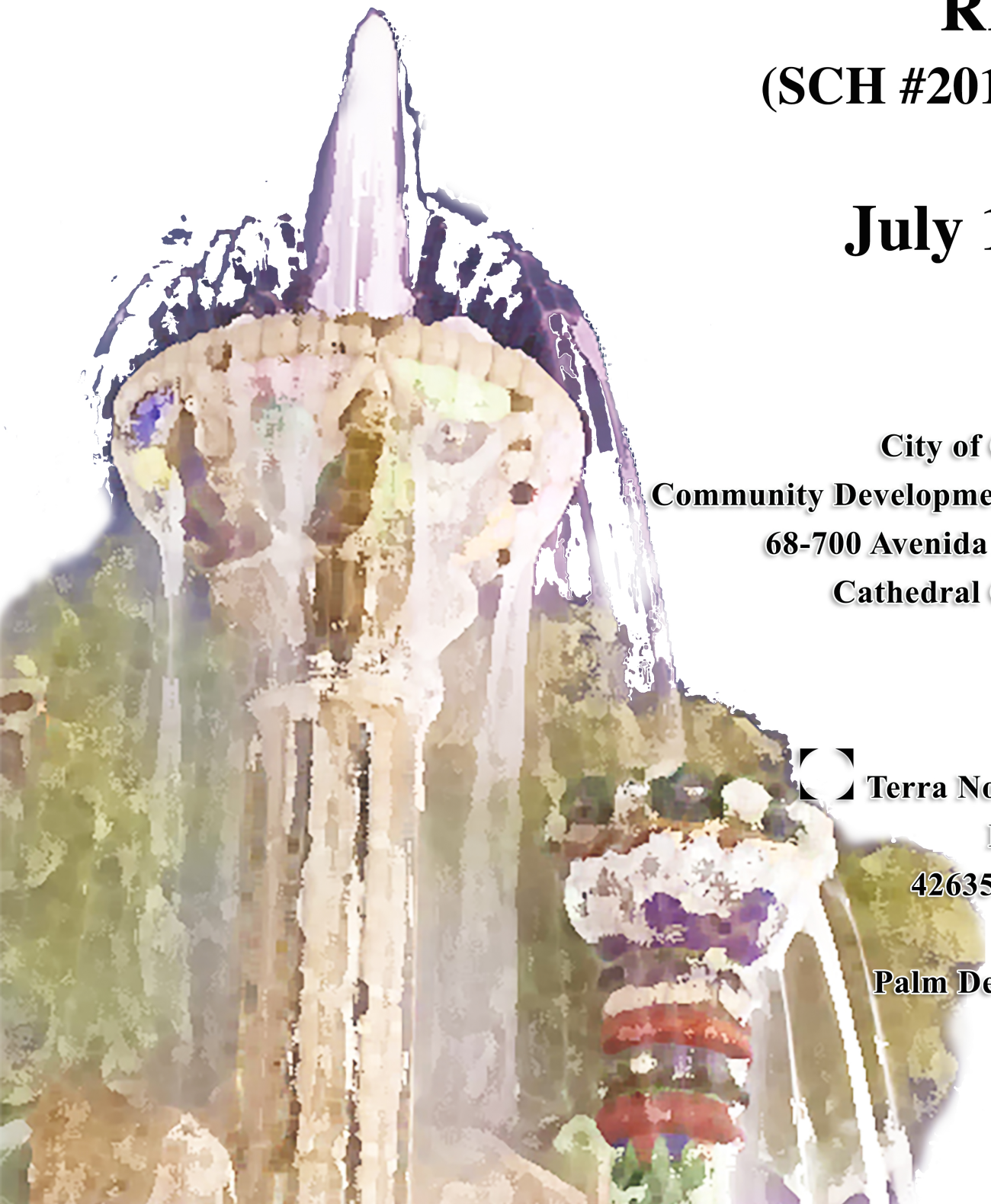
CITY OF CATHEDRAL CITY

DRAFT ENVIRONMENTAL IMPACT REPORT

(SCH #2018081012)

July 15, 2019



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Cathedral City Imagine 2040
General Plan Update

Draft Environmental Impact Report
(SCH #2018081012)

Table of Contents

		Page No.
List of Exhibits		vi
List of Tables		vii
List of Charts		ix
List of Appendices		ix
Executive Summary		ES-1
Environmental Summary Matrix		M-1
1.0	**INTRODUCTION AND PROJECT DESCRIPTION**	**1-1**
1.1	Introduction	1-1
1.2	Project Location And Limits	1-2
1.3	Purpose And Need	1-3
1.4	Statement Of Project Objectives	1-3
1.5	Project Summary: 2040 General Plan Update	1-4
1.6	CEQA Process	1-9
1.6.1	Notice Of Preparation And Public Scoping Meeting	1-9
1.6.2	Draft EIR	1-10
1.6.3	Final EIR	1-10
1.6.4	Mitigation Monitoring And Reporting	1-10
1.6.5	Organization Of The Draft EIR	1-10
1.7	Responsible Agencies	1-12
1.8	Project's Relationship To Other Plans	1-12
1.9	Proposed Project	1-12
2.	**ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES**	**2.1**
2.1	**Introduction**	**2.1-1**
2.1.1	Summary of Environmental Impact Analysis	
2.2	**Aesthetics**	**2.2-2**
2.2.1	Introduction	
2.2.2	Thresholds of Significance	
2.2.3	Regulatory Framework	
2.2.4	Regional Environmental Setting	
2.2.5	Existing Conditions	
2.2.6	Project Impacts	
2.2.7	Mitigation Measures	
2.2.8	Significance After Mitigation	
2.2.9	Cumulative Impacts	

2.3 Agriculture and Forestry Resources **2.3-1**
2.3.1 Introduction
2.3.2 Thresholds of Significance
2.3.3 Regulatory Framework
2.3.4 Regional Environmental Setting
2.3.5 Existing Conditions
2.3.6 Project Impacts
2.3.7 Mitigation Measures
2.3.8 Significance After Mitigation
2.3.9 Cumulative Impacts

2.4 Air Quality and Greenhouse Gases **2.4-1**
2.4.1 Introduction
2.4.2 Thresholds of Significance
2.4.3 Regulatory Framework
2.4.4 Environmental Setting
2.4.5 Existing Conditions
2.4.6 Project Impacts
2.4.7 Mitigation Measures
2.4.8 Significance After Mitigation
2.4.9 Cumulative Impacts

2.5 Biological Resources **2.5-1**
2.5.1 Introduction
2.5.2 Thresholds of Significance
2.5.3 Regulatory Framework
2.5.4 Regional Environmental Setting
2.5.5 Existing Conditions
2.5.6 Project Impacts
2.5.7 Mitigation Measures
2.5.8 Significance After Mitigation
2.5.9 Cumulative Impacts

2.6 Cultural Resources and Tribal Resources **2.6-1**
2.6.1 Introduction
2.6.2 Thresholds of Significance
2.6.3 Regulatory Framework
2.6.4 Regional Environmental Setting
2.6.5 Existing Conditions
2.6.6 Project Impacts
2.6.7 Mitigation Measures
2.6.8 Significance After Mitigation
2.6.9 Cumulative Impacts

2.7 Energy and Mineral Resources **2.7-1**
2.7.1 Introduction
2.7.2 Thresholds of Significance
2.7.3 Regulatory Framework
2.7.4 Regional Environmental Setting
2.7.5 Existing Conditions

2.7.6 Project Impacts
2.7.7 Mitigation Measures
2.7.8 Significance After Mitigation
2.7.9 Cumulative Impacts

2.8 Geology and Soils **2.8-1**
2.8.1 Introduction
2.8.2 Thresholds of Significance
2.8.3 Regulatory Framework
2.8.4 Regional Environmental Setting
2.8.5 Existing Conditions
2.8.6 Project Impacts
2.8.7 Mitigation Measures
2.8.8 Significance After Mitigation
2.8.9 Cumulative Impacts

2.9 Hazards, Hazardous Materials and Wildfires **2.9-1**
2.9.1 Introduction
2.9.2 Thresholds of Significance
2.9.3 Regulatory Framework
2.9.4 Regional Environmental Setting
2.9.5 Existing Conditions
2.9.6 Project Impacts
2.9.7 Mitigation Measures
2.9.8 Significance After Mitigation
2.9.9 Cumulative Impacts

2.10 Hydrology and Water Quality **2.10-1**
2.10.1 Introduction
2.10.2 Thresholds of Significance
2.10.3 Regulatory Framework
2.10.4 Regional Environmental Setting
2.10.5 Existing Conditions
2.10.6 Project Impacts
2.10.7 Mitigation Measures
2.10.8 Significance After Mitigation
2.10.9 Cumulative Impacts

2.11 Land Use and Planning **2.11-1**
2.11.1 Introduction
2.11.2 Thresholds of Significance
2.11.3 Regulatory Framework
2.11.4 Regional Environmental Setting
2.11.5 Existing Conditions
2.11.6 Project Impacts
2.11.7 Mitigation Measures
2.11.8 Significance After Mitigation
2.11.9 Cumulative Impacts

2.12 Noise **2.12-1**
2.12.1 Introduction
2.12.2 Thresholds of Significance
2.12.3 Regulatory Framework
2.12.4 Regional Environmental Setting
2.12.5 Existing Conditions
2.12.6 Project Impacts
2.12.7 Mitigation Measures
2.12.8 Significance After Mitigation
2.12.9 Cumulative Impacts

2.13 Parks and Recreational Resources **2.13-1**
2.13.1 Introduction
2.13.2 Thresholds of Significance
2.13.3 Regulatory Framework
2.13.4 Regional Environmental Setting
2.13.5 Existing Conditions
2.13.6 Project Impacts
2.13.7 Mitigation Measures
2.13.8 Significance After Mitigation
2.13.9 Cumulative Impacts

2.14 Population, Housing and Socio-Economic Resources, **2.14-1**
2.14.1 Introduction
2.14.2 Thresholds of Significance
2.14.3 Regulatory Framework
2.14.4 Regional Environmental Setting
2.14.5 Existing Conditions
2.14.6 Project Impacts
2.14.7 Mitigation Measures
2.14.8 Significance After Mitigation
2.14.9 Cumulative Impacts

2.15 Public Utilities and Service Systems **2.15-1**
2.15.1 Introduction
2.15.2 Thresholds of Significance
2.15.3 Regulatory Framework
2.15.4 Regional Environmental Setting
2.15.5 Existing Conditions
2.15.6 Project Impacts
2.15.7 Mitigation Measures
2.15.8 Significance After Mitigation
2.15.9 Cumulative Impacts

2.16 Transportation **2.16-1**
2.16.1 Introduction
2.16.2 Thresholds of Significance
2.16.3 Regulatory Framework
2.16.4 Regional Environmental Setting
2.16.5 Existing Conditions
2.16.6 Project Impacts

2.16.7 Mitigation Measures
2.16.8 Significance After Mitigation
2.16.9 Cumulative Impacts

3. PROJECT ALTERNATIVES ANALYSIS 3.1

3.1 Introduction 3.1-1
3.1.1 Statement of Project Objectives 3.1-2
3.1.2 Summary of Alternatives 3.1-3
3.1.3 Alternative 1: More Intense Alternative 3.1-3
3.1.4 Alternative 2: Less Intense Alternative 3.1-6
3.1.5 Alternative 3: No Project Alternative 3.1-9
3.1.6 Alternatives Considered but Not Further Analyzed 3.1-12
3.2 Aesthetics 3.2-1
3.3 Agriculture and Forestry Resources 3.3-1
3.4 Air Quality and Greenhouse Gases 3.4-1
3.5 Biological Resources 3.5-1
3.6 Cultural and Tribal Resources 3.6-1
3.7 Energy and Mineral Resources 3.7-1
3.8 Geology and Soils 3.8-1
3.9 Hazards, Hazardous Materials and Wildfires 3.9-1
3.10 Hydrology and Water Quality 3.10-1
3.11 Land Use and Planning 3.11-1
3.12 Noise 3.12-1
3.13 Parks and Recreation 3.13-1
3.14 Population, Housing and Socio-Economic Resources 3.14-1
3.15 Public Utility and Service Systems 3.15-1
3.16 Transportation 3.16-1
3.17 Conclusion and Overall Environmentally Superior Alternative 3.17-1

4. UNAVOIDABLE SIGNIFICANT IMPACTS 4-1

5. IRREVERSIBLE COMMITMENT OF RESOURCES 5-1

6. GROWTH INDUCING IMPACTS 6-1

7. SHORT-TERM USE VERSUS LONG TERM PRODUCTIVITY 7-1

8. ORGANIZATIONS, PERSONS AND DOCUMENTS CONSULTED 8-1

List of Exhibits

Exhibit 1-1 Regional Location Map 1-5
Exhibit 1-2 Area Location Map 1-6
Exhibit 1-3 Project Vicinity Aerial 1-7
Exhibit 1-4 Project Planning Area: 1-8
Exhibit 1-5 Proposed General Plan Land Use Map 1-20
Exhibit 1-6 Active Transportation Plan - Multi-Modal Facilities 1-22

Exhibit 2.5-1	CVMSHCP Natural Communities Map	2.5-9
Exhibit 2.5-2	CVMSHCP Biological Resources Map North	2.5-12
Exhibit 2.5-3	CVMSHCP Biological Resources Map South	2.5-13
Exhibit 2.6-1	Culturally Sensitive Areas	2.6-8
Exhibit 2.8-1	Rock Fall & Landslide Susceptibility Map	2.7-8
Exhibit 2.8-2	Wind Hazards Map	2.7-9
Exhibit 2.8-3	Earthquake Fault Map	2.7-12
Exhibit 2.8-4	Liquefaction Susceptibility Map	2.7-16
Exhibit 2.8-5	Susceptibility to Seismically Induced Settlement	2.7-17
Exhibit 2.9-1	Fire Hazard Severity Zones	2.9-14
Exhibit 2.10-1	FEMA Flood Zones	2.10-14
Exhibit 2.11-1	City Limits and Sphere of Influence	2.11-6
Exhibit 2.11-2	Current General Plan Land Use Map	2.11-7
Exhibit 2.11-3	Proposed General Plan Land Use Map	2.11-9
Exhibit 2.11-3	Airport Land Use Compatibility Map	2.11-11
Exhibit 2.12-1	Noise Monitoring Sites	2.12-7
Exhibit 2.12-2	2040 Roadway and Railroad Noise Contours	2.12-9
Exhibit 2.12-3	Palm Springs International Airport Noise Contours 2025	2.12-10
Exhibit 2.16-1	Existing ADT Volumes	2.16-6
Exhibit 2.16-2	Existing and Future Multi-Modal Facilities	2.16-13
Exhibit 2.16-3	Existing and Future Pedestrian Facilities	2.16-14
Exhibit 2.16-4	Sunline Transit Routes and Bus Stops	2.16-15
Exhibit 2.16-5	Existing and Future Truck Routes	2.16-16
Exhibit 2.16-6	Master Roadway Classifications	2.16-19
Exhibit 2.16-7	2040 Buildout ADT Volumes	2.16-20
Exhibit 3-1	Land Use Alternative 1 – More Intense	3.14
Exhibit 3-2	Land Use Alternative 2 – Less Intense	3.17
Exhibit 3-3	Alternative 3 - No Project Alternative (Existing Land Use)	3.11

List of Tables

Table M-1	Summary of Impacts and Mitigation Measures	M-1
Table 1-1	City of Cathedral City Draft General Plan Proposed Land Use Designations	1-13
Table 1-2	Cathedral City General Plan (2018) Proposed Land Use Table	1-21
Table 2.4-1	State and National Ambient Air Quality Standards	2.4-3
Table 2.4-2	Emissions Thresholds for SCAQMD	2.4-4
Table 2.4-3	Salton Sea Air Basin Designation Status	2.4-12
Table 2.4-4	Operational Emissions Summary Existing vs. Proposed Land Use (lbs./day)	2.4-15
Table 2.4-5	2040 Operational GHG Emission Comparison (Metric Tons/Year)	2.4-18

Table 2.5-1	Sensitive Communities and Species Occurring or Potentially Occurring in the Cathedral City Study Area	2.5-10
Table 2.6-1	Sites of Cahuilla Cultural Value in the Cathedral City Area	2.6-7
Table 2.6-2	Recorded Historic-Era Buildings in the Planning Area	2.6-9
Table 2.7-1	Mix of Conventional and Renewable Energy In California (2018)	2.7-7
Table 2.7-2	Energy Consumption Factors	2.7-11
Table 2.7-3	Annual Electricity Demand at General Plan Buildout	2.7-11
Table 2.7-4	Annual Natural Gas Demand at General Plan Buildout	2.7-12
Table 2.7-5	Annual Fuel Demand at General Plan Buildout	2.7-12
Table 2.8-1	Potential Seismic Intensities Associated with the Maximum Credible Earthquake (MCE)	2.8-13
Table 2.10-1	Total Recent and Projected Water Deliveries in CVWD Service Area by Land Use	2.10-11
Table 2.10-2	Total Recent and Projected Water Deliveries in DWA Service Area by Land Use	2.10-12
Table 2.10-3	Coachella Valley Water District's Water Shortage Contingency Plan Summary	2.10-16
Table 2.10-4	Desert Water Agency's Water Shortage Contingency Plan Summary	2.10-16
Table 2.11-1	Cathedral City General Plan (2018) Existing Land Use Table	2.11-8
Table 2.11-2	Cathedral City General Plan (2018) Proposed Land Use	2.11-10
Table 2.12-1	Typical Noise Levels	2.12-5
Table 2.12-2	24-Hour Long-Term Ambient Noise Levels	2.12-6
Table 2.12-3	Roadway Noise Levels in 2040	2.12-12
Table 2.13-1	Standards for Park Areas	2.13-2
Table 2.13-2	City of Cathedral City Parks Inventory	2.13-3
Table 2.13-3	City of Cathedral Undeveloped Park Land	2.13-4
Table 2.13-4	City of Cathedral Existing Bikeways	2.13-6
Table 2.13-5	Cathedral City Active Transportation Plan (2019) Proposed Bikeways and Shared Low Speed Routes	2.13-7
Table 2.14-1	Cathedral City Housing Characteristics	2.14-6
Table 2.14-2	Cathedral City Housing Tenure	2.14-6
Table 2.14-3	Cathedral City Employment by Industry	2.14-7
Table 2.14-4	Projected Housing Units at General Plan Buildout	2.14-8
Table 2.14-5	Projected Population at General Plan Buildout	2.14-9
Table 2.15-1	PSUSD Student Generation Factors	2.15-10
Table 2.15-2	Estimated Water Demand at 2040 General Plan Update Buildout	2.15-17
Table 2.15-3	Estimated Solid Waste Disposal at 2040 General Plan Update Buildout	2.15-19
Table 2.16-1	Intersection and Roadway Analysis Locations	2.16-5
Table 2.16-2	Roadway Level Of Service Description	2.16-7
Table 2.16-3	Intersection Levels of Service (LOS) (seconds per vehicle)	2.16-8
Table 2.16-4	Level-of-Service Volumes/Capacity Values For Various Roadway Classifications	2.16-8

Table 2.16-5	Existing Conditions Summary Major Roadways in the Planning Area	2.16-9
Table 2.16-6	Current vs. Proposed Roadway Classifications	2.16-18
Table 2.16-7	General Plan 2040 Segment Deficiencies	2.16-21
Table 2.16-8	Intersection Future (2040) Operating Condition	2.16-22
Table 2.16-9	Current vs. Proposed Active Transportation Plans	2.16-24
Table 2.16-10	Current and Proposed General Plan VMT	2.16-25
Table 3-1	Cathedral City General Plan (Alternative 1) Land Use Table	3.1-5
Table 3-2	Cathedral City General Plan (Alternative 2) Land Use Table	3.1-8
Table 3-3	Cathedral City General Plan (2018) (Alternative 3) Existing Land Use Table	3.1-11
Table 3.4-1	Operational Emissions Summary Proposed Vs Alternative 1 Land Use (Lbs./Day)	3.4-2
Table 3.4-2	2040 Operational GHG Emission Comparison (Metric Tons/Year)	3.4-3
Table 3.4-3	Operational Emissions Summary	3.4-5
Table 3.4-4	2040 Operational GHG Emission Comparison (Metric Tons/Year)	3.4-7
Table 3.4-5	Operational Emissions Summary	3.4-9
Table 3.4-6	2040 Operational GHG Emission Comparison (Metric Tons/Year)	3.4-10
Table 3.10-1	Estimated Water Demand at Alternative 1 Buildout	3.10-2
Table 3.10-2	Estimated Water Demand at Alternative 2 Buildout	3.10-5
Table 3.10-3	Estimated Water Demand at Alternative 3 Buildout	3.10-8
Table 3.14-1	Alternative 1 Projected Housing Units at Buildout	3.14-2
Table 3.14-2	Alternative 2 Projected Housing Units at Buildout	3.14-4
Table 3.14-3	No Project Alternative Projected Housing Units at Buildout	3.14-6
Table 3.15-1	Alternative 1 Estimated Water Demand At Buildout	3.15-5
Table 3.15-2	Alternative 1 Estimated Solid Waste Disposal At Alternative 1 Buildout	3.15-7
Table 3.15-3	Alternative 2 Estimated Water Demand At Buildout	3.15-10
Table 3.15-4	Alternative 2 Estimated Solid Waste Disposal At Buildout	3.15-12
Table 3.15-5	Alternative 3 Estimated Water Demand At Buildout	3.15-16
Table 3.15-6	Alternative 3 Estimated Solid Waste Disposal At Buildout	3.15-18
Table 3.17-1	Environmentally Superior Alternative Checklist	3.17-1

List of Charts

Chart 2.12-1	Noise Level Increase Perception	2.12-1
Chart 2.12-2	Reference Ground Surface Vibration Curves	2.12-8
Chart 2.14-1	Cathedral City Age Distribution	2.14-5
Chart 2.14-2	Cathedral City Ethnicity	2.14-6

List of Appendices

Appendix A:	General Plan Update Initial Study, Notice of Preparation (NOP) and Responses to NOP, AB 52 and SB 18 Letters and Comments	A-1
Appendix B:	General Plan Update Air Quality and GHG Report, Terra Nova Planning & Research, Inc. 2019	B-1

Appendix C: Historic Resources Context & Historic Resources Program, Kaplan Chen Kaplan, November 21, 2017 C-1
Appendix D: Cathedral City General Plan Update Noise and Vibration Impact Analysis, Urban Cross Roads, Inc. April 23, 2019 D-1
Appendix E: General Plan Update Transportation Analysis, Urban Crossroads, Inc., February 13, 2019 E-1
Appendix F: Active Transportation Plan, Urban Crossroads, Inc. February 14, 2019 F-1

Cathedral City

City of Cathedral City General Plan UPDATE

ENVIRONMENTAL IMPACT REPORT

EXECUTIVE SUMMARY

INTRODUCTION

The City of Cathedral City (City) has prepared this Environmental Impact Report (EIR) to evaluate the potential environmental impacts related to the adoption of the 2018-19 General Plan Update and the Active Transportation/Neighborhood Electric Vehicle (AT/NEV) Plan (Proposed Project or Project). The City is the lead agency under the California Environmental Quality Act (CEQA) for this project.

