles traveled and encourage non-motorized transportation could result in more traffic impacts at some locations. For these reasons, impacts relative to traffic are considered to be greater with this alternative than with the proposed project. The No Project Alternative does not eliminate or substantially reduce the proposed General Plan's significant and unavoidable transportation impacts. *[Greater]*

Project Objectives Summary

As shown in **Table 6.0-2**, the No Project Alternative has the potential to meet some, but not most, of the basic project objectives. Specifically, the No Project Alternative has the potential to meet Objectives 1, 2, 4, 7, and 10 because the existing General Plan offers some policies that would encourage community attractiveness and businesses. Palm Desert will remain a beautiful city attracting visitors for recreation as well as new residents. However, in contrast, the No Project Alternative would not meet the remaining objectives. Specifically, Objectives 3, 6, and 8 would not be met because the current land use pattern does not recognize the Highway 111 corridor as a destination for entertainment and as a model of walkability. Objectives 5 and 9 would not be met because the proposed project includes a comprehensive and complementary transportation plan that recognizes all forms of transportation and moves away from the vehicle-centric model of the existing General Plan.

Comparative Impacts of Alternative 2: Decreased Density Alternative

Aesthetics

The proposed General Plan would result in less than significant impacts to aesthetics and visual resources. Under Alternative 2, less intensive development would be allowed than under the proposed General Plan. Because the 111 Corridor Plan would not be adopted as part of this alternative, fewer views along the Highway 111 corridor would likely be blocked as a result of building height or proximity to adjacent

development. Depending on the intensity of development, fewer view corridors could be blocked between buildings, resulting in less obstruction of views. Light and glare impacts associated with development of vacant land would be less than with the proposed project. **[Similar]**

Agricultural and Forest Resources

The proposed project would result in less than significant impacts to agricultural land conversion. This alternative would also distribute land uses and density throughout an existing urban area. Because this alternative would intensify land uses already committed to urban uses, it would have the same impact on agricultural land use as the proposed project. **[Similar]**

Air Quality

The air quality analysis for the proposed project identified less than significant impacts related to consistency with air quality plans, short-term construction, long-term operations, carbon monoxide hot spots, and odors. No significant and unavoidable impacts were identified.

Under the Reduced Density Alternative, improvements along Highway 111 that would help to reduce vehicle miles traveled would not be implemented such as mixed-use development. Two major improvements along Highway 111—reducing lane widths to the 10-foot standard in order to construct bike or pedestrian facilities and reconfiguring frontage roads to improve vehicular circulation and pedestrian and bicyclist comfort—might not occur. These urban design elements facilitate the use of alternative transportation in the 111 Corridor Plan area, helping to reduce vehicle miles traveled. While without the implementation of the urban design elements included in the 111 Corridor Plan, air quality impacts would be slightly greater than those of the proposed project because residents would need to travel farther for services and entertainment, the policies in the remainder of the proposed General Plan, including the details in the Mobility Element, would result in overall transportation system improvements similar to those of the proposed project.

[Greater]

Greenhouse Gas Emissions

The proposed project would result in cumulatively considerable GHG emissions that may have a significant impact on the environment. Alternative 2 would result in lower-density residential and mixed-use development, which would increase vehicle miles traveled and associated GHG emissions. However, once implemented, this alternative would still result in similar impacts to those of the proposed project. Goals, policies, and action plans set forth in the proposed project would help to reduce air quality impacts. However, it is not possible to ensure that they will result in a reduction of emissions impacts based on the current high pollutant concentrations in the region. As such, this alternative would still result in cumulatively considerable greenhouse gas impacts. **[Similar]**

Biological Resources

The biological resources analysis determined that the proposed project would result in less than significant impacts related to special-status species, sensitive biological communities or riparian habitat, jurisdictional wetlands, and movement of native resident or migratory fish or wildlife species or within a migratory corridor. In addition, no conflicts with any local policies or ordinances protecting biological resources were

identified. Although intensity and density would vary along the Highway 111 corridor, Alternative 2 would result in similar impacts as those described for the proposed project due to a similar overall project footprint. In addition, the same policies as in the proposed project would also apply under this alternative, helping to reduce impacts to biological resources. **[Similar]**