The EIR has been prepared in accordance with CEQA (as amended) (Public Resources Code §§21000-21189.3) and the 2016 State CEQA Guidelines (California Code of Regulations, Title 14, Chapter 3, §§15000-15387). Under State CEQA Guidelines §15121 (Informational Document):

- *An EIR is an informational document which will inform public agency decision makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project. The public agency shall consider the information in the EIR along with other information which may be presented to the agency.*

- *While the information in the EIR does not control the agency's ultimate discretion on the project, the agency must respond to each significant effect identified in the EIR by making findings under Section 15091 and if necessary by making a statement of overriding consideration under Section 15093.*

- *The information in an EIR may constitute substantial evidence in the record to support the agency's action on the project if its decision is later challenged in court.*

Under State CEQA Guidelines §15123, this Executive Summary describes the Proposed Project, potentially significant impacts and required avoidance, minimization and mitigation measures. Also identified in this chapter is a summary of the alternatives to the project evaluated in this Draft EIR (Draft EIR or DEIR), including those that would avoid potentially significant effects; issues of concern/areas of controversy known to the Lead Agency; and issues to be resolved including the choice among alternatives and how best to mitigate the potentially significant effects.

The reader should review, but not rely exclusively on the Executive Summary as the sole basis for judgment of the Proposed Project and alternatives. The complete DEIR should be consulted for specific information about the potential environmental effects and mitigation measures to address those effects.

SUMMARY OF THE PROPOSED PROJECT

Introduction
The "Project" is the Comprehensive General Plan Update for the City of Cathedral City General Plan and Active Transportation/Neighborhood Electric Vehicle (AT/NEV) Plan, which address 14,557± acres or approximately 22.7 square miles within its corporate limits. The analysis also considers the 8,425.30 acres (13.16 square miles) in the City Sphere of Influence and other unincorporated lands in the planning area. The total planning area analysed in this EIR encompasses the 14,557± comprising the City's corporate limits in 2018 The Project includes changes to land use designations and circulation system, new and integrated elements, and new goals, policies and programs for all General Plan Elements.

Updated General Plan
The subject General Plan update has a planning horizon of 2040. It is intended to ensure that the City's existing and planned pattern of land uses, transportation infrastructure and other areas of community planning are compatible with long-term physical and regulatory environments, and the changing and evolving economy. Since incorporation in the early 1980s, the City has allowed the use of Specific Plans to address area-wide planning. Over time, many of these Specific Plan areas have remained vacant, have only partially developed or have not developed in the manner envisioned. As a consequence, the City has revisited each of its Specific Plans and has tentatively identified several that may no longer serve an effective planning purpose. These have been identified as candidates for rescinding.

The updated General Plan Land Use Map describes and designates the distribution of land uses by type, location, intensity and/or extent of use. Uses considered are diverse and include: residential, commercial, industrial, open space, recreation, public buildings and facilities, and other categories of public and private land uses. Prior to the adoption of the Cathedral City General Plan comprehensive update, the City utilized the land use designations and assignments adopted in the 1987 Plan. Land use categories and their assignment, as well as the City corporate limits, have evolved through two previous General Plan updates (2002 and 2009). The Project includes a comprehensive assessment of land uses and their distribution in 2018 and was conducted using a computer-based geographic information system (GIS), aerial photo analysis, field surveys and extensive consultations with residents and property and business owners.

Table 1-2 of this DEIR provides statistical summaries of land uses for the proposed General Plan update. Overall land use goals, policies and programs are described in the DEIR and can all be found in the Draft General Plan and AT/NEV Plan.

Active Transportation/Neighborhood Electric Vehicle (AT/NEV) Plan
Concurrent with the preparation of the General Plan *Circulation and Mobility Element*, the City has also prepared an Active Transportation/Neighborhood Electric Vehicle (AT/NEV) Plan. The AT/NEV Plan is a part of the circulation element and implements pathway classifications for numerous streets in the City, assigning designations and providing improvement plans and guidelines that implement a Complete Streets program for the City. The AT/NEV Plan is designed to provide greater pedestrian, bicycle and NEV access to the City roadway system and off-street network including CV Link regional multi-modal pathway.

STATEMENT OF PROJECT OBJECTIVES

Under State CEQA Guidelines §15124(b), the project description shall include a statement of objectives. These objectives from the Draft General Plan have been designed to assist the City in developing a reasonable range of project alternatives to evaluate in the DEIR, and aid the decision-makers in preparing findings or a statement of overriding considerations, if necessary.

The project objectives are intended to address the purpose of the *General Plan Update* and the AT/NEV Plan. The City has identified the following list of criteria as the objectives for the project.

- An updated General Plan which ensures that associated City ordinances, including the Zoning and Subdivision Ordinances, are maintained in conformance with the General Plan
- The continued use of Specific Plans as a preferred method of detailed and systematic implementation of the General Plan for large or complex planning areas
- The periodic examination and review of long-term implications of General Plan policies and programs as they relate to the City's ability to provide public services and facilities
- A cooperative planning process with Riverside County, assuring an effective advisory role regarding any and all development and other land use planning issues or proposals within or in close proximity to the City's Sphere of Influence
- A General Plan that assures that properly filed development applications shall be processed in an expeditious and timely manner
- Master facilities plans that address the recreation, drainage/flood control, infrastructure, utility management, traffic control, and other facility needs of the community
- In-fill development within already urbanized areas of the corporate boundaries of the City
- Expansion of new development that is logically phased and, as appropriate, guided by the development of existing and new Specific Plans
- Ensure opportunities for review and comment on development proposals through public hearing notices sent to owners of property located at least within 300 feet of development proposal sites
- Cooperative public/private ventures and partnerships that better provide public services and facilities that benefit the community

SUMMARY OF PROJECT IMPACTS AND MITIGATION MEASURES

Chapter 2, Environmental Setting, Impacts, and Mitigation Measures, of this DEIR presents the environmental impact analyses for all CEQA resource topics and identifies mitigation measures to reduce significant impacts to a less than significant level, where appropriate and feasible. A summary of all impacts and mitigation measures from Chapter 2 is provided in Table M-1 at the end of this summary. The table is intended to provide a summary of the project's impacts and mitigation measures; please refer to Chapter 2 for the complete analysis and discussion.

The analysis in this EIR finds that impacts associated with greenhouse gas emissions will be significant and unavoidable. A *Statement of Overriding Considerations* will be prepared with regard to unavoidable greenhouse gas emission impacts, and will be considered by the City as a part of its review and consideration of the EIR. The draft statement will set forth information, considerations and findings that are supportive of the goals and benefits of the project as a whole.

ALTERNATIVES SUMMARY

Chapter 3, Alternatives, of this DEIR presents the alternatives analysis for the Proposed Project. CEQA Guidelines §15126.6 requires that an EIR describe and evaluate the comparative merits of a range of alternatives to the project that could feasibly attain most of the objectives of the project, but would avoid or substantially lessen any significant adverse effects of the project. An EIR is not required to 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. The CEQA Guidelines further state that the specific alternative of "no project" shall also be evaluated. The alternatives evaluated in this DEIR were identified based on input from the public, including property owners, City officials and comments from public agencies, and identification of the project's significant environmental impacts in this DEIR. The alternatives were selected in consideration of one or more of the following factors:

- Extent to which the alternative would accomplish most of the basic objectives of the project;
- Extent to which the alternative would avoid or lessen any of the identified significant adverse environmental effects of the project;
- Feasibility of the alternative, taking into account site/geographic suitability, economic viability, constructability, and consistency with regulatory requirements; and
- Appropriateness of the alternative in contributing to a reasonable range of alternatives necessary to permit a reasoned choice by decision-makers.

In consideration of the above factors, the following alternatives were selected to be addressed in this DEIR.

Alternative 1 – More Intense Alternative

Alternative 1 proposes to intensify land uses in some specific areas of the City but also increases the permitted residential densities and intensities (FAR) of commercial and industrial development to also increase. This alternative is selected to address the close correspondence between the current and proposed General Plan update in terms of total potential residential units and commercial and industrial square footage at General Plan buildout. This alternative could also conceivably incentivize owners of vacant and under-utilized buildings to consider changes in land use, and could further encourage in-fill development that can make more efficient use of existing infrastructure. Alternative 1 is described in greater detail in Section 1 of this DEIR.

Alternative 2 – Less Intense Alternative

Alternative 2 proposes a land use plan with specific areas of the City with lower permitted residential densities and intensities (FAR) of commercial and industrial development. This alternative is selected to address the close correspondence between land use and demand for transportation facilities, which primarily address motor vehicle traffic and do not adequately provide for other modes of travel. Alternative 2 would reduce potential residential units and commercial and industrial square footage at General Plan buildout. This alternative could enhance the long-term integration of multi-modal transportation with the current motor vehicle-dominant roadway network. Alternative 2 could also incentivize in-fill development, especially in areas more easily accessible to employment center and commercial services. Alternative 2 is described in greater detail In Section 1 of this DEIR.

Alternative 3 – No Project Alternative

Alternative 3, the No Project Alternative, would result in no changes to General Plan land use designations or the geographic land use assignments, roadway vehicular or multi-modal designations, or General Plan goals, policies or programs established by the current General Plan. The consequences of the continued implementation of the current General Plan are summarized in Section 3 of this DEIR. Alternative 3 is described in greater detail In Section 1.

ISSUES OF CONCERN/AREAS OF CONTROVERSY

When a Lead Agency determines that an EIR is required for a project, a Notice of Preparation (NOP) must be prepared and submitted to the State Clearinghouse. The purpose of the NOP is to provide responsible and trustee agencies, and the public, with sufficient information describing the Proposed Project and the potential environmental effects, to enable interested parties/persons to make a meaningful response. The City issued the NOP for the Project on August 3, 2018, and it concluded after the 30-day public review period concluded on September 3, 2018. Public Scoping Meetings were held on May 1, 8, 15 and 22, 2018 with the purpose of educating and informing the public about the proposed General Plan update and AT/NEV Plan, addressing public questions and concerns, and collecting input on the CEQA process. This and additional public input was also collected at a July 24, 2018 public City Council meeting and a joint study session of the City Council and Planning Commission on September 26, 2018.

A wide variety of comments were received on the NOP, and questions recorded during the Scoping Meetings were in regard to the general effects of a new General Plan and EIR analysis, as well as specific areas, including land use, circulation and mobility, public services, environmental resources and hazards. Each is briefly discussed below and are evaluated, as appropriate, in the Draft EIR.

Land Use

- Parks/Recreation: More parks/recreational space in the City, especially Cove area. This includes both indoor and outdoor opportunities, such as dog parks and community centers.
- Cannabis Cultivation: Concerns that cannabis cultivation is buying out and making less competitive other commercial/retail land uses. Keep cannabis cultivation within industrial zoned areas.
- Vacant Commercial Buildings: Encourage infill or repurposing of vacant commercial/retail buildings.
- Mixed-Use Development: Diversify the commercial/retail opportunities within the City, including office space, medical space, and live/work opportunities.
- Opportunities for development on lands between the UPRR lines and US I-10.
- Evolution of land uses along Perez Road between Cathedral Canyon and Date Palm Drives.

Circulation

- Infrastructure Improvements: Improve streets and sidewalks, including pavement resurfacing and ensuring sidewalks are complete/connected.
- Parking: More parking for trailheads, CV Link, and in multi-family residential areas.
- Improve Alternative Transportation: Shade structures at bus stops, improved bus turnouts, improve connectivity (bike lanes, sidewalks etc), more frequent bus stops/expanded bus route.
- Opportunities to provide access for lands between the UPRR lines and US I-10.
- Secondary access issues in the Dream Homes neighborhood

Public Services

- New Community Center: More options throughout the City for community activities, recreation, etc. Possibly to be located towards the northern portion of the City to balance with the Senior Center/Community Center.
- Police/Fire: Additional Police and Fire services are needed in proximity to the northern portion of the City.
- Utilities: Remove septic tanks/expand sewer infrastructure to those in need. Encourage solar with more incentives.
- Homeless: Provide additional homeless resources/housing/employment opportunities.

Environmental Resources

- Open Space: Conserve open space/parkland.
- Trails: Add signage to City trailheads to promote eco-tourism.
- Biological Resources: Concerns about CV Link's impact to biological resources.
- Landscaping: Use more desert landscaping throughout the City. Add more trees.

Environmental Hazards

- Odor: Odor control for cannabis operations. Odor control in areas of poor sewer/stormwater management.
- Flooding: Re-map City's flood hazard zones.

ENVIRONMENTAL SUMMARY MATRIX

This Environmental Impact Report (EIR) has been prepared to assess the potential impacts to the environment that may result from the approval and implementation of the proposed General Plan Update for the City of Cathedral City. The project planning area is limited to the current Cathedral City corporate limits and encompasses 14,557± acres (approximately 22.7 square miles). It does not include the City's Sphere of Influence or other unincorporated lands in the planning area. The proposed General Plan Update includes changes to land use designations and circulation system, new and integrated elements, and new goals, policies and programs for all General Plan Elements.

Summary of Alternatives

The proposed General Plan Update project includes three alternatives as follows:

Alternative 1 - More Intense Alternative: This alternative proposes a General Plan update with the same General Plan Elements, goals, policies, and programs as the Proposed Project, but with a more intense land use map than the Proposed Project. It increases development intensities on several vacant parcels south of I-10. Specifically, Alternative 1 proposes increased residential densities on vacant land northeast of Dinah Shore Drive and Plumley Road, and northeast of 30th Avenue and Date Palm Drive. Additionally, whereas the proposed General Plan proposes Industrial land uses northeast of 30th Avenue and Date Palm Drive, Alternative 1 proposes General Commercial land uses. Whereas the proposed General Plan proposes Business Park uses near the southwest boundary of the City, Alternative 1 proposes Industrial uses. Several smaller scattered parcels are also proposed for higher intensity uses. Land use designations north of I-10 are the same for both alternatives, consistent with those approved in the North City Specific Plan and North City Extended Specific Plan.

Although more intense land use designations increase the development potential of land, they can also increase the potential consumption of resources, such as water and electricity, and the need for infrastructure and public services, such as roads and schools.

Alternative 2 - Less Intense Alternative: This alternative proposes a General Plan update with the same General Plan Elements, goals, policies, and programs as the Proposed Project, but with a less intense land use plan than the Proposed Project. It decreases the development intensity on several vacant parcels south of I-10. Specifically, where the proposed General Plan designates land for Medium Density Residential and Industrial northeast of 30th Avenue and Date Palm Drive, Alternative 2 designates it for Low Density Residential uses. Where the proposed General Plan designates land northeast of Dinah Shore Drive and Plumley Road for Resort Residential uses, Alternative 2 designates it for Low Density Residential. Land use designations north of I-10 are the same under both alternatives, consistent with the approved land use plans of the North City Specific Plan and North City Extended Specific Plan.

Lower density land uses generally consume fewer resources and require less infrastructure and public services. However, they may not fully maximize the development potential of a parcel.

Alternative 3 - No Project Alternative: This alternative represents the continued implementation of the current Cathedral City General Plan, adopted in 2002 and amended in 2009, including its land use map, General Plan elements, and goals, policies, and programs. No update to goals, policies, or programs would occur.

Whereas the proposed land use plan designates vacant parcels northeast of 30th Avenue and Date Palm Drive for a variety of commercial, industrial, and residential uses, the current General Plan designates a substantial portion of it for low-density residential uses. Whereas the proposed land use plan designates much of the east side of Date Palm Drive between Ramon Road and Ortega Road for Medium Density Residential, the current General Plan designates it for General Commercial uses. Under the proposed General Plan, vacant land at the southwest City boundary is designated for Business Park uses; the current General Plan designates it for General Commercial uses. Designations vary on several others parcels south of I-10, but designations north of I-10 are the same under both plans, consistent with the approved North City Specific Plan and North City Extended Specific Plan.

Definition of Impacts

The following discussion briefly summarizes each category of analysis, including existing conditions, project impacts and applicable mitigation measures recommended to reduce impacts to acceptable or insignificant levels. Levels of impact include the following:

Potentially Significant Impacts: Those impacts which, prior to the implementation of mitigation measures, could potentially adversely impact environmental conditions.

Less Than Significant Impacts: Those impacts, which, by virtue of the environmental conditions, predisposing existing development, or the implementation of mitigation measures, are reduced to acceptable or "insignificant" levels.

No Impacts: Those conditions where the Proposed Project will not impact the environmental condition.

Areas of Controversy

There are no known areas of controversy in the project's physical characteristics that are not resolved by project design, development management and operation, mitigation measures or standard on-going monitoring.

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	**Level of Impact Before Mitigation**	**Proposed Mitigation Measure(s)**	**Level of Significance after Mitigation**
Section 2.2 Aesthetics			
a. Have a substantial adverse effect on a scenic vista. b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. c. In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	Potentially Significant	**AES 1** The City shall initiate a review of the 2002 Downtown Design Guidelines and shall update this document in a manner that builds from and extends the aesthetic, functionality and values reflected in the Community Design Element and the other General Plan elements. **AES 2** The City-Wide Design Guidelines and Zoning Ordinance shall be periodically reviewed and, as appropriate, revised and updated to reflect the changing urban pattern and needs of the community. **AES 3** The City shall require the incorporation of parks and open space into new development projects, and shall ensure that new parks and open space are developed in the early phases of development projects. **AES 4** To preserve and restore the community's night sky, the City shall review and, as appropriate, update the Lighting Ordinance to require outdoor lighting to be shielded, limit in height, number, and intensity of fixtures to the minimum needed to provide sufficient security and identification on residential, commercial, and other development. **AES 5** To ensure that development proposals are initiated consistent with the City's community design principles and values, the City shall maintain comprehensive development application packages that provide detailed information on and direct applicants to City design guideline documents, ordinances and other requirements, standards and guidelines. **AES 6** Promote development plans that are based on the principles and values set forth in the Community Design and other General Plan Elements that	Less Than Significant

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	**Level of Impact Before Mitigation**	**Proposed Mitigation Measure(s)**	**Level of Significance after Mitigation**
d. Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.		define and support positive and unique qualities of existing and planned neighborhoods. **AES 7** New residential development proposals shall be reviewed by City staff to assure compliance with applicable design standards and guidelines, and promote design features, such as entry statements, recreational facilities, neighborhood parks and schools, and landscaping along public rights-of-way. **AES 8** Require the submittal of detailed landscape, architectural, and special signage designs for project entries and other design features in or adjacent to the public realm to assure compliance with community design standards and guidelines, and compatibility with the natural and built environments. **AES 9** The City shall develop and adopt a program of Code compliance standards for existing and future neighborhoods, and enforce the program through regular Code Compliance inspections. **AES 10** The Land Use Map and Zoning Ordinance shall regulate development at the boundaries of the planning area to assure the preservation of a well-defined, functional, or visual edge. **AES 11** The development and design review process shall assess the adequacy of proposed design features and landscaping materials.	
Section 2.3 Agricultural and Forestry Resources			
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps pursuant to the	No Impact	No mitigation is required.	No Impact

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	**Level of Impact Before Mitigation**	**Proposed Mitigation Measure(s)**	**Level of Significance after Mitigation**
Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. b. Conflict with existing zoning for agricultural use, or a Williamson Act Contract. c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? d. Result in the loss of forest land or conversion of forest land to non-forest use?			