Cultural Resources

With the incorporation of mitigation measures, implementation of the proposed General Plan would not result in significant impacts to cultural resources. Impacts related to cultural resources would largely be a function of the location and not the density of development; therefore, this alternative's impacts would be similar to those identified for the proposed project. The same policies and mitigation measures as in the proposed project would also apply under this alternative. It is the intent of the proposed project that development conducted pursuant to the General Plan will mitigate all significant impacts on cultural and archaeological resources. **[Similar]**

Geology and Soils

Implementation of the proposed project would not result in significant impacts to geology and soils. Reducing the proposed project's density and removing the 111 Corridor Plan from the proposed General Plan would not wholly preclude any additional development from occurring along Highway 111. The potential reduction in intensity and density of development would not result in substantially fewer impacts to geology and soils when compared with the project. In fact, future development under the Decreased Density Alternative would be subject to the same General Plan policies and local and state regulations (i.e., the CBC) and therefore impacts would be less than significant. Therefore, similar impacts to geology and soils would occur under this alternative as under the proposed project. **[Similar]**

Hazards and Hazardous Materials

The risk of exposure to hazards under Alternative 2 may be less than that described for the proposed project. Even though the development footprint of the proposed General Plan and Alternative 2 would be similar or identical, given that Alternative 2 will result in less dense development, there may be a very small reduction in the potential for hazardous materials exposure. However, the same goals and policies as in the proposed General Plan would apply to this alternative. **[Similar]**

Hydrology and Water Quality

The proposed project would not result in significant impacts to hydrology and water quality, either by impacting the groundwater aquifer underlying the city or by increasing demand for water supply and thus requiring increased groundwater production. As with the proposed project, Alternative 2 would also increase the amount of impervious surface area and result in an increased demand for water supply. However, the goals, policies, and action items proposed in the General Plan would also apply under this alternative and impacts would be less than significant. **[Similar]**

Land Use and Planning

This alternative would result in less density and intensity along the Highway 111 corridor; however, with the exception of some vacant parcels, the area along the highway is largely built out with commercial uses. The land use envisioned under the

current General Plan for the corridor would nonetheless result in additional land use intensification in this area, just not to the extent allowed and encouraged under the proposed General Plan. Alternative 2 assumes that the majority of proposed land uses would be consistent with the General Plan land use designations. The risk of established communities being divided or changed significantly in a negative way would be similar to the possibility with the proposed General Plan because the same policies and action items would apply under this alternative to improve not only connectivity but compatibility between existing and future development. A primary goal of the proposed project is to retain the city's current character, and a number of policies address consistency of new development with existing developments through the use of materials, siting, and other design techniques (see Land Use & Community Character Element Policies 1.1, 3.4, 3.16, 3.17, 3.18, and 4.6). These same policies would apply under Alternative 2; therefore, impacts would be similar to those of the proposed General Plan. **[Similar]**

Mineral Resources

While this alternative proposes less development than the proposed General Plan, which includes the 111 Corridor Plan, there is no less potential for impacts between mineral resource excavation uses and other land uses developed. As with the proposed project, future site-specific project development under this alternative will be required to comply with applicable local, state, and federal regulations. These regulations would maintain the availability of mineral resources while continuing to encourage proper reclamation and enhancement of areas impacted by extractive and mining activities for the public's health, safety and welfare. Therefore, implementation of this alternative would also ensure that future development in the city would not have any significant adverse impacts on mineral resources, nor would future mineral resource extraction have any significant adverse impacts on future development.