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	**Level of Impact Before Mitigation**	**Proposed Mitigation Measure(s)**	**Level of Significance after Mitigation**
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?			
Section 2.4 Air Quality and Greenhouse Gases			
Air Quality a. Conflict with or obstruct implementation of the applicable air quality plan. b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard. c. Expose sensitive receptors to substantial pollutant concentrations.	Potentially Significant	**AQ-1** PM_{10} Monitoring On an on-going basis, the City shall continue to cooperate and participate in efforts to monitor and control PM_{10} emissions from construction and other sources, and all other air pollutants of regional concern. The City shall coordinate with CVAG and the SCAQMD to provide all reporting data for SCAQMD annual report. **AQ-2** Air Quality Data Records The City shall maintain records of historic and current regional and local air quality trends and make them available to the public. Access to data may be made available via an Internet link, printed material, or other means. **AQ-3** Sensitive Receptors The General Plan Land Use Map and Element shall be developed and maintained to identify and locate air pollution point sources, such as manufacturing operations and highways, at an appropriate distance from sensitive receptors, including hospitals, schools, hotels/motels, and residential neighborhoods.	Less Than Significant

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Impact Before Mitigation	Proposed Mitigation Measure(s)	Level of Significance after Mitigation
d. Result in other emissions, such as those leading to odors adversely affecting a substantial number of people. <u>Greenhouse</u> a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.		**AQ-4** <u>Sensitive Receptor Buffer Zones</u> Buffer zones between sensitive receptors and potential air pollutant emitters shall be incorporated into new and proposed residential developments and other developments, to the greatest extent feasible. **AQ-5** <u>CEQA Air Quality Analysis</u> The City shall conduct an Initial Study and, where appropriate, require a detailed air quality analysis for all proposals that have the potential to adversely affect local or regional air quality. **AQ-6** <u>CEQA Analysis and Mitigation</u> Projects that may generate significant levels of air pollution shall be required to conduct detailed impact analyses and incorporate mitigation measures into their designs using the most advanced technological methods practicable. All proposed mitigation measures shall be reviewed and approved by the City prior to the issuance of grading or demolition permits. **AQ-7** <u>Fugitive Dust Control Plans</u> The City shall continue to enforce a Fugitive Dust Emissions Ordinance to reduce and control local PM_{10} emissions. All dust control mitigation plans prepared by contractors, developers, and other responsible parties shall be reviewed and approved by the City prior to the issuance of grading or demolition permits. **AQ-8** <u>Code Enforcement: Fugitive Dust and Blowsand</u> Provide consistent and effective code enforcement of construction and grading activities and off-road vehicle use to assure that the impacts of blowing sand and fugitive dust emissions are avoided or minimized.	

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	**Level of Impact Before Mitigation**	**Proposed Mitigation Measure(s)**	**Level of Significance after Mitigation**
		AQ-9 Alternative Fuels: City Fleet Where cost-effective, vehicles that use alternative fuel sources, such as compressed natural gas and electricity, shall be purchased and maintained for use in the City's vehicle fleet. **AQ-10** Energy Efficient Design Site plans shall incorporate energy-efficient design elements, including appropriate site orientation, possibility for incorporation of active and/or passive solar design, and the use of shade and windbreak trees, to reduce fuel consumption for heating and cooling. **AQ-11** Solar Systems The City shall support and promote the use of roof-top solar electric systems in new and existing development, and shall review the City Zoning Ordinance to ensure that City regulations do not create an undue burden on those who wish to install solar electric systems. **AQ-12** Alternative Energy: Community Wide To encourage the use of alternative energy sources, installation of electric vehicle charging stations shall be encouraged in all new development and in major retrofits. **AQ-13** Alternative Modes of Transportation Planning The General Plan Circulation and Mobility Element shall encourage the incorporation of appropriate alternatives to motor vehicles in the transportation network, and shall be periodically reviewed and updated to assure the future expanded use of such alternatives. **AQ-14** Non-Motorized Transportation Planning The City shall pursue land use patterns and mechanisms, including Mixed-Use development and a balance of employment and housing opportunities	

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	**Level of Impact Before Mitigation**	**Proposed Mitigation Measure(s)**	**Level of Significance after Mitigation**
		that encourage pedestrian and other non-motorized transportation and minimize vehicle miles traveled. **AQ-15** Active Transportation/NEV Plan The City Active Transportation/NEV Plan shall be funded and implemented to the maximum extent practicable in order to make safe and convenient alternative modes of travel the norm in the City **AQ-16** LSEV Planning LSEV Revise ordinance to allow to the greatest extent practicable **AQ-17** Regional Mass Transportation Planning Coordinate with CVAG, SCAG, Sunline Transit Agency and other public and private service providers to improve, expand, and optimize cost-effective regional mass transportation services. **AQ-18** Ridesharing Programs Promote and support the development of ridesharing, carpooling, flexible work scheduling, telecommuting, and Park and Ride programs among public and private employers to decrease existing and future traffic levels in the Coachella Valley. **AQ-19** TDM Planning The City shall consider adopting a Transportation Demand Management (TDM) Ordinance that applies to new or change-of-use non-residential developments employing 100 or more persons, and which requires the project proponent to demonstrate how the development will reduce the number of project-generated vehicle trips.	

		AQ-20 Air Quality Management Manual Prepare and distribute to developers, contractors, consultants and others an air quality management manual that describes effective and appropriate methods of controlling and reducing development-related air pollutants, particularly PM_{10} emissions. **AQ-21** CAP, GHG Inventory, EAP, GFL Updates Update the City's Climate Action Plan, Greenhouse Gas Inventory, Energy Action Plan and Green for Life program materials to include current trends in technology, climate regulations, and to track the City's efforts to reduce overall greenhouse gas emissions. **AQ-22** CEQA Analysis: CAP Measures Projects that require CEQA analysis shall be required to conduct detailed impact analyses and incorporate mitigation measures into their designs using the City's current Climate Action Plan prescribed reduction measures for achieving greenhouse gas emission reduction targets. All proposed mitigation measures shall be reviewed and approved by the City prior to the issuance of grading or demolition permits. Environmental Justice Element **AQ-23** Land Use Planning: Reduce Vehicular Trips To the greatest extent practicable, require that development be located and designed to reduce vehicular trips (and associated air pollution) by utilizing compact development patterns while maintaining community character. **AQ-24** Sensitive Use Pollution Minimization The city shall require new development with sensitive uses located adjacent to pollution sources be designed with consideration of site and building orientation, location of trees, and incorporation of ventilation and filtration to lessen and minimize any potential health risks.	

		Healthy and Sustainable Community Element **AQ-25** Energy and Resource Conservation Continue to work collaboratively with local utility providers and regulatory agencies to assure the City is implementing the most appropriate and effective energy and resource conservation strategies. **AQ-26** Energy and Water Efficiency Incentives Provide permitting-related and other incentives for energy- and water-efficient building projects, e.g. by giving green projects priority in plan review, processing, and field inspection services. **AQ-27** Low Income Energy Efficiency Projects Partner with community services agencies to fund energy-efficiency projects, including heating/ventilation/air conditioning (HVAC), lighting, water heating equipment, insulation, and weatherization projects, for low income residents. **AQ-28** Energy Efficient Affordable Housing Target local funding, including utility programs and Community Development Block Grant resources, to assist affordable housing developers in incorporating energy efficient designs and features. **AQ-29** Green Building Information Develop and make available to developers, designers, and other interested parties informational materials about green building strategies and programs, including LEED and LEED-ND rating systems and certification programs. Community Design Element **AQ-30** Sustainability Plan The City design review process, whether for public or private development projects, shall include a thorough assessment of how and to what extent projects are sustainable, and a sustainability check list derived from the City Sustainability Plan, this element and other regulatory and policy documents, shall be developed and used to assess all project's sustainability.	

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	**Level of Impact Before Mitigation**	**Proposed Mitigation Measure(s)**	**Level of Significance after Mitigation**
		AQ-31 Active Transportation/Complete Streets The City shall implement its *Active Transportation Plan* and *Complete Streets* principles in a manner that encourages pedestrian and bicycle use and shall be spatially defined by buildings, trees and lighting, and discourages high speed traffic Open Space and Conservation Element **AQ-32** Energy Efficient and Energy Conserving Design The City shall provide developers with available data on energy efficient and conserving building design and technologies. This information, such as the City's *Green for Life* handbooks and may also include information from utilities, trade organizations, state agencies and other system resources that can enhance overall energy conservation. **AQ-33** Energy Education Encourage Southern California Edison and other providers to facilitate the transfer of data, information and technologies to enhance public education on energy conservation. **AQ-34** SunLine Energy Management and Conservation The City shall participate in the energy management and conservation efforts of SunLine Transit and encourage the expanded use of compressed natural gas, hydrogen fuel cell and other alternative-fuel buses with bike racks and other system improvements that enhance overall energy efficiency and conservation. **AQ-35** Minimize Travel via Land Use Planning Amendments to the land use map and Land Use Element shall consider the provision of convenient neighborhood shopping, medical and other	

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	**Level of Impact Before Mitigation**	**Proposed Mitigation Measure(s)**	**Level of Significance after Mitigation**
		professional services appropriately located to minimize travel and facilitate the use of alternative means of transportation. **AQ-36** Commercial and Industrial Energy Management Systems As a part of *Green for Life*, *Energy Action Plan* and other City programs, continue to evaluate the use of co-generation and other energy management systems for new larger industrial and commercial businesses in the City as they arise. **AQ-37** Community and Regional Multi-Modal Path Facilitate the development of a community-wide and regional multi-modal path system to provide residents and visitors with alternatives to motor vehicle transportation. **AQ-38** Ridesharing Information The City shall make available information on ridesharing, ride-booking and SunLine Transit services available to residents and businesses, throughout the City. **AQ-39** Internal Efficiency Upgrades Establish a revolving loan fund for internal efficiency upgrades. Rules for use of the fund and its reimbursement will be established. **AQ-40** Workspace Energy and Cost Efficiencies Implement the City's Commissioning/Retro-Commissioning practice and procedures to identify and plan for maintenance and enhancement of energy and cost efficiencies, as well as ensuring optimal comfort and human satisfaction in City workspaces.	

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	**Level of Impact Before Mitigation**	**Proposed Mitigation Measure(s)**	**Level of Significance after Mitigation**
		AQ-41 State and Federal Incentives for Energy Efficiency The City will leverage state and federal incentives for energy efficiency to augment incentives provided by Southern California Edison, Southern California Gas, and others. Consider energy efficiency in capital improvement budget discussions. **AQ-42** Municipal Solar and Alternative Energy The City shall seek grants and partnerships to increase the development of solar PV systems, and the continued market growth in Electric Vehicle and Compressed Natural Gas vehicles, and associated charging/refueling stations at City facilities and elsewhere throughout the community. Circulation and Mobility Element **AQ-43** The City shall apply to all development plans the adopted roadway classifications, and implement the Active Transportation Plan to maximize walking, bicycling, and use of LSEVs, and assure safe and efficient connections to City-wide and regional multi-modal facilities. **AQ-44** When initiating review of development proposals, the City shall consult and coordinate with SunLine and solicit comments and suggestions on bus stops and other public transit facilities and design concepts, including enhanced handicapped access, should be integrated into project designs.	
Section 2.5 Biological Resources			
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a	Potentially Significant	**BIO-1** Mitigation Related to the CVMSHCP To the extent applicable, the City shall comply with all terms and conditions of the CVMSHCP and Implementing Agreement including, but not limited to: implementation of the "Land Use Adjacency Guidelines" as described in Section 4.5 of the CVMSHCP and collection of approved CVMSHCP land development mitigation fees.	Less Than Significant

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Impact Before Mitigation	Proposed Mitigation Measure(s)	Level of Significance after Mitigation
candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.		**BIO-2** <u>Mitigation Related to the Tribal HCP</u> The City shall cooperate and coordinate with the Agua Caliente Band of Cahuilla Indians to help assure the development on tribal lands in the planning area conforms to the provisions of the Tribal Habitat Conservation Plan. **BIO-3** <u>Mitigation Related to Burrowing Owl</u> For projects that contain suitable habitat for Burrowing Owl, a "take avoidance survey" for the burrowing owl no less than 14 days (in accordance with the Staff Report on Burrowing Owl Mitigation [CDFW 2012]) and no more than 30 days prior to groundbreaking activities shall be required. Additionally, a final survey must be conducted within 24 hours of the initiation of ground disturbance activities in accordance with the CDFW 2012 protocol. a. If no burrowing owls are detected during those surveys, implementation of ground disturbance activities could proceed without further consideration of this species assuming there is no lapse between the surveys and construction as the protocol states "time lapses between Project activities trigger subsequent take avoidance surveys including but not limited to a final survey conducted within 24 hours prior to ground disturbance." b. If burrowing owls are detected during the take avoidance surveys, avoidance and minimization measures would then be required and could include the establishment of a buffer zone, the passive or active relocation of the individual(s) or other measures approved by the CDFW.	

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Impact Before Mitigation	Proposed Mitigation Measure(s)	Level of Significance after Mitigation
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan		**BIO-4** Mitigation Related to MBTA If ground disturbance, tree or plant removal is proposed between February 1st and August 31st, a qualified biologist shall conduct a nesting bird survey within 7 to 10 days of initiation of grading onsite focusing on MBTA covered species. If active nests are reported, then species-specific measures shall be prepared. At a minimum, grading in the vicinity of a nest shall be postponed until the young birds have fledged. For construction between September 1st and January 31th, no pre-removal nesting bird survey is required. a. In the event active nests are found, exclusionary fencing shall be placed 200 feet around the nest until such time as nestlings have fledged. Nests of raptors and burrowing owls shall be provided a 500-foot buffer. Ground disturbance between September 1 and January 31 shall be exempt from this requirement. **BIO-5** Mitigation Related to Bats. Focused surveys shall be conducted to ensure that bats are not present to avoid or minimize harm or disturbance by construction activities. Potential roost sites include, but may not be limited to, bridges associated with I-10, UPRR, and the Whitewater River Stormwater Channel, and any other structures in the project area that could provide roosts for bats. **BIO-6** Mitigation Related to Casey's June Beetle. Projects in the USFWS-designated CJB survey area shall be required to conduct pre-construction site assessments and species surveys in accordance with USFWS protocols and requirements. Should the species be detected onsite, an appropriate mitigation program shall be developed in cooperation with the project proponent, USFWS, and other appropriate parties.	

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	**Level of Impact Before Mitigation**	**Proposed Mitigation Measure(s)**	**Level of Significance after Mitigation**
		<u>Mitigation Related to Jurisdictional Waters and Wetlands</u> As warranted, proposed development projects shall be evaluated for their potential to impact waters to the United States and State of California and shall be required to meet all project mitigation requirements. **BIO-7** Prior to the initiation of any construction within areas determined by a Jurisdictional Delineation to be waters of the US, a permit or permits shall be approved and issued by the USACE under Section 404 of the CWA to authorize the discharge of dredged or fill material into waters of the US. **BIO-8** Prior to the initiation of any construction within areas determined by a Jurisdictional Delineation to be waters of the US or the State, a Water Quality Certification shall be approved and issued by the Colorado River RWQCB (Region 7) under Section 401 of the CWA. **BIO-9** Prior to the initiation of any construction within areas determined by a Jurisdictional Delineation to be waters of the State, a permit or permits shall be approved and issued by the Colorado River RWQCB (Region 7) under the Porter Cologne Water Quality Control Act. **BIO-10** Prior to the initiation of any construction within areas determined by a Jurisdictional Delineation to be waters of the State, a 1602 Streambed Alteration Agreement shall be approved and issued by the California Department of Fish and Wildlife.	
Section 2.6 Cultural and Tribal Cultural Resources			
Cultural Resources	Potentially Significant	**CUL-1** In instances where maintenance, repair, stabilization, rehabilitation, restoration, preservation, conservation or reconstruction of an historical resource will be conducted in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines	Less Than Significant

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Impact Before Mitigation	Proposed Mitigation Measure(s)	Level of Significance after Mitigation
a. Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5. b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5. c. Disturb any human remains, including those interred outside of dedicated cemeteries. **Tribal Cultural Resources** a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred		for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings (1995), the project's impact on the historical resource shall generally be considered mitigated below a level of significance and thus is not significant. **CUL-2** Where appropriate and in conjunction with other measures, require documentation of an historical resource by way of historic narrative, photographs or architectural drawings, prior to impacting the resource, and require additional mitigation where necessary to ensure that adequately mitigate the effects to a point where impacts are clearly less than significant. **CUL-3** Whenever feasible, seek to avoid damaging effects on any historical resource of an archaeological nature. The following factors shall be considered and discussed in CEQA documentation for a project involving such an archaeological site: (A) Preservation in place shall be the preferred manner of mitigating impacts to archaeological sites. Preservation in place maintains the relationship between artifacts and the archaeological context. Preservation may also avoid conflict with religious or cultural values of groups associated with the site. (B) Preservation in place may be accomplished by, but is not limited to, the following: 1. Planning construction to avoid archaeological sites; 2. Incorporation of sites within parks, greenspace, or other open space;	

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Impact Before Mitigation	Proposed Mitigation Measure(s)	Level of Significance after Mitigation
place, or object with cultural value to a California Native American tribe, and that is: i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall		3. Covering the archaeological sites with a layer of chemically stable soil before building tennis courts, parking lots, or similar facilities on the site. 4. Deeding the site into a permanent conservation easement. (C) When data recovery through excavation is the only feasible mitigation, a data recovery plan, which makes provision for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken. Such studies shall be deposited with the California Historical Resources Regional Information Center. Archaeological sites known to contain human remains shall be treated in accordance with the provisions of Section 7050.5 Health and Safety Code. If an artifact must be removed during project excavation or testing, curation may be an appropriate mitigation. (D) Data recovery may not necessarily be required for an historical resource if the City, as CEQA lead agency determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the archaeological or historical resource, provided that the determination is documented in the project EIR and that the studies are deposited with the California Historical Resources Regional Information Center. **CUL-4** <u>Pre-Construction Surveys</u> The City shall require intensive-level cultural resources surveys by qualified archaeologists, historians, and/or architectural historians, where deemed necessary and especially in areas of high sensitivity for cultural resources, as shown on Exhibit 2.6-1. Studies should include in-depth records search at	

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Impact Before Mitigation	Proposed Mitigation Measure(s)	Level of Significance after Mitigation
consider the significance of the resource to a California Native American tribe.		the EIC, historic background research, intensive-level field survey, and consultation with the Cathedral City Historical Society, Native American representatives, and/or other relevant parties, as well as impact evaluation and mitigation programs, as needed. The City shall monitor and enforce recommended mitigation measures. **CUL-5** Archaeological and/or Tribal Resource Procurement and Documentation Should unknown archeological or tribal cultural resource materials become unearthed, the area of potential resources shall be cordoned off and protected from further disturbance until a qualified archeologist can investigate the discovery. The qualified archaeologist shall prepare a findings report summarizing the methods and results of the investigation, including an itemized inventory and detailed analysis of recovered artifacts upon completion of field and laboratory work. The report shall include an interpretation of the cultural activities represented by the artifacts and a discussion of the significance of all archaeological or tribal finds. The submittal of the report to the City and Tribal representative, as appropriate, along with final curation of the recovered artifacts, will signify completion of the monitoring program and, barring unexpected findings of extraordinary significance, the mitigation of potential project impacts on cultural and tribal resources. **CUL-6** Human Remains Should buried human remains be discovered during grading or other construction activity, in accordance with State law, the County coroner shall be contacted. If the remains are determined to be of Native American heritage, the Native American Heritage Commission and the appropriate local Native American Tribe shall be contacted to determine the Most Likely Descendant (MLD).	

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Impact Before Mitigation	Proposed Mitigation Measure(s)	Level of Significance after Mitigation
Section 2.7 Mineral and Energy Resources			
Mineral Resources a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. b. 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. Energy a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. b. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.	Potentially Significant	**ME-1** The City shall require new developments to reduce energy consumption through appropriate building technologies, promotion of non-auto transportation modes, support for greater use of alternative energy sources, and dissemination of public information regarding energy conservation techniques. **ME-2** The City shall work with utility providers to provide incentives for energy- and water-efficient building projects, e.g. by giving green projects priority in plan review, processing, and field inspection services. **ME-3** The City shall develop or otherwise make available information to developers on energy efficient and conserving building design and technologies, addressing enhanced wall and ceiling insulation, thermally efficient glazing, and efficient heating and cooling equipment and household appliances. **ME-4** The City shall periodically assess the local transportation system and plan or maintain improvements that enhance the efficient movement of people and goods through the community. **ME-5** The City shall continue to participate in the transportation planning efforts of SunLine Transit Authority and shall encourage the expanded use of public transit, vehicles fueled by compressed natural gas and hydrogen, buses with bike racks and other system improvements that enhance overall transportation system operations and energy conservation. **ME-6** The City shall strive for efficient community land use and transportation planning and design, and shall assure the provision of convenient neighborhood shopping, medical and other professional services	Less Than Significant

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	**Level of Impact Before Mitigation**	**Proposed Mitigation Measure(s)**	**Level of Significance after Mitigation**
		appropriately located to minimize travel and facilitate the use of alternative means of transportation.	
Section 2.8 Geology and Soils			
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. ii) Strong seismic ground shaking?	Potentially Significant	**GEO-1** The City shall establish and maintain an information database containing maps and other information which describe seismic and other geotechnical hazards occurring within the planning area. **GEO-2** The City shall actively promote public education, research, and information dissemination on seismic and geotechnical hazards. **GEO-3** New development in the planning area shall be constructed in accordance with the prevailing seismic design requirements contained in the most recently adopted edition of the Uniform Building Code/International Building Code and as otherwise required by the City. **GEO-4** The City shall continue to incorporate seismic risk analysis into the City's on-going building inspection program. **GEO-5** On sites where threats from seismic hazards cannot be adequately mitigated through the application of existing regulatory requirements and Updated General Plan policies and implementation programs, the City shall use open space easements and/or other related regulatory measures to limit development and thus avoid public safety hazards. **GEO-6** Proposals for development on wind or stream-deposited sediment on the valley floor shall include site-specific subsurface geotechnical investigations	Less Than Significant

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Impact Before Mitigation	Proposed Mitigation Measure(s)	Level of Significance after Mitigation
iii) Seismic-related ground failure, including liquefaction? iv) Landslides? b. Result in substantial soil erosion or the loss of topsoil? c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property? e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water		that address settlement, liquefaction, and collapsible soils. These hazards can generally be mitigated by proper excavation, compaction and foundation design. **GEO-7** The City shall continue to require expansive soils testing as part of its grading and building codes, and shall assure the implementation of mitigation measures which minimize these hazards, such as the use of reinforcing steel in foundations, drainage control devices, overexcavation and backfilling with non-expansive soils. **GEO-8** The City shall continue to support and encourage local and regional groundwater conservation measures in an effort to mitigate potential subsidence resulting from groundwater overdraft. (see also Water Resources discussion in Section 2.10: Hydrology and Flooding). **GEO-9** All grading permit requests shall include a PM_{10} Management Plan in conformance with the latest approved Coachella Valley PM_{10} requirements in place at the time construction occurs. Blowing dust and sand during grading operations shall be mitigated by adequate watering of soils prior to and during grading, and limiting the area of dry, exposed soils during grading (see also Air Quality discussion in Section 2.4). **GEO-10** Where development is proposed adjacent to or in close proximity to steep slopes, site-specific geotechnical studies shall be conducted to evaluate the potential for rock falls and/or slope failure, and to establish mitigation measures which minimize these hazards. **GEO-11** All development proposed within Alquist-Priolo Earthquake Zones and City-designated study zones shall comply with State requirements for site-	

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Impact Before Mitigation	Proposed Mitigation Measure(s)	Level of Significance after Mitigation
disposal systems where sewers are not available for the disposal of waste water? f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		specific study, including trenching to locate fault traces, and to submit this analysis prior to any development approval for the property. **GEO-12** During site grading, all existing vegetation and debris shall be removed from areas that are to receive compacted fill. Any trees to be removed shall have a minimum of 95% of the root systems extracted or as prescribed by the project soils engineer. Man-made objects shall be overexcavated and exported from the site. Removal of unsuitable materials may require excavation to depths ranging from 2 to 4 feet or more below the existing site grade. **GEO-13** All fill soil, whether on site or imported, shall be approved by the individual project soils engineer prior to placement as compaction fill. All fill soil should be free from vegetation, organic material, cobbles and boulders greater than 6 inches in diameter, and other debris. Approved soil shall be placed in horizontal lifts of appropriate thickness, as prescribed by the soils engineer, and watered or aerated as necessary to obtain near-optimum moisture content. **GEO-14** Fill materials shall be completely and uniformly compacted to not less than 90% of the laboratory maximum density as determined by ASTM test method D-1557-78. The project soils engineer shall observe the placement of fill and take sufficient tests to verify the moisture content, uniformity, and degree of compaction obtained. In-place soil density should be determined by the sand-cone method, in accordance with ASTM Test Method D-1556-64 (74), or equivalent test method recommended by the soils engineer and as acceptable to the City Building and Safety Department. **GEO-15** Finish cut slopes generally shall not be inclined steeper than 2:1 (horizontal to vertical). Attempts to excavate near-vertical temporary cuts for retaining	

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	**Level of Impact Before Mitigation**	**Proposed Mitigation Measure(s)**	**Level of Significance after Mitigation**
		walls or utility installations in excess of 5 feet may result in gross failure of the cut and may possibly damage equipment and injure workers. All cut slopes must be inspected during grading to provide additional recommendations for safe construction. **GEO-16** Finish fill slopes shall not be inclined steeper than 2:1 (horizontal to vertical) or as approved by the project geotechnical engineer. Fill slope surfaces should be compacted to 90% of the laboratory maximum density by either over-filling and cutting back to expose a compacted core or by approved mechanical methods. **GEO-17** Foundation systems that utilize continuous and spread footings are recommended by the project soils engineer for the support of one and two-story structures. Foundations for higher structures must be evaluated based on structure design and on-site soil conditions. **GEO-18** Positive site drainage shall be established during finish grading. Finish lot grading shall include a minimum positive gradient of 2% away from structures for a minimum distance of three (3) feet and a minimum gradient of 1% to the street or other approved drainage course. **GEO-19** An adequate subdrain system shall be constructed behind and at the base of all retaining walls to allow for adequate drainage and to prevent excessive hydrostatic pressure. **GEO-20** Utility trench excavations in slope areas or within the zone of influence of structures should be properly backfilled in accordance with the following recommendations:	

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	**Level of Impact Before Mitigation**	**Proposed Mitigation Measure(s)**	**Level of Significance after Mitigation**
		a) Pipes shall be bedded with a minimum of 6 inches of pea gravel or approved granular soil. Similar material shall be used to provide a cover of at least 1 foot over the pipe. This backfill shall then be uniformly compacted by mechanical means or jetted to a firm and unyielding condition. b) Remaining backfill may be fine-grained soil. It shall be placed in lifts not exceeding 6 inches in thickness or as determined appropriate, watered or aerated to near optimum moisture content, and mechanically compacted to a minimum of 90% of the laboratory maximum density. c) Pipes in trenches within 5 feet of the top of slopes or on the face of slopes shall be bedded and backfilled with pea gravel or approved granular soils as described above. The remainder of the trench backfill shall comprise typical on-site fill soil mechanically compacted as described in the previous paragraph.	
Section 2.9 Hazards and Hazardous Materials and Wildfires			
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the	Potentially Significant	**HAZ-1** Prior to issuance of building permits for any new development or substantial redevelopment within the planning area that proposes to use large quantities of hazardous materials, the City shall review the project application for compatibility with existing and planned land uses. The review process shall focus on the location of existing and planned sensitive receptors (e.g., residential uses, schools, etc.) and determine whether the proposed usage would expose these sensitive receptors to unacceptable safety risks. If necessary, the City shall condition the proposed hazardous materials user to incorporate appropriate protection measures. **HAZ-2** The siting of industrial facilities which involve storage of hazardous, flammable or explosive materials shall be conducted in a manner that will	Less Than Significant

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Impact Before Mitigation	Proposed Mitigation Measure(s)	Level of Significance after Mitigation
release of hazardous materials into the environment. c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment. e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise		ensure the highest level of safety in strict conformance with the Uniform Fire Code, California Fire Code and other applicable regulations. **HAZ-3** New and substantially renovated development at or near the slopes of the Santa Rosa Mountains or the Indio Hills shall be thoroughly reviewed for potential exposure to a wildfire risk, and shall also be assessed for the potential of urban development in these areas to facilitate the spread of a wildfire into other developed portions of the community. **HAZ-4** The City shall periodically review and update the Local Hazard Mitigation Plan and the Emergency Operations Plan, including but not limited to fire protection, law enforcement, communications, alternative access, public health services, damage assessment and other emergency response parameters of Emergency Operations Plan. **HAZ-5** The City shall evaluate the full range of physical and other constraints to the effective implementation of the Emergency Operations Plan, shall develop or update strategic planning to address and minimize the effects of these constraints, and periodically report to the City Council on progress made in addressing these constraints. **HAZ-6** The City shall provide information on and encourage residents to plant and maintain drought-resistant, fire-retardant landscape species to reduce the risk of brush fire and soil erosion in areas adjacent to canyons; and to develop stringent site design and maintenance standards for areas with high fire hazard or soil erosion potential.	

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	**Level of Impact Before Mitigation**	**Proposed Mitigation Measure(s)**	**Level of Significance after Mitigation**
for people residing or working in the project area? f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			
Section 2.10 Hydrology and Water Quality			
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	Potentially Significant	**HYD-1** The City shall continue to partner with and support federal, State, and local agencies in regional planning and management initiatives to promote and enhance water quality in the Whitewater watershed. The City shall also participate in efforts to reduce storm water and urban runoff impacts to water quality, restoration efforts, and regional mitigation, monitoring, and public education programs. **HYD-2** The City shall require all new development to minimize the creation of new impervious to the maximum extent practicable. The City shall also prohibit post-project peak storm water runoff discharge rates from exceeding the estimated pre-project rate by requiring on-site retention.	Less Than Significant

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Impact Before Mitigation	Proposed Mitigation Measure(s)	Level of Significance after Mitigation
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: i. result in substantial erosion or siltation on- or off-site; ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or iv. impede or redirect flood flows?		**HYD-3** The City shall require all new developments to include facilities that intercept pollutants prior to storm events during construction to control dust in order to prevent discharge of debris or sediment from the development sites. **HYD-4** The City shall continue to update data and information on hydrologic conditions in the General Plan study area, and plan and pro-actively coordinate with local and regional flood control agencies in upgrading the City's local and regional drainage system. **HYD-5** The City shall monitor and periodically update the Master Plan of Drainage to reflect changes in local and regional drainage and flood conditions. **HYD-6** The City shall require all new developments to retain runoff from rainfall events up to and including the one-hundred-year, three-hour duration event. **HYD-7** The City shall require all new development to incorporate adequate flood mitigation measures, such as grading that prevents adverse drainage impacts to adjacent properties, on-site retention of runoff, and the adequate siting of structures located within flood plains. **HYD-8** The City will ensure that adequate, safe, all-weather crossings over drainage facilities and flood control channels are provided where necessary and are maintained for access during major storm events. **HYD-9** Require the installation and application of water-conserving technologies, in conformance with Section 17921.3 of the Health and Safety Code, Title 20, California Administrative Code Section 1601(b), and other applicable sections of Title 24 of the Public Code.	

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Impact Before Mitigation	Proposed Mitigation Measure(s)	Level of Significance after Mitigation
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?		**HYD-10** Provide information to developers, contractors, property owners and other appropriate parties on the usage and benefits of water conserving bathroom fixtures. **HYD-11** The City shall maintain, update and fully implement a water conserving landscape ordinance, which requires the use of natural and drought-resistant planting materials and efficient irrigation systems in new development. **HYD-12** Coordinate with the Coachella Valley Water District and Desert Water Agency to expand and strengthen educational materials and programs that inform residents of the methods and benefits of water-saving techniques available. **HYD-13** Coordinate with CVWD and DWA regarding the continued use and future expansion of recycled and reclaimed wastewater to serve new and existing development projects. **HYD-14** Coordinate with CVWD and DWA regarding the feasibility and financing of extending sewer facilities to the unsewered areas of the City. **HYD-15** California Regional Water Quality Control Board and other appropriate agencies to share information on potential groundwater contaminating sources and develop and maintain a system of record and information sharing with these agencies. **HYD-16** Evaluate all proposed land use and development plans for their potential to create groundwater contamination hazards from point and non-point sources and confer with other appropriate agencies to assure adequate review. **HYD-17** The City shall require all new development, public and private, to meet or exceed State storm water requirements and incorporate best management	

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES				
Impact	**Level of Impact Before Mitigation**	**Proposed Mitigation Measure(s)**		**Level of Significance after Mitigation**
			practices to treat, infiltrate, or filter storm water runoff and reduce pollutants discharged into the storm drain system during construction and post-construction, to the maximum extent practicable.	
Section 2.11 Land Use and Planning				
a. Physically divide an established community. b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	Potentially Significant	**LU-1**	Individual proposed projects, especially those involving a mix of residential and other uses, as well as those located nearby or adjacent to sensitive lands or uses, shall be fully evaluated during the project review process to assure that all land use compatibility issues are addressed and mitigated.	Less Than Significant
Section 2.12 Noise				
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;	Potentially Significant	**N-1**	The City shall develop and maintain an inventory of existing and future noise sources and areas of incompatibility and establish procedures, methods and standards to reduce the noise levels in these areas to acceptable levels.	Less Than Significant
		N-2	Prior to development plan approvals for new noise-sensitive development projects, the City shall require the submittal of noise impact and mitigation analyses to the Planning Department identifying practicable noise mitigation measures ensuring compliance with City standards.	
		N-3	Prior to development plan approvals for new residential and similar noise sensitive projects, the City shall require submittal of noise impact and	

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Impact Before Mitigation	Proposed Mitigation Measure(s)	Level of Significance after Mitigation
b. Generation of excessive groundborne vibration or groundborne noise levels; c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.		mitigation analyses to the Planning Department that demonstrates that the interior noise levels in all habitable rooms will satisfy the 45 dBA CNEL interior noise level standard of the General Plan and Title 24, Part 2, of the California Building Code. **N-4** Prior to development plan approvals for new noise-sensitive development projects within 150 feet of UPRR railroad tracks, the City shall require submittal of a final vibration study, which identifies all practicable mitigation measures to satisfy the 72 VdB noise-sensitive and 75 VdB non-noise-sensitive vibration level standards, as defined by the FTA for frequent rail events. **N-5** The City shall maintain, update and enforce the City's Noise Ordinance that establishes community-wide noise standards and identifies measures designed to resolve noise complaints. **N-6** The City shall require major stationary noise-generating sources throughout the City to install additional noise buffering or reduction mechanisms on development sites and/or within facilities to reduce noise generation levels to the lowest extent practicable prior to the renewal of conditional use permits or business licenses or prior to the approval and/or issuance of new conditional use permits for said facilities. **N-7** Parking lots, loading zones, and large trash bins shall be located the greatest distance practicable from adjacent residential properties, and designed is a manner that reduces associated noise impacts to levels allowable by the City's Noise Ordinance.	

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	**Level of Impact Before Mitigation**	**Proposed Mitigation Measure(s)**	**Level of Significance after Mitigation**
		N-8 The City Zoning Ordinance and development review standards shall be used to limit land use patterns and project designs to those that are compatible with the existing and long-term noise environment. **N-9** The City shall develop guidelines and minimal criteria requirements for noise analyses for future development projects and in compliance with the General Plan Noise Study. Studies shall evaluate project impacts and the effectiveness of proposed mitigation measures. **N-10** The City shall periodically review and amend the General Plan Land Use Map as appropriate to assure reasonable land use/noise level compatibility. **N-11** The City shall designate primary truck routes and ensure that they are clearly marked throughout the community and properly identified on mobile apps and other web-based platforms. Except for traffic providing location-specific services and deliveries, construction and delivery trucks shall be limited to those truck routes identified in the General Plan Circulation and Mobility Element. **N-12** Development projects which result in through-traffic in residential neighborhoods shall be discouraged through the development review process, and most viable alternative routes shall be identified and adhered to. **N-13** Where applicable, prior to the issuance of building permits for new development or other construction projects, when sensitive receiver locations are within 100 feet of proposed construction activities the City shall require the submittal of construction noise impact analysis and management plans that demonstrate:	

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	**Level of Impact Before Mitigation**	**Proposed Mitigation Measure(s)**	**Level of Significance after Mitigation**
		• Exterior construction noise levels at the closest sensitive receiver locations will satisfy the FTA 80 dBA L_{eq} residential and 85 dBA L_{eq} commercial 8-hour construction noise level standards and the 0.01 in/sec RMS vibration standard for sensitive uses. The site-specific study shall identify the necessary noise and/or vibration mitigation measures, if any, required to reduce exterior noise and vibration levels to below FTA noise and City vibration thresholds; and • Measures to reduce construction noise and vibration levels, such as those provided below, shall be incorporated in the final noise management plan, if necessary: ▪ Install temporary construction noise barriers at the development site boundary which break the line of sight for occupied sensitive uses for the duration of construction activities. The noise control barrier(s) must provide a solid face from top to bottom and shall: o Provide a minimum transmission loss of 20 dBA and be constructed with an acoustical blanket (e.g. vinyl acoustic curtains or quilted blankets) attached to the construction site perimeter fence or equivalent temporary fence posts; o Properly maintained with any damage promptly repaired. Gaps, holes, or weaknesses in the barrier or openings between the barrier and the ground shall be promptly repaired. ▪ Install sound dampening mats or blankets to the engine compartments of heavy mobile equipment (e.g. graders, dozers, heavy trucks). The dampening materials must be capable of a 5 dBA minimum noise reduction, must be installed prior to the use of heavy mobile construction equipment, and must remain installed for the duration of the equipment use. ▪ Construction activities requiring loaded trucks, large bulldozers, and jackhammers within 50 feet of nearby sensitive land uses (e.g.	

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Impact	Level of Impact Before Mitigation	Proposed Mitigation Measure(s)	Level of Significance after Mitigation
		residential, school, etc.) shall be minimized, or alternative equipment or methods shall be used, unless the vibration levels are shown to be less than the City threshold of 0.01 in/sec RMS.	
Section 2.13 Parks and Recreational Facilities			
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. b. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.	Potentially Significant	**PR-1** The City shall maintain and, where appropriate, upgrade existing facilities and diversify activities programming. **PR-2** The City shall periodically conduct a needs assessment for recreation programs and services with local residents. **PR-3** The City shall maintain and where possible expand use of joint-use agreements with the Palm Springs Unified School District to use school properties for public use during non-school hours. **PR-4** The 2005 Cathedral City Parks and Recreation Master Plan shall be revised to include an updated facilities and program analysis, and five to ten-year master plan for future park and open space lands and recreation programs. **PR-5** Concurrent with the update to the Parks and Recreation Master Plan, evaluate the distribution of existing and planned park and recreation lands, and the distribution of under-served or otherwise disadvantaged neighborhoods, and ensure that the need of all sectors of the community are well served. **PR-6** Upon completion of the Parks and Recreation Master Plan update the City shall adopt population-based parkland acreage standards for all sizes and types of parks and recreation areas.	Less Than Significant

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	**Level of Impact Before Mitigation**	**Proposed Mitigation Measure(s)**	**Level of Significance after Mitigation**
		PR-7 A broad range of sources of purchase financing and operating revenue, shall be investigated and shall include Development Impact Fees, Mello-Roos special districts, public/private ventures, state and federal grant opportunities, developer fees and inter-agency joint use agreements to supplement revenues collected for parks and recreation projects. **PR-8** The City shall improve and expand pedestrian and bicycle access and connections to regional parks and open space by implementing the City ATP, including the striping and/or construction of new and improved sidewalks and multi-class bikeways. **PR-9** The City shall work diligently to implement the General Plan Circulation and Mobility Element, the ATP and other components of the City's transportation plan that address safe pedestrian, bicycle and ADA access to transit connections and facilities, especially those located between residential neighborhoods and parks and open space. **PR-10** The City shall develop and explore programs that encourage bicycle commuting or testing of innovative facility designs to accommodate bicycles, scooters and LSEVs. **PR-11** Every reasonable effort shall be made to enhance accessibility throughout the planning of park areas and facilities, in accordance with the Americans with Disabilities Act (ADA), and include increased wheelchair accessibility and other requirements needed for the elderly and disabled. **PR-12** The City shall adopt design and planning guidelines that enhance safety in parks, playgrounds, streets, and public places.	

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Impact	**Level of Impact Before Mitigation**	**Proposed Mitigation Measure(s)**	**Level of Significance after Mitigation**
		PR-13 New development, redevelopment, and public works projects shall be required to incorporate applicable General Plan guidelines when developing streets, parks, playgrounds, and other public places. **PR-14** The City shall encourage or require the provision of recreation space in private development. **PR-15** Recreation space and amenities shall be required and provided in large developments, especially in areas of high population and building density. **PR-16** The City shall regularly review and, as necessary, update the Active Transportation Plan to ensure a comprehensive and convenient bicycle and pedestrian transportation network. **PR-17** The City shall identify and program physical improvements, such as crosswalks, sidewalk improvements, signs, and traffic signalization, that would make bicycle and pedestrian travel safer to parks and recreational facilities **PR-18** Every reasonable effort shall be made to provide children with safe and appealing opportunities for walking and bicycling to school in order to decrease rush hour traffic and fossil fuel consumption, encourage exercise and healthy living habits, and reduce the risk of injury. **PR-19** The City shall collaborate with CVAG, Coachella Valley jurisdictions, and other relevant agencies to support the completion of all planned CV Link segments and expansion of community connector links, particularly those in Cathedral City and neighboring communities.	