[Similar]

Noise

Under this alternative, noise related to construction and vehicle traffic would continue to contribute to the local noise environment. Increased development has the potential to result in temporary construction noise received by existing nearby residents. This impact is similar to that of the proposed project and would be subject to the same noise policies, such as Noise Element Policy 2.2 requiring that noise impacts from construction activities and private development are minimized. Aside from the intensity and density of development along the Highway 111 corridor, development overall would be comparable to that with the proposed project. Therefore, overall noise impacts from this alternative are considered similar to those of the proposed project. **[Similar]**

Population, Employment, and Housing

Implementation of the proposed project would have less than significant impacts related to inducement of population growth and displacement of people or housing. Under the proposed project, impacts associated with population are nearly identical to the proposed land use concept because growth potential under either scenario is consistent with that projected by SCAG. The land use concept in the updated General Plan has been developed to accommodate projected population increases and make sure Palm Desert is strategically positioned to manage future growth and to capture

positive growth opportunities. The proposed Land Use Map and policy orientation of the updated General Plan seek to make efficient and appropriate use of land.

Similar to the No Project Alternative, Alternative 2 would result in less growth potential than the proposed General Plan. However, population increase is not in and of itself an environmental impact. However, growth that cannot be accommodated could result in physical impacts to air quality, traffic, noise, public services, utilities, recreation, etc. Alternative 2 would, like the proposed General Plan, result in growth inducement, but to a lesser extent. **[Lesser]**

Public Services and Utilities

The proposed project would not result in significant impacts to public services and utilities. Similarly, Alternative 2 is not expected to result in less of a need for public services. While the density and intensity of development may decrease under this alternative, because the Highway 111 corridor is largely built out, water, wastewater, and sewer services already exist along the corridor. Similarly, impacts to police and fire services under Alternative 2 are similar to impacts under the proposed project. As with the proposed project, development as a result of Alternative 2 would be subject to the same requirements to address impacts on public services and utilities. Overall, the impacts to public services from this alternative are considered similar to those of the proposed project. **[Similar]**

Transportation

The proposed project would have significant and unavoidable impacts due to conflicts with Caltrans LOS Performance Standards along certain freeway segments. The segments of Interstate 10 forming the northern city boundary will perform unacceptably in the Buildout (2040) scenario. Mitigation of this impact is infeasible, as it would require complete reconstruction of the freeway and additional travel lanes. Since freeways are an interconnected system, it would not be possible or effective to provide isolated spot improvements of one segment of the freeway where deficient operations are observed. Furthermore, the facilities are not controlled by the City of Palm Desert. All other traffic-related impacts, including to the local LOS Performance Standard, performance standards of adjacent jurisdictions, air traffic patterns, emergency access, and expansion of public transit, bicycle, and pedestrian facilities, would result in less than significant impacts after the incorporation of mitigation.

The Decreased Density Alternative would keep the circulation policies of the currently adopted General Plan intact. The proposed General Plan includes policies encouraging an active pedestrian environment, human-scale design, and an emphasis on accessibility for public transit, which would also apply under Alternative 2. These policies enhance future development potential and are intended to reduce vehicle miles traveled and encourage more nonmotorized transportation, particularly in the 111 Corridor Plan area and in the University Neighborhood Specific Plan area. However, removing the 111 Corridor Plan component from the proposed project would reduce the need to reconfigure the area to the degree proposed with the project because the area would result in less intense and dense development. Overall, trip generation along Highway 111 may be slightly reduced as a result of less dense development along the corridor under this alternative. Regardless, however, the significant and unavoidable impacts to the Interstate 10 freeway segments remain significant and unavoidable, even under this alternative, and the impacts are not substantially lessened. **[Lesser]**

Project Objectives Summary

As shown in **Table 6.0-2**, the Decreased Density Alternative would achieve almost all of the project objectives because, with the exception of the 111 Corridor Plan not being a part of project components, all other project features would remain. The only objective this project does not meet is Objective 5, creating an authentic walkable downtown along the Highway 111 corridor. The alternative would not meet the intent of Objective 2 to demonstrate how an existing part of the community can be developed to entice new investment. The Decreased Density Alternative also does not meet Objective 8 in creating lively centers for residents and visitors to congregate throughout the city. By reducing the density along the Highway 111 corridor, however, the alternative does not address either the greenhouse gas impacts or the transportation impacts identified as significant and unavoidable in the EIR.