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Impact	**Level of Impact Before Mitigation**	**Proposed Mitigation Measure(s)**	**Level of Significance after Mitigation**
Section 2.14 Population, Housing, and Socio-Economic Resources			
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	Less Than Significant	No mitigation is required.	Less Than Significant
Section 2.15 Public Utilities and Service Systems			
Public Services a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable	Potentially Significant	<u>Fire and Police Services</u> **PS-1** The Fire and Police Departments shall coordinate with other City departments and schedule periodic review, access and update the Strategic Plans and Local Hazards Mitigation Plan. **PS-2** The Fire and Police Departments shall evaluate proposals for new development to assure adequate emergency access, the integration of defensible space principles, clear street name signage and numbering, internal circulation, fire flow and other safety design considerations. **PS-3** The City shall apply objective criteria, including appropriate minimum response time, the matching of services and facilities to local needs, and the	Less Than Significant

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Impact Before Mitigation	Proposed Mitigation Measure(s)	Level of Significance after Mitigation
service ratios, response times or other performance objectives for any of the public services: • Fire Protection • Police Protection • Schools • Parks • Other Public Facilities Utilities and Service Systems a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. (see Section 2.10 addressing stormwater) b. Have sufficient water supplies available to serve the project and reasonably		availability of alternative routes to serve target neighborhoods, and assure the optimal siting of future fire and police stations. **PS-4** The City shall evaluate current and potential methods of financing the expansion of fire and police services, including developer impact fees, assessment districts, and fire and police permitting fees for development occurring in high security or fire risk areas. **PS-5** City departments shall continue to collaborate between County Health and Human Services staff and law enforcement personnel to provide training and education on methods for addressing mental health patients in the criminal justice system. **PS-6** The City shall strictly enforce the California Building and Fire Codes, City Municipal Code and other applicable building standards in the course of reviewing development plans and conducting building inspections. **PS-7** The siting of facilities that produce, store, use or transport hazardous, flammable or explosive materials shall be conducted in a manner which assures the highest level of safety, in strict conformance with the California Building and Fire Codes, Municipal Code and other applicable regulations. **PS-8** An ongoing effort shall be made to enhance public awareness and participation in crime prevention, and encourage and promote the Neighborhood Watch Program, Citizens on Patrol and other community-oriented policing programs. The City shall develop new and expand existing educational programs dealing with personal safety awareness, such as neighborhood and commercial association watch/protection programs, and emergency preparedness and education for residents to register their cell phone with "Alert RivCo" at https://rivcoready.org/AlertRivCo used to alert	

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Impact Before Mitigation	Proposed Mitigation Measure(s)	Level of Significance after Mitigation
foreseeable future development during normal, dry and multiple dry years. c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.		Riverside County community members of urgent actions to take during disasters, such as earthquakes, wildfires, and floods. <u>Schools and Libraries</u> **PS-9** Review PSUSD and COD development proposals and environmental documentation, and otherwise coordinate with these institutions in planning new public school facilities as part of the City's continuing effort to provide enhanced educational opportunities for the community's residents. **PS-10** Routinely evaluate and update the Land Use Element and confer with potentially affected institutions to ensure that school and library sites are compatible with surrounding land uses, arterial roadways and significant noise generators. **PS-11** The City shall encourage and/or require the use of design and development techniques, such as sound attenuation walls, earthen berms and acoustical insulation in buildings, that mitigate potential traffic and other noise impacts on schools and libraries. **PS-12** The City shall proactively pursue agreements with the Palm Springs Unified School District regarding the shared purchase, lease, and/or joint use of land for school and recreational purposes. Provisions shall be made to optimize access to recreation facilities and open space for the community during non-school hours. **PS-13** The City shall coordinate with PSUSD, COD and the Riverside County Library System to ensure that safe routes and means to school and library facilities through the thoughtful implementation of the Circulation and Mobility Element and the Active Transportation Plan.	

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	**Level of Impact Before Mitigation**	**Proposed Mitigation Measure(s)**	**Level of Significance after Mitigation**
		Public Facilities **PS-14** The City shall periodically review its official Land Use Map and development patterns to assure the availability of adequate sites for future public and quasi-public buildings, infrastructure, and other facilities. The City shall confer and coordinate with utilities and other public and quasi-public agencies regarding their long-term needs. **PS-15** Establish and implement a Capital Improvement Program review and update schedule, which includes annual reviews, analysis and comprehensive revisions every five years. **PS-16** All new maintenance and utility facilities (and their signage) shall be integrated into the surrounding environment using landscape treatments, architectural elements, and/or other appropriate design mechanisms. Design plans shall be reviewed by the Planning Department. **PS-17** Consult and coordinate with Southern California Edison regarding the costs, methods, potential barriers to, and feasibility of undergrounding electrical power lines. **PS-18** Critical structures and facilities (including civic administrative center, hospitals, fire stations, police stations, schools and major communications facilities) shall be restricted from geologically and hydrologically hazardous areas, to the greatest extent practical. **PS-19** Investigate the feasibility of expanding the City's existing corporate yard to accommodate larger office space, parking lots, and maintenance facilities.	

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	**Level of Impact Before Mitigation**	**Proposed Mitigation Measure(s)**	**Level of Significance after Mitigation**
		PS-20 Continue to investigate the feasibility of constructing a new community center, including potential sites, constraints, and funding opportunities. **PS-21** Establish a facilities upkeep and restoration master plan for City-owned facilities. <u>Water, Sewer and Utilities</u> **PS-22** Confer and coordinate with CVWD and DWA on methods to finance the upgrading and expansion of the sewer and domestic water systems, including the establishment of assessment and/or community facilities districts that also provide financial assistance for economically disadvantaged neighborhoods. **PS-23** The City shall support the efforts of DWA and CVWD to construct and expand facilities that treat and distribute reclaimed water. **PS-24** The City shall explore avenues for the expansion of roof-top solar and utility-scale wind energy development, and the implementation of domestic and utility-scale storage systems. **PS-25** The City shall confer and coordinate with SCE to identify existing above-ground power lines that are candidates for cost-effective undergrounding, with a special emphasis on those occurring along City image corridors.	
Section 2.16 Transportation			
a. Conflict with a program, plan, ordinance or policy addressing the circulation system,	Potentially Significant	**TM-1** Cathedral Canyon Drive from Perez Road to Ramon Road shall be identified as a special study corridor for transportation/mobility. The City shall study this corridor and monitor its operations on an ongoing basis to develop recommendations for improvements. Specific tasks shall involve	Less Than Significant

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Impact Before Mitigation	Proposed Mitigation Measure(s)	Level of Significance after Mitigation
including transit, roadway, bicycle and pedestrian facilities. b. Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b). c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). d. Result in inadequate emergency access.		identifying the corridor's strengths, weaknesses, and opportunities for improvements. Recommendations should balance the needs to improve mobility, safety, parking, and the area's appearance. **TM-2** The Public Works Department shall establish and implement a prioritized roadway and intersection study and analysis program to assure the provision of adequate future rights-of-way and facilities at critical roadways and intersections. This program may be incorporated into the five-year Capital Improvements Program, which should be reviewed and amended, as necessary, annually. **TM-3** A planning and engineering project review checklist will be developed, which addresses all major roadway components and ensures compliance with the provisions of the Circulation and Mobility Element and the Active Transportation Plan. The checklist will be used in reviewing development proposals. **TM-4** Identified roadway segments and intersections with the potential to operate at LOS E or worse at General Plan buildout shall be designated as "Special Study Zones" where detailed analysis shall be conducted to minimize further degradation of operating conditions at these locations and to ensure that they operate at acceptable LOS at General Plan buildout. **TM-5** The City shall encourage and if necessary, require developers to explore alternative designs of streets and other transportation facilities by providing, as appropriate, information on Complete Streets design concepts and standards that may meet basic performance and safety needs, while still being responsive to the New Urbanism principles. **TM-6** The City shall apply to all development plans the adopted roadway classifications, and implement the Active Transportation Plan to maximize	

TABLE M-1: SUMMARY OF IMPACTS AND MITIGATION MEASURES			
Impact	**Level of Impact Before Mitigation**	**Proposed Mitigation Measure(s)**	**Level of Significance after Mitigation**
		walking, bicycling, and use of LSEVs, and assure safe and efficient connections to City-wide and regional multi-modal facilities. **TM-7** When initiating review of development proposals, the City shall consult and coordinate with SunLine and solicit comments and suggestions on bus stops and other public transit facilities and design concepts, including enhanced handicapped access, that should be integrated into project designs.	

Cathedral City

City of Cathedral City General Plan Update

ENVIRONMENTAL IMPACT REPORT

1.0 INTRODUCTION AND PROJECT DESCRIPTION

1.1 Introduction

The following discussion described the CEQA Lead Agency for the Cathedral City General Plan Update and the Active Transportation/NEV Plan (Project), provides a comprehensive summary project description, describes the location and geographic limits for the planning area, the purpose and need for the subject analysis, and a statement of Project objectives. The CEQA process and details regarding this EIR are also provided.

Lead Agency
The City of Cathedral City (City) is the Lead Agency responsible for the preparation of this Draft Environmental Impact Report (EIR or DEIR) pursuant to the California Public Resources Code Sections 21000-21189.57, and the 2018 California Environmental Quality Act (CEQA) Guidelines Sections 15000-15387, as amended. CEQA defines "Lead Agency" as the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment (State CEQA Guidelines Section 15367). The proposed action evaluated in this EIR constitutes a "project", as defined by Section 15378 of the State CEQA Guidelines.

The Lead Agency contact person and mailing address regarding this Project is: Robert Rodriquez, Director of Planning, City of Cathedral City, 68-700 Avenida Lalo Guerrero, Cathedral City, CA 92234. The City's phone number is: (760) 770-0344. Mr. Rodriguez's email address is: rrodriguez@cathedralcity.gov.

Background and Project Summary
All incorporated cities and all counties are required by the California Government Code to prepare comprehensive, long-term general plans, which direct development of the community. As an official document of the City of Cathedral City, the Comprehensive General Plan provides the goals, policies, programs and maps to guide the development of the City and to preserve its valued assets, resources and quality of life. In addition to goals and policies, the General Plan includes issues discussions, factoids, diagrams and maps, tables and charts that provide direction for the prudent and conscientious management of existing and future development.

Cathedral City was incorporated in 1981 and initially relied upon the then-prevailing Riverside County General Plan for land use and other General Plan management. Most recently, the City General Plan was updated in 2002 and again in 2009. The Project is a comprehensive update to the City's General Plan and includes a new Active Transportation Plan (ATP). Following the State of California 2017 General Plan Guidelines, the General Plan includes traditional and new elements.

This Draft Environmental Impact Report evaluates a wide range of environmental issues associated with the implementation of the General Plan update and the Active Transportation Plan. These include land use compatibility, traffic/circulation/mobility, flooding and drainage, geotechnical and seismic safety, air quality and greenhouse gases, biological and archaeological resources, noise impacts and environmental justice. Other areas of concern include the availability of public services and facilities and the socio-economic impacts associated with General Plan implementation. The proposed General Plan Update is also herein referred to as the Proposed Project, as distinguished from the Project Alternatives.

Section 2.0 of this document evaluates the potential effects associated with the implementation of the Proposed Project. It characterizes the environmental setting of the region and identifies the environmental resources and constraints within which the General Plan study area occurs. Existing regional infrastructure, land use patterns and natural resources are also described in this section.

Section 2.0 also provides a comprehensive evaluation of the various areas addressed in the General Plan, including land uses, transportation systems, and environmental resources and conditions specific to the City General Plan study area. It discusses potential impacts to the physical environment associated with the adoption of the proposed General Plan update. This evaluation includes analysis of population, existing and planned patterns of development, alterations to the physical environment, and the availability of public services and facilities. Some aspects of the General Plan could result in significant environmental impacts. Therefore, avoidance, minimization and mitigation measures are provided, where appropriate, to reduce these impacts to insignificant levels, where possible.

Section 3.0 provides an analysis of three alternatives to the Proposed Project, including the No Project alternative. Subsequent sections of the DEIR include discussions of unavoidable significant impacts, irreversible and irretrievable commitment of resources, growth-inducing impacts, and short-term use and long-term productivity of the affected environment. The various DEIR discussions are further described below.

1.2 Project Location and Limits

The “Proposed Project” is the Comprehensive General Plan Update for the City of Cathedral City and inclusive of the aforementioned Active Transportation Plan. The Project planning area is limited to the current Cathedral City corporate limits and encompasses 14,557± acres or approximately 22.7 square miles (see Table 1-2, below). It does not include the City’s Sphere of Influence or other unincorporated lands in the planning area. The Project includes changes to land use designations and circulation system, new and integrated elements, and new goals, policies and programs for all General Plan Elements.

The Project area is generally bounded by the Rancho Mirage city limits and unincorporated county lands on the east, the Palm Springs and Desert Hot Springs city limits on the west, Palm Springs and Rancho Mirage corporate lands to the south, and unincorporated Riverside County lands on the north. The Project planning area includes all or portions of the following:

- Sections 19, 20, 21, 22, 27, 28, 29, 30, 32, 33, 34 in Township 3 South, Range 5 East
- Sections 03, 04, 05, 08, 09, 10, 11, 13, 14, 15, 16, 17, 21, 22, 27, 28, 29, 32, 33, 34 in Township 4 South, Range 5 East
- Sections 05, 04, 09 in Township 5 South, Range 5 East

Also see the United States Geological Survey (USGS) 7.5-minute Cathedral City, California quadrangles. Also, please see Exhibits 1-1: Regional Location Map, 1-2: Area Location Map, 1-3: Project Vicinity and 1-4: Project Planning Area.

1.3 Purpose and Need

Cathedral City is a Charter City with a Council-Manager form of government and was incorporated in 1981. The existing General Plan was comprehensively updated and adopted in 2002 and subsequent updates were performed in 2009. Since that time, the Housing Element has been updated regularly as required by State law, with the current version having been adopted in November 2014. Other elements have been updated as a result of expansions of the City's corporate boundaries (annexation) and through minor amendments, but have not been comprehensively revised since 2002. The majority of the amendments have been to the Land Use Element. This General Plan update is not envisioned as a wholesale rewrite of all elements, but rather a rewrite of some key elements, a refresh of others, and a consolidation of several recent planning documents into this single, comprehensive document.

1.4 Statement of Project Objectives

CEQA Guidelines Section 15126.6 states that an EIR must describe and evaluate a reasonable range of alternatives to a project that would feasibly attain most of the project's basic objectives, but that would avoid or substantially lessen any identified significant adverse environmental effects of the project. The EIR should also evaluate the comparative merits of the Project. Specifically, Section 15126.6 sets forth criteria for selecting and evaluating alternatives. A Draft EIR supports a determination of No Significant Impacts from implementation of the Project with the implementation of mitigation measures set forth in this EIR.

Pursuant to CEQA Guidelines Section 15124(b), the project description includes a statement of objectives. The purpose of the objectives is to assist the City in developing a reasonable range of alternatives to evaluate in this EIR. These objectives are intended to explain the purpose of the Project, and to aid the decision-makers in preparing findings or a statement of overriding considerations, if necessary.

The Project objectives are intended to address the purpose of the *General Plan Update* and the Active Transportation Plan (ATP) Plan. The City has identified the following list of criteria as the objectives for the Project.

- An updated General Plan that ensures that associated City ordinances, including the Zoning and Subdivision Ordinances, are maintained in conformance with the General Plan
- The continued use of Specific Plans as a preferred method of detailed and systematic implementation of the General Plan for large or complex planning areas
- The periodic examination and review of the long-term implications of General Plan policies and programs as they relate to the City's ability to provide public services and facilities
- A cooperative planning process with Riverside County, assuring an effective advisory role regarding any and all development and other land use planning issues or proposals within or in close proximity to the City's Sphere of Influence
- A General Plan that assures that properly filed development applications shall be processed in an expeditious and timely manner
- Master facilities plans that address the recreation, drainage/flood control, infrastructure, utility management, traffic control, and other facility needs of the community
- In-fill development within already urbanized areas of the corporate boundaries of the City
- Expansion of new development that is logically phased and, as appropriate, guided by the development of existing and new Specific Plans
- Ensure opportunities for review and comment on development proposals through public hearing notices sent to owners of property located at least within 300 feet of development proposal sites
- Cooperative public/private ventures and partnerships that better provide public services and facilities that benefit the community

1.5 Project Description: 2040 General Plan Update & AT/NEV Plan

Updated General Plan

The subject General Plan update has a planning horizon of 2040. It is intended to ensure that the City's existing and planned pattern of land uses, its transportation network, infrastructure and other areas of community planning are compatible with long-term physical and regulatory environments, and the changing and evolving economy. Since incorporation in the early 1980s, the City has allowed the use of Specific Plans to address area-wide planning. Over time, many of these Specific Plan areas have remained vacant, have only partially developed or have not developed in the manner envisioned. As a consequence, the City has revisited each of its Specific Plans and has tentatively identified several that may no longer serve an effective planning purpose. These have been identified as candidates for rescinding.

The updated General Plan Land Use Map describes and designates the distribution of land uses by type, location, intensity and/or extent of use. Uses considered are diverse and include: residential, commercial, industrial, open space, recreation, public buildings and facilities, and other categories of public and private land uses. Prior to the adoption of the Cathedral City General Plan comprehensive update, the City utilized the land use designations and assignments adopted in the 1987 Plan. Land use categories and their assignment, as well as the City corporate limits, have evolved through two previous General Plan updates (2002 and 2009). The Project includes a comprehensive assessment of land uses and their distribution in 2018 and was conducted using a computer-based geographic information system (GIS), aerial photo analysis, field surveys and extensive consultations with residents and property and business owners.

Table 1-2 of this DEIR provides statistical summaries of land uses for the proposed General Plan update. Overall land use goals, policies and programs are described in the DEIR and can all be found in the Draft General Plan and AT/NEV Plan.

Active Transportation Plan (ATP)

Concurrent with the preparation of the General Plan *Circulation and Mobility Element*, the City has also prepared an Active Transportation Plan. The ATP is a part of the circulation element and implements pathway classifications for numerous streets in the City, assigning designations and providing improvement standards and guidelines that implement a Complete Streets program for the City. The ATP is designed to provide greater pedestrian, bicycle and neighborhood electric vehicle (NEV) and other low-speed electric vehicles (LSEV) access to the City roadway system and off-street network including the CV Link regional multi-modal pathway.



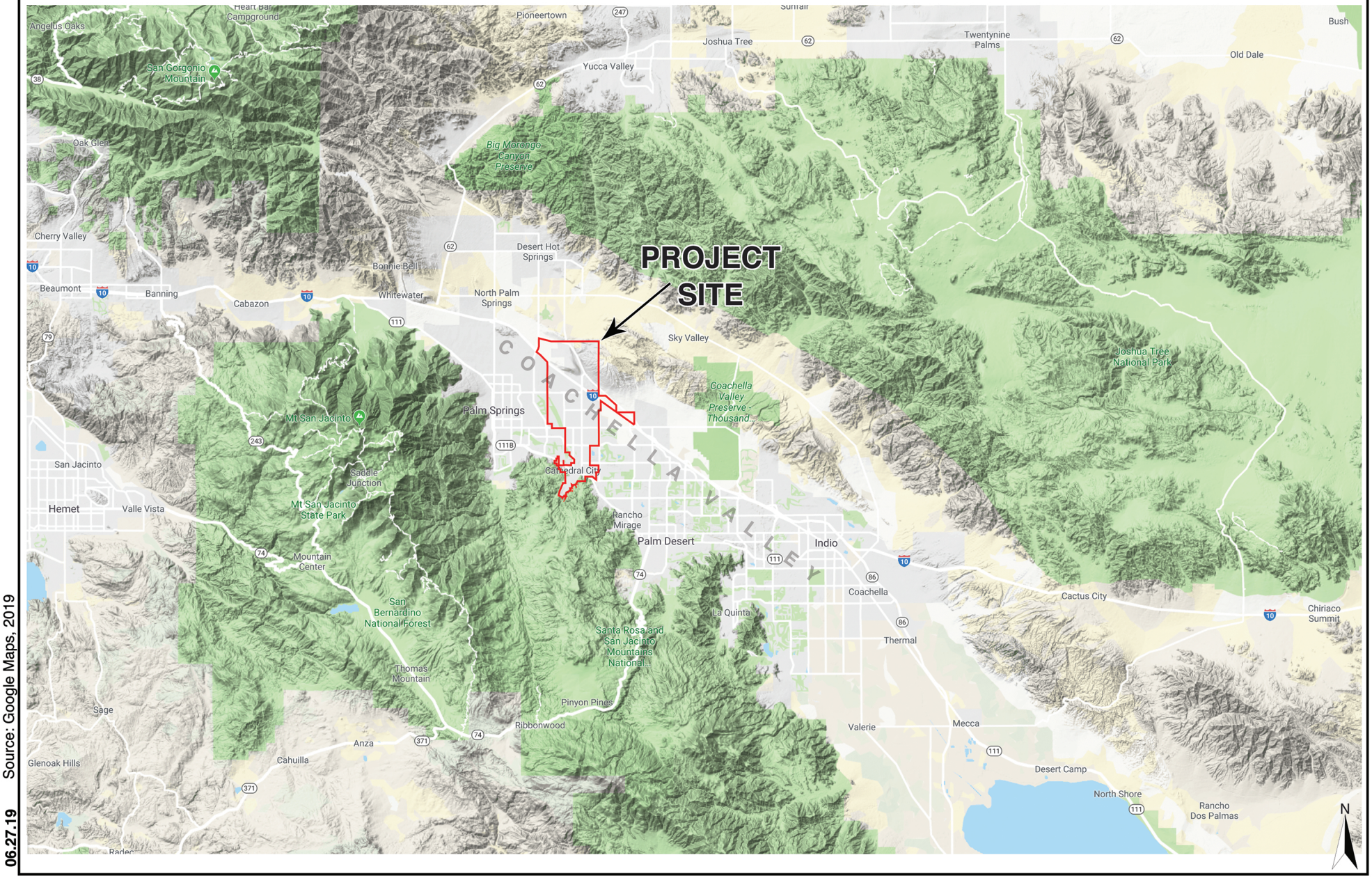
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City of Cathedral City General Plan EIR
Regional Location Map
Cathedral City, California

Cathedral City

Exhibit
1-1



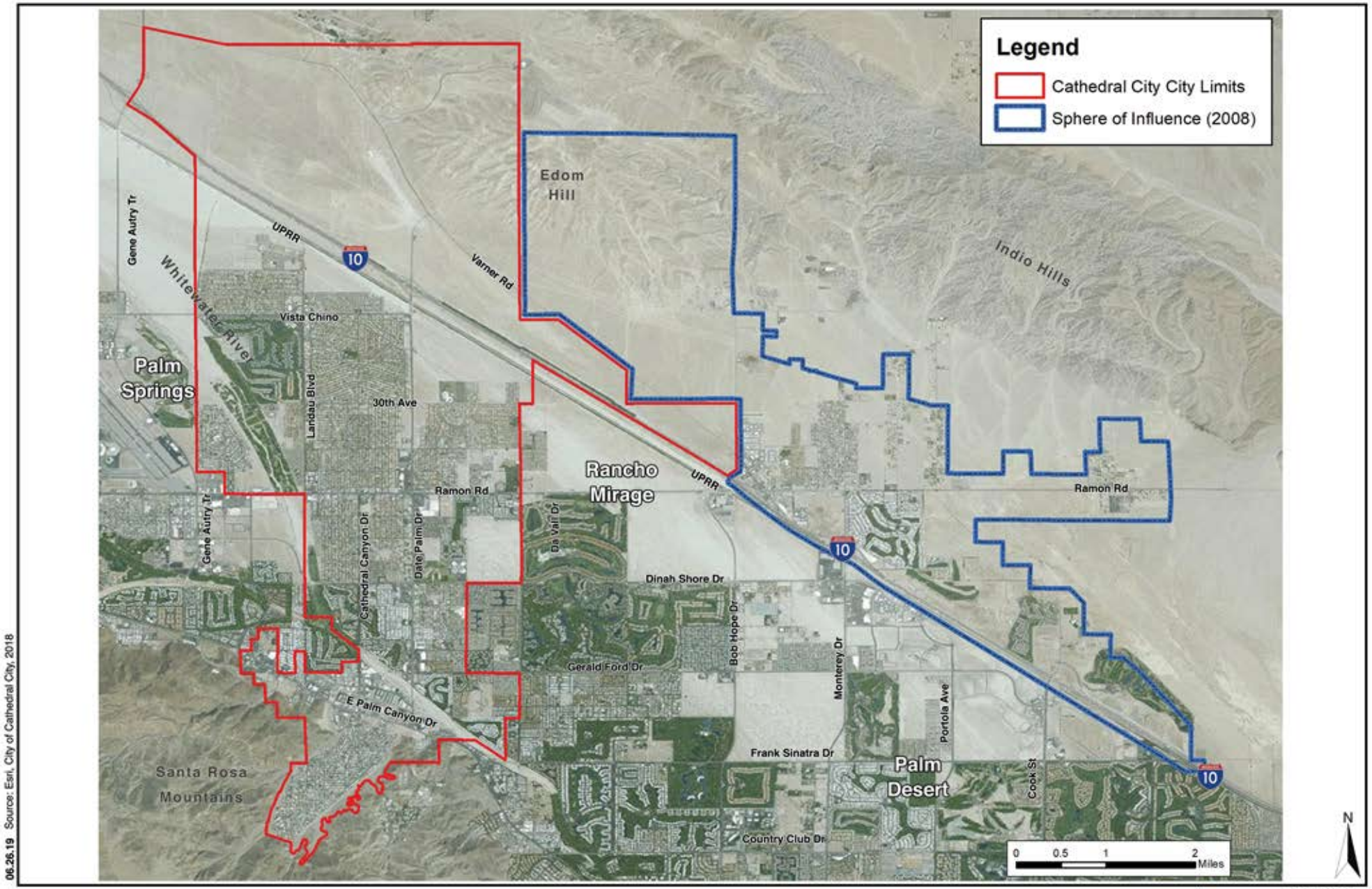
06.27.19 Source: Google Maps, 2019

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City of Cathedral City General Plan EIR
Area Location Map
Cathedral City, California

Cathedral City

Exhibit
1-2



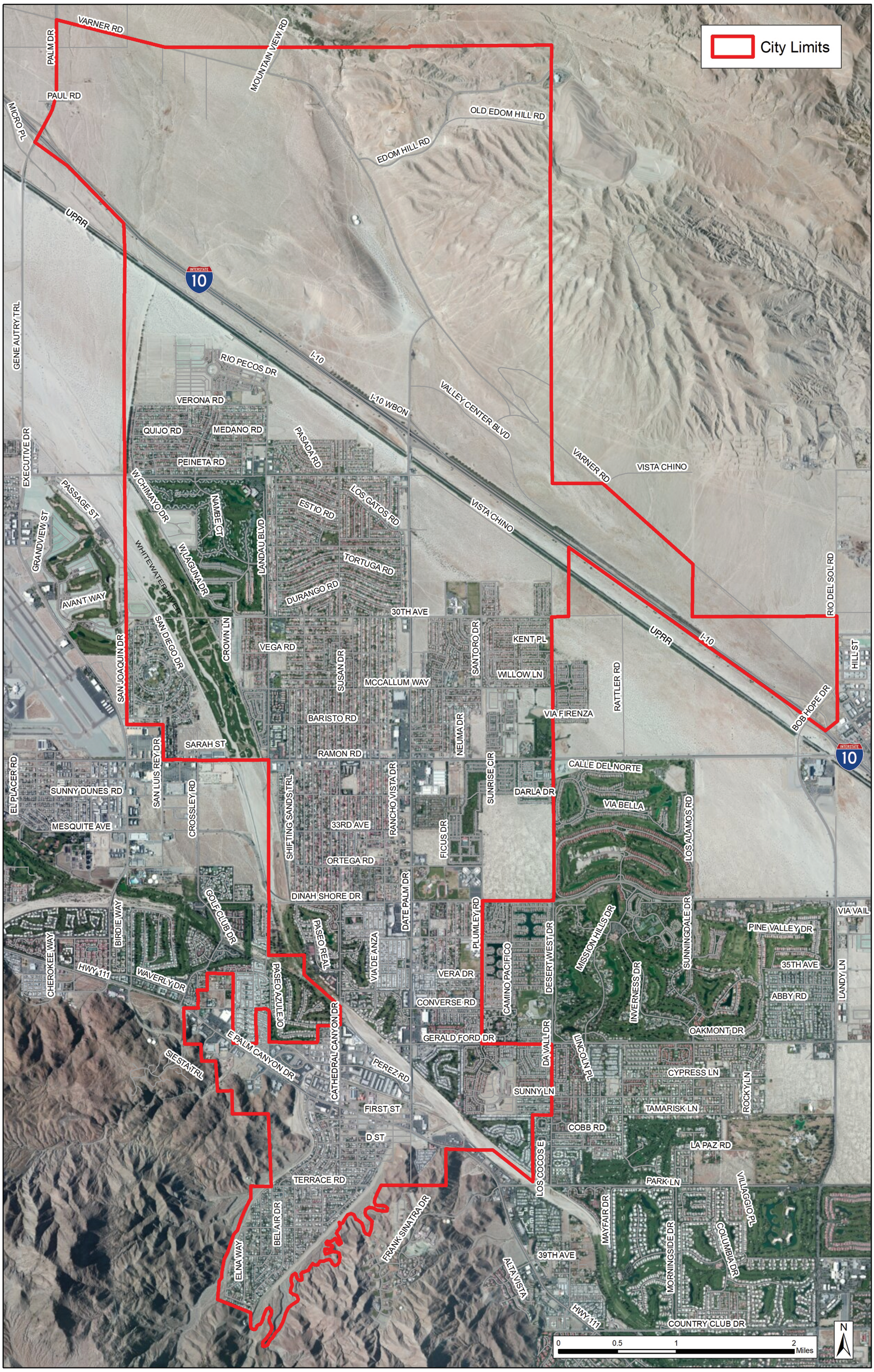
06.26.19 Source: Esri, City of Cathedral City, 2018

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City of Cathedral City General Plan EIR
City Limits and Sphere of Influence
Cathedral City, California

Cathedral City

Exhibit
1-3



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City of Cathedral City General Plan EIR
Project Planning Area
Cathedral City, California

Cathedral City

Exhibit
1-4

1.6 CEQA Process

California Environmental Quality Act

In accordance with Sections 15063, 15064 and 15065 of the State CEQA Guidelines, the City prepared an Initial Study (2018) to identify potentially significant impacts associated with the proposed General Plan and ATP (the Project or Proposed Project). Based on the preliminary assessment, the City determined that an EIR should be prepared to evaluate the potential environmental effects associated with the implementation of the Project. (Refer to Appendix A).

The EIR has been prepared in accordance with CEQA (as amended), pursuant to State CEQA Guidelines §15121 (Informational Document):

- *An EIR is an informational document which will inform public agency decision makers and the public generally of the significant environmental effect of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project. The public agency shall consider the information in the EIR along with other information which may be presented to the agency.*
- *While the information in the EIR does not control the agency's ultimate discretion on the project, the agency must respond to each significant effect identified in the EIR by making findings under Section 15091 and if necessary, by making a statement of overriding consideration under Section 15093.*
- *The information in an EIR may constitute substantial evidence in the record to support the agency's action on the project if its decision is later challenged in court.*

Under State CEQA Guidelines §15123, this section presents a summary of the Project evaluated in this Draft EIR, including those that would avoid potentially significant effects; issues of concern/areas of controversy known to the Lead Agency; and issues to be resolved, including the choice among alternatives and how best to mitigate the potentially significant effects. Alternatives to the Proposed Project are analyzed in Section 3.0 of this EIR.

The reader should review, but not rely exclusively on the Executive Summary as the sole basis for judgment of the Proposed Project. The complete DEIR should be consulted for specific information about the potential environmental effects and mitigation measures to address those effects.

1.6.1. Notice of Preparation and Public Scoping Meeting

The process of determining the appropriate scope, focus, and content of an EIR is known as "scoping" (Public Resources Code 21083.9 and CEQA Guidelines Section 15082). The first step in the scoping process is conducting a preliminary assessment of the Project and the issuance of a Notice of Preparation (NOP) of an Environmental Impact Report to solicit input from agencies and other parties of interest, including the general public.

When a Lead Agency determines that an EIR is required for a Project, a Notice of Preparation (NOP) must be prepared and submitted to the State Clearinghouse. The purpose of the NOP is to provide responsible and trustee agencies, and the public, with sufficient information describing the Proposed Project and the potential environmental effects, to enable interested parties/persons to make a meaningful response. The City issued the NOP for the General Plan update on August 3, 2018, and the 30-day public review period concluded on September 3, 2018. The NOP (see Appendix A) was submitted to the Riverside County Clerk for 30-day posting.

The NOP was also submitted to the State of California Governor's Office of Planning and Research, State Clearinghouse (SCH), which circulated the NOP to state agencies for a 30-day review and comment period. A public notice was also published in a newspaper of local circulation. A wide variety of comments were received from City residents and land owners, public agencies and others (see Appendix A). In general, comments were limited to requesting that further detail be provided in the EIR, and immediate responses were not required.

Public Scoping Meetings were held on May 1, 8, 15 and 22, 2018 with the purpose of educating and informing the public about the proposed General Plan update, addressing public questions and concerns, and collecting input on the CEQA process. This and additional public input were also collected at a noticed July 24, 2018 public City Council meeting, and at joint study sessions of the City Council and Planning Commission on September 26, 2018 and January 9, 2019.

1.6.2. Draft EIR

This Draft EIR is being circulated along with the Notice of Availability and Notice of Completion for public review for a 45-day review period, in accordance with State CEQA Guidelines Section 15085.

1.6.3. Final EIR

Following the public review and comment period, the City will prepare written responses to the written comments received on the Draft EIR. Where necessary, the Draft EIR may be revised, as appropriate, and together with the Response to Comments, will constitute the Final EIR. In accordance with State CEQA Guidelines Sections15090-15097, the City Council will then consider certifying the Final EIR during a noticed public hearing.

Following Final EIR certification, the City may proceed with consideration of approval actions, including adoption of the General Plan Update and the Active Transportation Plan. CEQA also requires the adoption of findings prior to approval of a project where a certified Final EIR identifies significant unmitigated environmental effects that would be caused by implementation of a Project.

If the Project that is approved would result in the occurrence of significant unmitigated effects that are identified in the Final EIR and that cannot be avoided or substantially lessened, the City shall so state in writing in a "statement of overriding considerations" the specific reasons to support its action based on the Final EIR and/or other information in the record. If the Project is approved, the City will file a Notice of Determination (NOD) with the County Clerk and State Clearinghouse within five working days following Project approval.

1.6.4. Mitigation Monitoring and Reporting

CEQA requires lead agencies to adopt a Mitigation Monitoring and Reporting Program (MMRP) at the same time the Final EIR is certified. The MMRP is a verification tool for use by the Lead Agency that lists the mitigation program task, entity responsible for implementation, timing of compliance, and record of date of compliance. Once the Final EIR and MMRP are certified, the mitigation measures become conditions of the Project approval. Mitigation Monitoring and Reporting Program measures have been incorporated in Section 2 of this DEIR, where necessary.

1.6.5. Organization of the Draft EIR

The organization of the Draft EIR is as follows:

Executive Summary & Mitigation Monitoring and Reporting Program (Environmental Matrix)

Section 1 – Introduction and Project Description. The section includes a description of the Proposed Project, summarizes General Plan goals, policies and programs, and sets forth land use plans and quantities for the Project. Alternatives considered that may reduce or avoid the significant impacts of the Project are described and analyzed in Section 3.0 of this EIR. Areas of controversy are also identified in this document. This section describes the CEQA process and the organization of this document.

Section 2.0 – Environmental Setting, Impacts and Mitigation Measures. The environmental setting discussion provides important background data and information on all CEQA analysis categories on a regional and planning area basis. This section of the EIR serves to establish the physical context within which the Proposed Project is being considered and analyzed. It also presents the physical and regulatory setting by environmental resource category, identifies impact significance criteria, and analyzes potential impacts associated with implementing the Proposed Project, including potential cumulative impacts. Mitigation measures and monitoring and reporting programs are identified, where applicable. Please note that environmental justice issues are addressed in Section 2.14. Section 2.0 analyzes the following resource areas:

- Introduction (Section 2.1)
- Aesthetics (Section 2.2)
- Agriculture and Forest Resources (Section 2.3)
- Air Quality and Greenhouse Gases (Section 2.4)
- Biological Resources (Section 2.5)
- Cultural and Tribal Resources (Section 2.6)
- Energy and Mineral Resources (Section 2.7)
- Geology and Soils (Section 2.8)
- Hazards, Wildfires & Hazardous Materials (Section 2.9)
- Hydrology and Water Quality (Section 2.10)
- Land Use and Planning (Section 2.11)
- Noise (Section 2.12)
- Parks and Recreational Resources (Section 2.13)
- Population, Housing and Socio-Economic Resources (Section 2.14)
- Public Utilities and Services Systems (Section 2.15)
- Transportation (Section 2.16)

Section 3.0 – Project Alternatives Analysis. This section describes alternatives to the Proposed Project and compares their impacts to those of the Project. This section also identifies which alternative is environmentally superior on a categorical basis and overall. The three alternative projects analyzed include Alternative 1: More Intense Alternative, Alternative 2: Less Intense Alternative, and Alternative 3: No Project Alternative (current General Plan).

Section 4.0 – Unavoidable Significant Impacts. This section discusses significant environmental effects that may not be avoided if the Project is implemented, and significant irreversible environmental changes associated with the Project even with feasible alternative actions. This section also provides a summary of cumulative impacts that are discussed in the resource sections.

Section 5.0 – Irreversible/Irretrievable Commitment of Resources. This section evaluates the Project's irreversible or irretrievable effects on natural resources, including but not limited to energy and water, and the level of commitment of these resources associated with the Project.

Section 6.0 – Growth Inducing Impacts. This section discusses the Project's potential to induce growth both locally and regionally.

Section 7.0 – Short-term Use Versus Long-Term Productivity

Section 8.0 – Organizations, Persons and Documents Consulted. This section describes and lists the various parties, agencies, documents and other resources used in preparing the subject EIR.

Technical Appendices - provides technical reports and information in support of the above sections and are identified in the Table of Contents.

1.7 Responsible Agencies

Under CEQA, provision is made for state and other agencies to act as "Responsible Agencies". Per California Public Resources Code Section 21069, a "Responsible Agency" is a public agency, other than the Lead Agency, which has responsibility for carrying out, approving or permitting a project. The authority of responsible agencies that may have responsibility for carrying out or approving a project and for complying with CEQA is limited to that part of the project that they will be called upon to carry out or approve (Public Resources Code Sections 21140(c), 21153(c); CEQA Guidelines Sections 15041(b), 15042).

Among others, the California Department of Fish and Wildlife and the California Regional Water Quality Control Board (Colorado River Basin) are CEQA Responsible Agencies and may issue permits and approvals for projects made possible by and analyzed in the subject EIR (CEQA-tiering). The California Department of Transportation (Caltrans) and the County of Riverside may also serve as Responsible Agencies under CEQA and may be able to rely on the subject EIR, at least in part, for issuance of encroachment permits or other permitting or regulatory actions.

1.8 Project's Relationship to Other Plans

The Project is directly related to other local and regional plans, including General Plans of adjoining jurisdictions, regional transportation plans including the Congestion Management Plan and the SCAG and CVAG regional transportation plans. The Project is also related to and serves as a city-specific extension of the CVAG Active Transportation Plan through the City's Active Transportation Plan, which is a part of this Project.

Other Regional Plans

The Project is related to or must accommodate other plans developed in the Coachella Valley. These include the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP), the South Coast Air Quality Management District (AQMD) Air Quality Management Plan, and the Coachella Valley PM10 State Implementation Plan.

1.9 Proposed Project

Introduction

The "Project" is the Comprehensive General Plan Update for the City of Cathedral City and the City Active Transportation Plan. The General Plan study area address 14,557± acres or approximately 22.7 square miles within the City's corporate limits. The analysis also considers but does not specifically analyze the 8,425± acres (13.16 square miles) in the City Sphere of Influence or other unincorporated lands. Therefore, the total planning area analyzed in this EIR encompasses the 14,557± acres comprising the City's corporate limits in 2018. The Project includes changes to land use designations and circulation system, new and integrated elements, and new goals, policies and programs for all General Plan Elements.

Updated General Plan

The subject General Plan update has a planning horizon of 2040. It is intended to ensure that the City's existing and planned pattern of land uses, transportation infrastructure and other areas of community planning are compatible with long-term physical and regulatory environments, and the changing and evolving economy. Since incorporation in 1981, the City has frequently used Specific Plans to address area-wide planning. Over time, many of these Specific Plan areas have remained vacant, while others have only partially developed or have not developed in the manner envisioned. As a consequence, the City has revisited each of its Specific Plans and has considered several that may no longer serve an effective planning purpose. Following adoption of the General Plan update, many of these Specific Plans will be reconsidered.

The updated General Plan Land Use Map describes and designates the distribution of land uses by type, location, intensity and/or extent of use. Uses considered are diverse and include: residential, commercial, industrial, open space, recreation, public buildings and facilities, and other categories of public and private land uses. Prior to the adoption of the Cathedral City General Plan comprehensive update, the City utilized the land use designations and assignments adopted in the 1987 Plan. Land use categories and their assignment, as well as the City corporate limits, have evolved through two previous General Plan updates (2002 and 2009). The Project includes a comprehensive assessment of land uses and their distribution in 2018 and was conducted using a computer-based geographic information system (GIS), aerial photo analysis, field surveys and extensive consultations with residents and property and business owners.

Table 1-2 of this DEIR provides statistical summaries of land uses for the proposed General Plan update. Overall land use goals, policies and programs are described in the DEIR and can all be found in the Draft General Plan and AT/NEV Plan.