Table 6.0-2 Comparison of Project Objectives

Project Objectives	Proposed Project	Alternative 1: No Project/Existing General Plan	Alternative 2: Decreased Density Alternative
Anticipate new demographics and market trends to expand economic competitiveness and attract new employers.	✓	✓	✓
Continue to serve as a destination that entices visitors and to endure as a community with a high quality of life that attracts the best and the brightest residents, students, and businesses.	✓	✓	✓
Create a greater range of development patterns to offer existing and future residents additional options for the types of place they live in, maintaining a moderate density and scale: just enough to create interest and activity, but not so much as to overwhelm people and not so little as to dilute the sense of place or inhibit walking and bicycling.	✓		✓
Create safe and comfortable places for pedestrians with convenient, safe, and easy street crossings and convenient, close access to buildings.	✓	✓	✓
Reduce automobile dependence through enhanced active transportation options.	✓		✓

Table 6.0-2, continued

Project Objectives	Proposed Project	Alternative 1: No Project/Existing General Plan	Alternative 2: Decreased Density Alternative
Create an authentic, walkable downtown along the Highway 111 corridor.	✓		
Create a mixed-use, mixed-housing walkable neighborhood in the vicinity of the California State University campus.	✓	✓	✓
Create lively centers for residents and visitors to congregate throughout the city.	✓		✓
Create a layered transportation network that will expand transportation opportunities for walking, bicycling, and transit, while recognizing the importance of the automobile, to expand access to the city and throughout the city.	✓		✓
Maintain the city's unique geographic setting by protecting existing open space and expanding the types of open space and recreational areas within the city.	✓	✓	✓

Comparison of the Alternatives

In the following discussion, impacts for those issue areas resulting in greater or lesser impacts than the proposed project are summarized describing how impacts for each alternative would differ from the project, including whether any significant impacts would be reduced or avoided and whether any new significant impacts would result.

Table 6.0-3 compares the impacts for each environmental topic area against the proposed project.

Table 6.0-3 Comparison of Environmental Impacts of Alternatives to the Proposed Project

Environmental Topic	Proposed Project Impact Finding (Mitigated)	Alternative 1: No Project/Existing General Plan	Alternative 2: Decreased Density
Aesthetics	LTS	+	=
Agricultural and Forest Resources	LTS	=	=
Air Quality	LTS	=	+
GHG Emissions	SU	+	=
Biological Resources	LTS	+	=
Cultural Resources	LTS	=	=
Geology and Soils	LTS	=	=
Hazards and Hazardous Materials	LTS	=	=
Hydrology and Water Quality	LTS	+	=
Land Use and Planning	LTS	=	=
Mineral Resources	LTS	=	=
Noise	LTS	=	=
Population, Employment, and Housing	LTS	=	-
Public Services and Utilities	LTS	=	=
Transportation	SU	+	-
Overall		+	-

SU = Significant and Unavoidable

LTS = Less Than Significant

= Level of significance is similar to the proposed project.

+ Level of significance is greater than the proposed project.

- Level of significance is less than the proposed project, but the impact is not necessarily reduced to a less than significant level.

Environmentally Superior Alternative

CEQA requires that EIRs identify the environmentally superior alternative. **Table 6.0-3** summarizes the potential impacts of the alternatives evaluated in this section as compared to the potential impacts of the proposed project. As demonstrated in Sections 4.1 through 4.15 of this EIR, the project would result in significant and unavoidable impacts with regard to greenhouse gases and transportation.

As shown in **Table 6.0-3** and summarized above, impacts resulting from the No Project Alternative would be largely similar to or greater than those of the proposed project. However, Alternative 2, the Decreased Density Alternative, would result in slightly fewer impacts than the proposed project with reduced impacts related to transportation, thereby making it environmentally superior to the proposed project with regard to this issue area. Therefore, Alternative 2 is considered the environmentally superior alternative. However, while Alternative 2 may reduce traffic impacts slightly due to reduced overall development, this reduction would be relatively small. The impacts related to Caltrans LOS Performance Standards would remain significant and unavoidable, and they would not be substantially reduced with Alternative 2.

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