Table 1-1 City of Cathedral City Draft General Plan Proposed Land Use Designations

Land Use Designation (Density)	Purpose of Land Use
Residential	
(HR) Hillside Reserve (0-1 du/20 ac)	This designation provides for development densities of one dwelling unit per 20 acres. Development could be precluded on these lands due to topographic, hydrologic, aesthetic or other constraints. In such cases, it may be possible for development rights to be preserved by density transfer or similar mechanism.
(RE) Estate Residential (0-2 du/ac)	The residential estate designation provides for larger lot subdivisions with single-family residential development. This designation is envisioned for rural areas, as well as lands which may also be constrained by topography or other natural restrictions. This type of development may also incorporate a "greenbelt" buffer to help define the City's urban boundary.
(RL) Low Density Residential (2-4.5 du/ac)	The Low-Density Residential designation provides for single-family residential development on individual lots typically ranging from about 7,500 to 20,000 square feet. These lands serve to buffer more dense residential development from estate residential uses and may be appropriate in areas with some site constraints.
(RR) Resort Residential (3-6.5 du/ac)	This low-density designation is intended to accommodate single-family and attached residential development in a master planned resort setting. On-site amenities typically include golf courses, tennis and swimming facilities, as well as tourist/resort-serving commercial uses. This designation also allows hotels/motels and ancillary visitor and tourist-serving commercial uses.
(RM) Medium Density Res. (4.5-10 du/ac)	This designation provides for moderately low to medium density subdivisions and Planned Unit Developments (PUDs). It serves to transition between lower and more moderate (medium) residential densities. Product types typically range from single-family to multi-family development, with much of existing development being duplex units on 8,000 square foot lots.

(RMH) Medium-High Density Res. (11-20 du/ac)	This designation allows for a range of attached housing, including apartments and condominiums. It is also suitable for planned communities and affordable and senior housing, where smaller units and higher densities may be appropriate. Multi-family development provides for PUDs comprised of a varying range of residential types and on-site amenities. These lands are typically located in proximity to neighborhood commercial uses, thereby maximizing pedestrian and other multi-modal access to these essential services. Mobile home parks or subdivisions with PUD-type development may also be allowed.
(RH) High Density Res. (20-24 du/ac)	This designation allows for the greatest diversity and highest density of residential development, providing for a full range of multi-family dwellings, including apartments and condominiums. It is also suitable for planned communities and affordable and senior housing, where smaller units and higher densities may be appropriate. Multi-family development provides for PUDs comprised of a varying range of residential types and on-site amenities. These lands are typically located in proximity to neighborhood commercial uses, thereby maximizing pedestrian and other non-motorized access to these essential services.
(PUD) Planned Unit Developments	While not a land use designation, Planned Unit Developments (PUDs) consolidate areas for structures, common open space and recreation areas, and integrate access onto private internal roadways. PUDs permit the transfer of densities from open space/recreation areas provided within a development, thus consolidating open space. The purpose of the PUD is to promote planned residential development and amenities beyond those typically provided within conventional subdivisions. PUDs are also intended to achieve greater flexibility in design, varying ranges of densities, and to encourage well planned neighborhoods through creative and imaginative planning. The PUD also allows an appropriate mix of housing types, which are unique in their physical characteristics to warrant special methods of residential development. A full range of residential development is permitted, consistent with the underlying land use designation.
Commercial	
(CG) General Commercial (FAR: 0.35)	These lands include a wide variety of commercial centers, ranging from general merchandising and strip commercial centers, to community and regional scale centers. Office development is also appropriate in areas with this designation. Development may range from free-standing retail buildings and restaurants to planned commercial centers. Hotels and motels may also be appropriate on these lands, which are located primarily along major corridors and take advantage of convenient access to tourist and business amenities. This designation also allows the cultivation and sale of cannabis and related products with approval of a discretionary permit.

	This designation also provides for the development of commercial centers that serve the entire community and the larger regional market, including supermarket anchors and big box retailers. Community-scale development should take advantage of regional transportation networks and be designed to accommodate transit facilities. Such centers may also host ancillary office components, as well as regional institutions and services.
(CN) Neighborhood Commercial (FAR: 0.35)	This designation is assigned to existing neighborhood centers and vacant lands appropriate for this use. It provides for neighborhood-scale shopping integrated with, and conveniently located as a part of, residential areas. A mix of land uses may also be considered appropriate within this category. Neighborhood commercial uses are also employment centers and should facilitate pedestrian, bicycle and public transit access to the greatest extent practicable. Neighborhood Commercial centers may be anchored by supermarkets and super drugstores and provide a wide variety of supporting commercial services, including banking and similar financial services, businesses and offices, dry cleaners, restaurants, barber shops/beauty salons, and similar commercial outlets serving day-to-day neighborhood needs. These centers typically range in size from 8 to 10 acres and provide about 40,000 to 100,000 square feet of gross leasable floor area.
(DTC) Downtown Commercial (FAR: 0.80)	This designation is assigned to a limited area in the Downtown core (as defined by the Downtown Precise Plan) and takes advantage of the convenient access of the East Palm Canyon Drive corridor. Land use, zoning policies and design criteria for the area are established by the Downtown Precise Plan. Permitted land uses include Downtown Residential Neighborhood and Mixed-Use Commercial. This designation provides for a variety of commercial centers, ranging from storefront scale buildings and office space, to lodging and entertainment establishments. The Civic Center and associated civic facilities are also appropriately located within this area, providing venues for community events and festivals that complement the entertainment retail theme of the downtown.
(MU-N) Mixed-Use Neighborhood (FAR: 1.0)	This designation is assigned to limited areas in North City (as defined in the North City and Extended Specific Plans) and takes advantage of proximity to the Interstate 10 freeway, while acknowledging adjacency to *Conservation Area* lands established by the Multiple Species Habitat Conservation Plan area. Land use, zoning policies and design criteria for the area are contained in the North City Specific Plans. Permitted land uses include a mix of residential, up to 25 dwelling units per acre, commercial retail, office and public gathering spaces. Uses may be mixed either horizontally or vertically, with an emphasis on residential with neighborhood-serving commercial.

(MU-U) Mixed-Use Urban (FAR: 1.0)	This designation is assigned to limited areas in North City (as defined in the North City and Extended Specific Plans) and takes advantage of proximity to the Interstate 10 freeway. Land use, zoning policies and design criteria for the area are contained in the North City Specific Plans. Permitted land uses include a mix of residential, up to 45 dwelling units per acre, commercial retail, office and public gathering spaces. Uses may be mixed either horizontally or vertically, with an emphasis on commercial and allowing "big box" development.
Industrial	
(BP) Business Park (FAR: 0.50)	This designation is intended for light industrial and related uses which are compatible with one another, as well as with neighboring residential and commercial uses. Other potentially appropriate uses include professional offices, including administrative, corporate, institutional, legal, medical, financial, insurance, real estate, and government offices. This designation also allows the cultivation, sale and in some cases manufacture of cannabis and related products with approval of a discretionary permit.
(I) Industrial (FAR: 0.50)	This designation provides for the development of any and all industrial uses operating entirely in enclosed buildings, and those requiring limited and screenable outdoor storage. Examples include clean manufacturing operations, warehousing and distribution facilities, mini-warehouse storage, and a variety of light manufacturing businesses. This designation also allows the cultivation, sale and in some cases manufacture of cannabis and related products. Siting industrial lands in close proximity to major regional highway and railroad facilities is desirable. Preferred development includes master planned industrial parks with integrated access and internal circulation. Business parks may also be permitted, provided their compatibility with other industrial uses is assured. This designation may also allow conditional and/or discretionary development of more intense industrial uses with the potential to generate substantial levels of noise, smoke or odor, dust, glare, traffic, vibration, or other nuisances. Examples include the manufacturing of durable goods, such as appliances, furniture, fabricated metal products, and light electrical and transportation equipment. These uses may also have a potential for greater dependence on outdoor storage. Proponents will be required to mitigate any adverse impacts to acceptable or insignificant levels, demonstrate conformance with all community environmental standards, and be compatible with existing and planned land uses.

Institutional Services and Facilities	
(P) Public/Quasi-Public	This designation serves as a prefix for a variety of quasi-public and public uses delineated on the Land Use map. It is used to recognize such uses as the Civic Center and other governmental offices, libraries, schools, hospitals, police and fire stations, utility substations, and other public and quasi-public facilities.
Institutional Symbols	
(P/CC) Civic Center	Civic Center and related facilities
(P/FS) Fire Station	Fire Station
(P/PS) Police Station	Police Station
(P/M) Medical Facility	Hospitals and similar in/out patient medical facilities. Also may be assigned to convalescent and skilled nursing facilities.
(P/L) Library	Library
(P/S) School	Educational facilities such as daycare, elementary, intermediate, high, special, and technical schools.
(P/PO) Post Office	Post Office
(P/C) Cemetery	Cemetery
(P/T) Transportation	Interstate-10 and Union Pacific Railroad transportation corridors.
(P/U) Utilities	Utility substations, including wells and water tanks, electric, telephone, gas, water and similar facilities.
Open Space	
(OS-P) Parks and Public Open Space	Public parks and open space lands determined to be special, important or valuable natural resources which warrant protection. This designation is assigned to park lands and other recreational amenities.
(OS-PV) Open Space - Private	This designation may be assigned to private open space areas that are preserved for this use. These lands include private golf courses, lakes, tennis facilities, pools and other open space/recreation facilities, which are typically located within planned residential communities.
(OS-O) Open Space - Other	This designation may be used to define a variety of open spaces and special resource areas, or those that may pose threats or hazards to development. Examples include large habitat areas preserved for biological purposes, as well as geologic hazard areas, detention or retention basins, trails, etc.
(OS-W) Open Space-Watercourse	This designation is used to delineate floodways, including natural and man-made floodway and drainage channels.

Proposed Project: Summary of Land Use Changes

The following briefly summarizes the assignments of land use categories under the proposed General Plan Update. Changes in each major land use category is discussed below.

Residential Land Uses
The Proposed Project includes amendments to land use designations and densities and provides approximately 7,495± acres for residential development. In comparison with the current General Plan, which provides 7,609± acres for residential development, the Proposed Project represents a 1.0% decrease or about 114± acres less than the current General Plan. Under the Proposed Project, there are about 3,519± acres of vacant residential lands in the General Plan study area and could accommodate an additional 33,396± dwelling units.

Buildout of the General Plan study area is anticipated to generate approximately a total of 54,615 dwelling units, including existing and potential units. The current General Plan estimates approximately 54,053± dwelling units with the current General Plan's buildout. Therefore, the proposed General Plan will result in an increase of about 562± dwelling units or about 1.0% over the number of units provided under the current General Plan. As can be seen from Table 1-?, the increase is primarily in the number of multi-family units.

Commercial Land Uses
The Proposed Project includes changes to several commercial land use designations. The current General Plan designates 1,636± acres for commercial development in the study area. The Proposed Project would result in a total of 1,575± acres across five commercial land use categories, which represents a decrease of about 61 acres, or 3.0% fewer acres than the current General Plan. Commercial land uses occur in key locations within the City's roadway network, such as Date Palm Drive, East Palm Canyon Drive and Ramon Road, and City lands located north of U.S. Interstate-10. At General Plan buildout the Proposed Project could result in up to 13,116,382± square feet of commercial space, compared to 13,651,604± square feet under the current General Plan. Therefore, the Proposed Project would result in a potential reduction of 535,222± square feet or 3.0% in commercial space at buildout. The Proposed Project would nonetheless provide for up to 8,937,867± square feet of additional commercial space.

Industrial Land Uses
The Current General Plan provides 1,018± acres for industrial development, while the Proposed Project provides 1,251± acres for the same two industrial land use designations. The Proposed Project increases the total amount of industrial land uses by 233± acres or 22.0% compared to the current General Plan. Under the Proposed Project, industrial land uses are expanded in north and south of the East Palm Canyon corridor and especially on lands north and south of the Union Pacific Railroad corridor. Buildout of the Proposed Project has the potential to result in up to 17,781,959 square feet of industrial space, compared to the current General Plan which has the potential to generate approximately 14,426,811 square feet, again, an increase of approximately 22% compared to the current General Plan. The Proposed Project would provide for up to 15,564,546± square feet of additional industrial space.

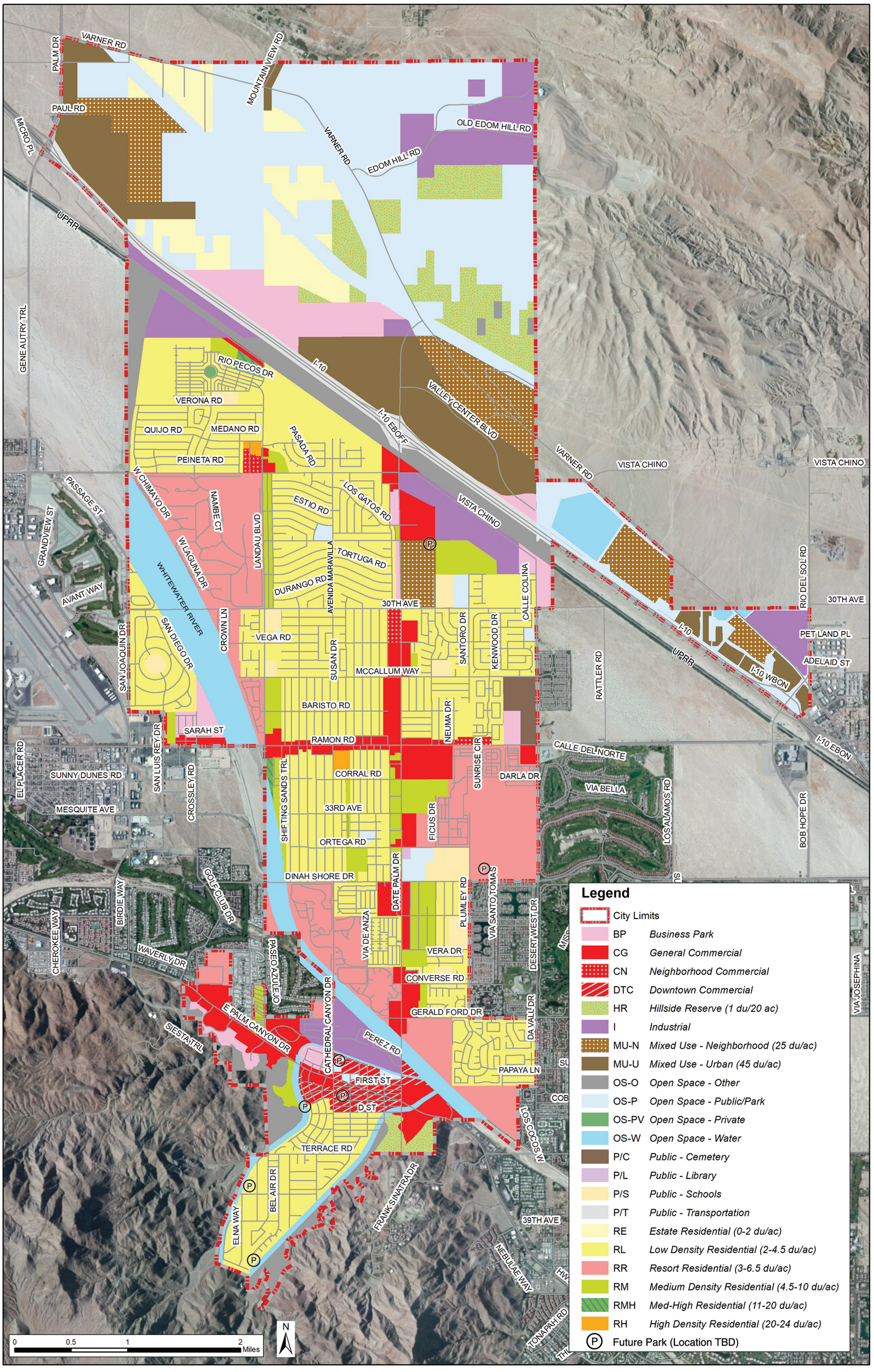
Open Space Land Uses
Open space land use designations represent lands that are preserved for outdoor recreation, including parks and golf courses, floodways and watercourses, and areas with outstanding scenic, biological, historical and cultural value. Under the current General Plan, approximately 3,832± acres are designated for Open Space land uses. The Proposed Project provides a total of 3,775 ± acres, which represents a decrease of 57± acres or 1.0% less than the current General Plan. Although not counted with Open Space lands, lands designated as Hillside Reserve (HR) allow development at a density of no more than one dwelling unit per 20 acres. The Proposed Project includes 459± acres designated as HR. These lands are generally constrained by topography and other conditions and disturbed areas associated with their development would be expected to be limited.

Public Lands

Other land use designations pertain to lands allotted for community and public facilities and are categorized as cemetery, library, schools, and transportation lands. Transportation lands comprise the majority of the "Public" designated in the General Plan. The current General Plan and Proposed Project both designate 461± acres as Public.

Active Transportation Plan

Concurrent with the preparation of the General Plan *Circulation and Mobility Element*, the City has also prepared an Active Transportation Plan (ATP). The ATP is a part of the circulation element and implements pathway classifications for numerous streets in the City, assigning designations and providing improvement plans and guidelines that implement a Complete Streets program for the City. The ATP is designed to provide greater pedestrian, bicycle and NEV access to the City roadway system and off-street network including CV Link regional multi-modal pathway.



05.22.19 Source: City of Cathedral City General Plan, 2009; ESRI 2019, City of Cathedral Ciity and Terra Nova Planning & Research, 2019.

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City of Cathedral City General Plan EIR
Proposed General Plan Land Use Map
Cathedral City, California

Cathedral City

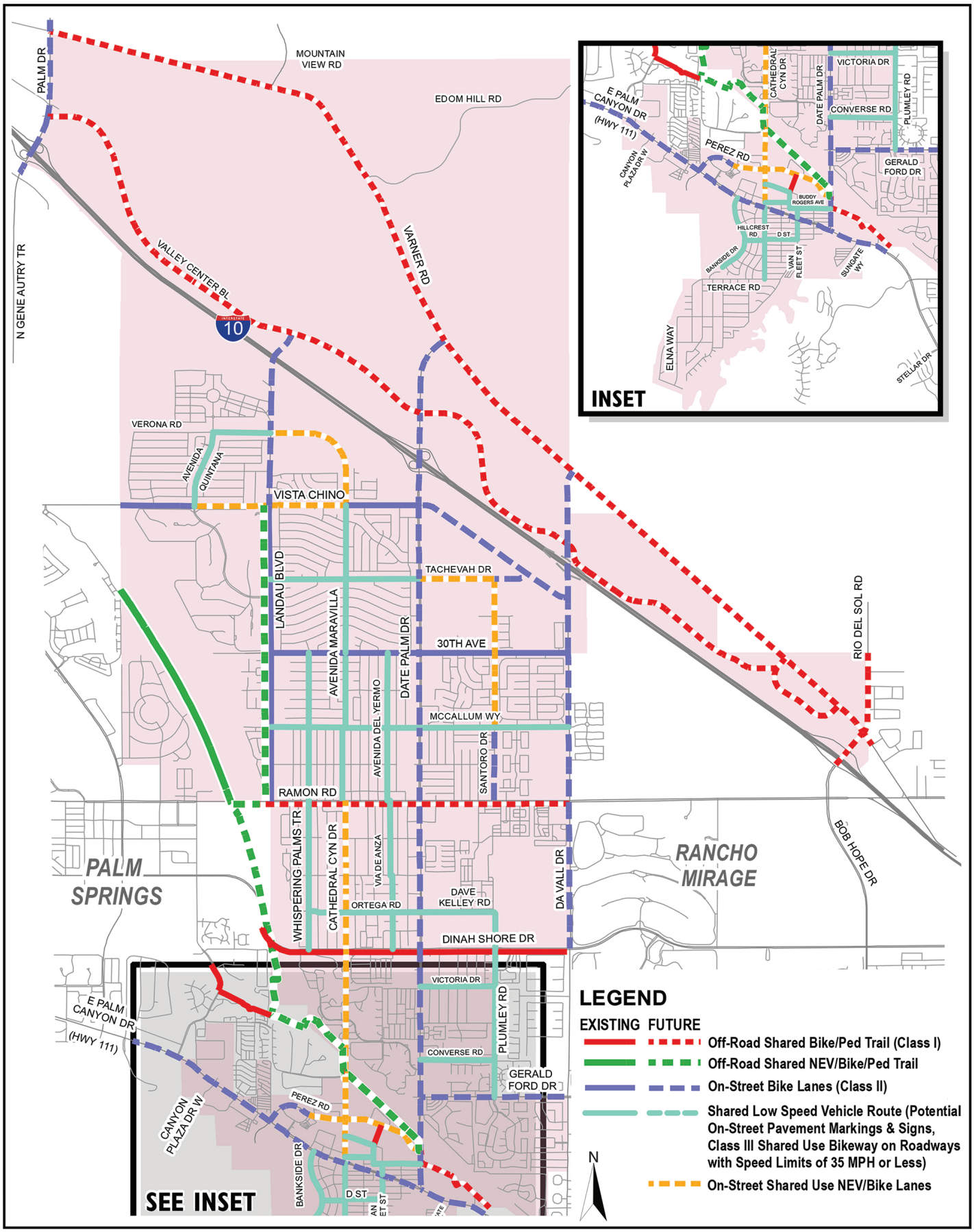
Exhibit

1-5

Table 1-2 Cathedral City General Plan (2018) Proposed Land Use Table

Land Use Category	ROW Acres	Land Use Acres	Total Acres	Vacant	Percentage of Vacant Lands	Developed	Percentage Developed Lands	Total	Percentage	Existing SF/Units	Potential SF/Units*	Buildout SF/Units*
Residential												
Hillside Reserve (1du/20ac)	1.77	457.28	459.05	451.22	98.67%	6.06	1.33%	457.28	3.52%	0	23	**23**
Estate Residential (0-2du/ac)	8.09	420.69	428.78	420.10	99.86%	0.59	0.14%	420.69	3.24%	1	630	**631**
Low Density Residential (2-4.5du/ac)	791.59	3144.12	3935.71	762.77	24.26%	2381.35	75.74%	3144.12	24.19%	11,841	2,574	**14,415**
Resort Residential (3-6.5du/ac)	46.62	1337.54	1384.16	942.80	70.49%	394.74	29.51%	1337.54	10.29%	5,153	4,596	**9,749**
Medium Density Res (4.5-10du/ac)	47.21	415.26	462.47	166.65	40.13%	248.61	59.87%	415.26	3.19%	4,224	1,250	**5,474**
Medium-High Density Res (11-20du/ac)	0.53	21.53	22.06	21.53	100.00%	0.00	0.00%	21.53	0.17%	-	323	**323**
High Density Residential (20-24du/ac)	2.01	38.43	40.44	38.43	100.00%	0.00	0.00%	38.43	0.30%	-	692	**692**
Mixed Use - Neighborhood	9.25	240.64	249.89	240.64	100.00%	0.00	0.00%	240.64	1.85%	-	5,114	**5,114**
Mixed Use - Urban	29.86	482.49	512.35	475.67	98.59%	6.82	1.41%	482.49	3.71%		18,194	**18,194**
Total Residential Acreage	**936.93**	**6557.98**	**7494.91**	**3519.81**	**53.67%**	**3038.17**	**46.33%**	**6557.98**	**50.45%**	**21,219**	**33,396**	**54,615**
Commercial												
Neighborhood Commercial	6.55	32.42	38.97	20.63	63.63%	11.79	36.37%	32.42	0.25%	112,986	197,701	**310,687**
General Commercial	129.27	559.73	689.00	193.24	34.52%	366.49	65.48%	559.73	4.31%	3,516,986	1,851,858	**5,368,844**
Downtown Commercial	37.54	93.39	130.93	40.70	43.58%	52.69	56.42%	93.39	0.72%	504,939	390,036	**894,975**
Mixed Use - Neighborhood	13.87	360.98	374.85	360.98	100.00%	0.00	0.00%	360.98	2.78%	-	3,459,344	**3,459,344**
Mixed Use - Urban	19.91	321.66	341.57	317.11	98.59%	4.55	1.41%	321.66	2.47%	43,604	3,038,929	**3,082,532**
Total Commercial Acreage	**207.14**	**1368.18**	**1575.32**	**932.66**	**68.17%**	**435.52**	**31.83%**	**1368.18**	**10.53%**	**4,178,508**	**8,937,867**	**13,116,382**
Industrial												
Industrial	26.20	761.38	787.58	688.40	90.41%	72.98	9.59%	761.38	5.86%	1,080,863	10,195,479	**11,276,342**
Business Park	24.54	439.26	463.80	362.52	82.53%	76.74	17.47%	439.26	3.38%	1,136,550	5,369,066	**6,505,616**
Total Industrial Acreage	**50.74**	**1200.64**	**1251.38**	**1050.92**	**87.53%**	**149.72**	**12.47%**	**1200.64**	**9.24%**	**2,217,413**	**15,564,546**	**17,781,959**
Open Space												
Open Space - Other	10.73	528.61	539.34	499.69	94.53%	28.92	5.47%	528.61	4.07%	N/A	N/A	**N/A**
Open Space - Public	150.08	2303.85	2453.93	2303.85	100.00%	0.00	0.00%	2303.85	17.72%	N/A	N/A	**N/A**
Open Space - Water	8.56	772.77	781.33	477.32	61.77%	295.45	38.23%	772.77	5.94%	N/A	N/A	**N/A**
Total Open Space Acreage	**169.37**	**3605.23**	**3774.60**	**3280.86**	**91.00%**	**324.37**	**9.00%**	**3605.23**	**27.73%**	**N/A**	**N/A**	**N/A**
Public												
Cemetery	4.64	55.74	60.38	0.00	0.00%	55.74	100.00%	55.74	0.43%	N/A	N/A	**N/A**
Library	0.77	2.80	3.57	0.00	0.00%	2.80	100.00%	2.80	0.02%	N/A	N/A	**N/A**
Schools	7.29	149.38	156.67	0.00	0.00%	149.38	100.00%	149.38	1.15%	N/A	N/A	**N/A**
Transportation	181.20	58.97	240.17	0.00	0.00%	58.97	100.00%	58.97	0.45%	N/A	N/A	**N/A**
Total Public Acreage	**193.90**	**266.89**	**460.79**	**0.00**	**0.00%**	**266.89**	**100.00%**	**266.89**	**2.05%**	**N/A**	**N/A**	**N/A**
Totals	**1558.08**	**12998.92**	**14557.00**	**8784.25**	**67.58%**	**4214.67**	**32.42%**	**12998.92**	**100.00%**			

*Existing and future conditions of Mixed-Use, Commercial, and Industrial land uses are calculated using the following assumptions: residential development is assumed to occur at 75% of the maximum density permitted, 22% lot coverage for commercial and mixed-use development, and 34% lot coverage for industrial development. Mixed-use Neighborhood is developed as 60% commercial and 40% residential. Mixed-use Urban is developed as 60% residential and 40% commercial. Updated 5.30.19



Source: Urban Crossroads, 2018

12.20.18

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City of Cathedral City General Plan EIR
Active Transportation Plan - Multi-Modal Facilities
Cathedral City, California

Cathedral City

Exhibit 1-6

Cathedral City

City of Cathedral City General Plan Update

ENVIRONMENTAL IMPACT REPORT

2.0. ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

2.1 Introduction

This section of the Cathedral City General Plan EIR provides an overview of the regional environmental setting in which the City is located, with particular emphasis on the environmental constraints and resources most likely to be affected by implementation of the Proposed Project and provides detailed analysis of the effects the Proposed Project will have on the environment. As prescribed by CEQA, the analysis is conducted on a categorical basis. Each discussion includes a description of the thresholds of significance considered in the analysis, the regulatory framework, description of the impacts the Proposed Project would have on the environment and identifies the anticipated level of impact. If the impacts are expected to be potentially significant, mitigation measures are provided. Finally, the level of impact after the imposition of these mitigation measures is determined (residual impact), and cumulative impacts are addressed.

2.1.1 Summary of Environmental Impact Analysis

This following resource topics are assessed for potential impacts associated with the Proposed Project:

- Aesthetics in Section 2.2
- Agriculture and Forestry Resources in Section 2.3
- Air Quality and Greenhouse Gases in Section 2.4
- Biological Resources in Section 2.5
- Cultural and Tribal Cultural Resources in Section 2.6
- Energy and Mineral Resources in Section 2.7
- Geology and Soils in Section 2.8
- Hazards, Wildfires & Hazardous Materials in Section 2.9
- Hydrology and Water Quality in Section 2.10
- Land Use and Planning in Section 2.11
- Noise in Section 2.12
- Parks and Recreation in Section 2.13
- Population, Housing and Socio-Economic Resources in Section 2.14
- Public Utilities and Service Systems in Section 2.15
- Transportation in Section 2.16

Threshold of Significance: This subsection cites the applicable CEQA thresholds that are applicable to the resource topic and the project.

Regulatory Framework: This subsection provides a brief discussion of federal, State, and local regulations and policies that are applicable to the resource topic and the project.

Environmental Setting: This subsection provides an overview of the regional environmental setting in which the Proposed Project is located, with particular emphasis on the environmental constraints and resources most likely to be affected by implementation of the Project.

Existing Conditions: This subsection presents a description of the existing physical environmental conditions at and in the immediate vicinity of the Project planning area with respect to each resource area, and at an appropriate level of detail to understand the impact analysis.

Project Impacts and Mitigation Measures: This subsection evaluates the potential for the General Plan update and ATP (Proposed Project) to affect the physical environment. Significance criteria for evaluation of environmental impacts are defined in the beginning of the impact analysis section, including an explanation of how the significance criteria are used in the evaluation of impacts for the Project. This subsection includes a discussion of the approach to the analysis, including identification of the significance criteria applicable to the Project. Potential impacts are identified and characterized. Where feasible, mitigation measures are identified to avoid or reduce identified significant impacts to a less-than-significant level.

The Impacts and Mitigation Measures subsection in each resource discussion includes an impact statement followed by the evaluation of the impact for the relevant facility components, and a conclusion regarding the impact for the Project as a whole. Many of the General Plan's policies and programs serve to avoid or minimize impacts associated with the Project's implementation and are described generally and referenced in this discussion. When applicable, mitigation measures are also presented.

> No Impact: This determination is made if a resource is absent or if a resource exists within the project area or area of potential effect, but there is no potential that the project could affect the resource.
>
> Less than Significant: This determination applies if there is a potential for some limited impact on a resource, but the impact is not significant under the significance criterion.
>
> Less than Significant with Mitigation: This determination applies if it is certain that the project would result in an adverse effect that meets the significance criteria, but mitigation is available to reduce the impact to a less than significant level.
>
> Significant and Unavoidable: This determination applies if the project would result in a significant adverse effect in accordance with the significance criterion and there is some mitigation available to lessen the impact, but the residual effect after implementation of the mitigation would remain significant.

Mitigation Monitoring and Reporting Programs (MMRP): Where applicable, MMRPs have been developed to ensure that avoidance, minimization and mitigation measures are implemented, and assigns responsibility schedules.

Significance after Mitigation: This subsection identifies the level of significance of impacts after avoidance, minimization, and mitigation measures are implemented.

Cumulative Impacts: Cumulative impacts are discussed in each environmental resource section following the description of project-specific impacts and mitigation measures. CEQA requires that an EIR contain an assessment of the cumulative impacts of a project when the project's incremental effect may be cumulatively considerable. As defined in State CEQA Guidelines §15065(a)(3), "cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. The nature of the General Plan update Project lends itself to a cumulative impact analysis based on the regional plan approach. Guidance for cumulative impact analysis is provided in State CEQA Guidelines §15130, which states that:

- An EIR shall discuss cumulative impacts of a project when the Project's incremental effect is "cumulatively considerable" (i.e., the incremental effects of an individual project are considerable when viewed in connection with the effects of past, current, and probable future projects, including those outside the control of the agency, if necessary).
- An EIR should not discuss impacts that do not result in part from the Project evaluated in the EIR.
- A Project's contribution is less than cumulatively considerable, and thus not significant, if the Project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact.
- The discussion of impact severity and likelihood of occurrence need not be as detailed as for effects attributable to the Project alone.

The focus of analysis should be on the cumulative impact to which the identified other projects contribute, rather than on attributes of the other projects that do not contribute to the cumulative impact.

2.2 Aesthetics

2.2.1 Introduction

This section evaluates potential impacts of developing the proposed 2040 General Plan Update on aesthetic, visual, and scenic resources, including potential loss of views, direct impacts to scenic resources, and effects of increased lighting on motorists and residents in the Planning Area. General Plan Policies and standard City requirements are evaluated as to their effect of mitigating or avoiding any potentially significant effects.

2.2.2 Thresholds of Significance

Based on Appendix G of the 2018 State CEQA Guidelines, impacts related to aesthetics would be significant if the Proposed Project would:

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

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

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

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

2.2.3 Regulatory Framework

Federal

The National Environmental Policy Act of 1969 states that it is the responsibility of the federal government to "ensure all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings … and to attain the widest range of beneficial uses in the environment with degradation, risk to health or safety, or other undesirable and unintended consequences."[1] The Federal Highway Administration (FHWA) in its implementation of the National Environmental Policy Act (NEPA)[2] dictates that final decisions regarding projects are to be implemented according to the best overall public interest, taking into consideration the adverse environmental impacts, including the destruction or disruption of aesthetic values that would occur as result of a Proposed Project. As noted below, there are no federally designated "scenic highways", scenic byways or other aesthetic or cultural resources that would be impacted by the Proposed Project. Nonetheless, US Interstate-10 passes through a region of important scenic value, including the Coachella Valley and the City. Under NEPA, the Federal Highway Administration (and its agents such as Caltrans) is tasked with protecting scenic resources along this and other federal highways.

1 National Environmental Policy Act of 1969 (Section 101 42 USC Section 4331 [b] [2])
2 Ibid. (USC Section 109 [h])

State

California Scenic Highway Program

In 1963, the State of California established the Scenic Highway Program to develop a system of State roadways whose adjacent corridors contained scenic resources worthy of protection and enhancement. SR 111, between State Highway 74 in Palm Desert and its connection with US Interstate-10 near Whitewater, is eligible to be included in the State Scenic Highway System,[3] but it is not officially designated as a scenic highway. Sections 260 through 263 of the State Streets and Highways Code establish the Scenic Highways Program and require local government agencies to take the following actions to protect the scenic appearance of a scenic corridor:

- Regulate land use and density of development,
- Provide detailed land and site planning,
- Prohibit off-site outdoor advertising and control on-site outdoor advertising,
- Pay careful attention to and control earthmoving and landscaping, and
- Scrutinize the design and appearance of structures and equipment.

County Scenic Corridors

The Western Coachella Valley Action Plan (WCVAP), a sub-plan of the Riverside County General Plan, designates several roadways in the Coachella Valley as "scenic corridors". In the Cathedral City area these include US Interstate-10, Varner Road, Palm Drive, and Dillon Road. The County has adopted policies meant to protect these scenic corridors where they occur on unincorporated County lands. Relevant policies are primarily associated with signage, and other development adjacent to or near these and other scenic corridors, and include the following:

> WCVAP 19.1 Protect the scenic highways in the Western Coachella Valley from change that would diminish the aesthetic value of adjacent properties in accordance with policies in the Scenic Corridors sections of the Land Use, Multipurpose Open Space, and Circulation Elements.

Regional/Local

The 2040 General Plan Update will facilitate new development throughout the Planning Area through the adoption of its Land Use Map, and policies promoting development. The following 2040 General Plan Policies are designed to guide the aesthetic quality of the Planning Area.

Community Design Element

> **Policy 1.1:** The City recognizes the importance of quality planning and design and shall develop and update standards and guidelines that address all areas of community design.
>
> **Policy 1.2:** The City shall apply the design standards and associated Municipal Code to the processing of all development proposals within the City's designated Downtown district as set forth in the Downtown Design Guidelines.
>
> **Policy 2.1**: Neighborhoods shall establish a well-defined edge or boundary, consisting of landscaping, green belts, open space, and/or entry monumentation, in appropriate locations to help create a unique community image and sense of place.

[3] "Article 2.5 of Chapter 2 of Division 1 of the California Streets & Highways Code". California Office of Legislative Counsel. Retrieved February 6, 2019.

Policy 2.2: Community design, architecture, and landscaping standards and guidelines shall be compatible with and enhance the City's desert setting and natural scenic resources.

Policy 2.3: The City shall pro-actively work to preserve and restore the community's night sky by updating and revising the Lighting Ordinance based on the guidelines set forth by the International Dark Sky Association.

Policy 3.2: Native desert landscape materials and site-sensitive architectural designs shall be incorporated into all public and private building projects to complement and enhance the functional and aesthetic relationships between the natural and built environments.

Policy 3.3: The City shall actively pursue joint land use agreements with the Agua Caliente Band of Cahuilla Indians and individual landowners to retire billboards located within the City limits.

Policy 3.4: The City shall maintain and enforce a general Sign Ordinance and the Auto Center Sign Ordinance, which define permitted sign locations, sizes, maintenance, and other related requirements.

Policy 3.5: Overhead utility lines shall be undergrounded to the greatest extent practical through the establishment of an undergrounding program and guidelines.

Policy 5.4: The City shall support and conduct a high level of Code Enforcement to encourage neighborhood beautification and to maintain property values and quality of life.

Open Space and Conservation Element

Policy 4: Expand and enhance an integrated network of open space to support recreation, natural resources, historic and tribal resources, habitat, water management, aesthetics, and other beneficial uses.

Policy 11: Native landscaping materials and oasis-like design features shall be incorporated into parks, public rights-of-way, golf courses, and other open space lands, as appropriate, to enhance, retain and preserve the natural desert environment and enhance human and wildlife habitats.

2.2.4 Regional Environmental Setting

The Coachella Valley is a low desert basin surrounded by dramatic mountainous terrain created by the active geology that is characteristic of Southern California. The overall gradient of the valley is from northwest to southeast, gently sloping from the San Gorgonio Pass, at approximately 2,600 feet above mean sea, level to the Salton Sea, which has a current surface elevation of approximately 228 feet below mean sea level.

The valley and the Salton Sea are located within the Salton Trough, a fault-controlled valley formed by the San Andreas Fault Zone. The Salton Trough is located within the Colorado Desert Geomorphic Province, which is bounded to the southwest by the Peninsular Ranges province that include the San Jacinto Mountains, to the north by the eastern Transverse Ranges province of the San Bernardino and Little San Bernardino Mountains, and to the northeast by the southeastern portion of the Mojave Desert province. The surrounding provinces contain some of the highest mountain peaks in the state and the region.

Surrounding mountains include the San Jacinto Mountains, the foothills and slopes of which ascend from the valley floor. At its peak, Mount San Jacinto rises to an elevation of 10,834 feet above mean sea level. To the southwest and south are the Santa Rosa Mountains, with Toro Peak at an elevation of 8,715 feet above mean sea level. Visual resources to the east include the colorful Mecca Hills, the Cottonwood Mountains and the Chocolate Mountains to the southeast. To the north and northeast of the valley are the Little San Bernardino Mountains, which are visible from the City. In addition to cultivated fields on the valley floor, alluvial fans, wind and lake deposits have accumulated over time and are prominent features within the valley floor. Emanating from the mouths of mountain canyons are numerous alluvial fans, such as the Mecca Hills located east of the planning area.

2.2.5 Existing Conditions

Cathedral City is named for the dramatic and scenic mountainous areas that form the southern portion of the City. The scenic vistas of the City also include the upper slopes of the Santa Rosa Mountains to the southwest and south and the steeply rising terrain of the San Jacinto Mountains and Mt. San Jacinto to the west, which are prominently featured in advertising and promotional materials. Other important scenic mountain vistas that are prominent include Mt. San Gorgonio and the San Bernardino Mountains to the northwest and the Indio Hills and Little San Bernardino Mountains to the north and northeast.

While panoramic mountain vistas are the most prominent of the City's scenic resources, there are many other aspects of the desert environment that provide a mix of more intimate scenery in the community. These include the Whitewater River and the East and West Cathedral Canyon Washes and surrounding terrain. Large expanses of desert sand fields remain undisturbed both north and south of the Interstate-10 corridor and on the slopes of Edom Hill and Flat-top Mountain to the north. The Indio Hills, including Edom Hill, also provide expansive and dramatic terrain that can be appreciated from all parts of the City.

A wide variety of visual resources in the City are also associated with the built environment and include the beautifully designed City Downtown area and the East Palm Canyon Drive corridor, the numerous public parks and golf course communities, and the both intimate and grand scenic vistas that can be appreciated from many of the City's major roadways (also see Image Corridors map in the General Plan Circulation and Mobility Element). Landscape treatment along the City's many roadways has been a priority since the City's incorporation and are an area of ongoing focus for City planners.

2.2.6 Project Impacts

The proposed General Plan update has the potential to have a profound effect on the City's aesthetic resources, including the tremendous desert and mountain views and the visual quality of the community and the built environment. The following evaluates the potential effects implementing the Proposed Project may have on these important resources.

Would the Project:

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

Natural scenic vistas in the planning area include the Santa Rosa, San Jacinto, and Little San Bernardino Mountains. Some of the more notable scenic vistas in the City include the Cathedral Cove located in the foothills and the expansive backdrop of the Santa Rosa Mountains just south of the City limits. To the north and east, scenic vistas include Edom Hill, Indio Hills and the rising terrain of the San Jacinto, San Bernardino and Little San Bernardino Mountains.

The 2040 General Plan Update will facilitate new development in areas that are currently vacant, and encourage redevelopment in existing urbanized areas within the City. The redevelopment or development of new manmade structures, including buildings, streets, signage, walls, and landscaping, has the potential to disrupt views of the scenic vistas and natural landscapes.

The 2040 General Plan Update provides policies and programs to protect existing views and maintain existing scenic vistas. These include policies relating to the preservation of existing neighborhoods, and the implementation of development standards to reduce impacts from new or redeveloped projects on adjacent lands (Community Design Element policies 1.1, 1.2, and 2.2). Further, the City will continue to implement its Zoning standards, which limit building height, and control mass and scale. The General Plan Update also contains policies geared to high quality design in harmony with the natural environment, as well as the preservation of natural resources (Community Design Element policies 2.1, 2.2, and 3.2; Open Space and Conservation Element policies 4 and 11).

The policies and programs contained in the Community Design and Open Space/Conservation Elements will limit the potential impacts on scenic vistas resulting from implementation of the General Plan Update. As a result, impacts on scenic vistas caused by implementation of the General Plan Update, will be less than significant.

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

Scenic resources include trees, rock outcroppings, and historic buildings that are visible from a state scenic highway. Currently, there are no state scenic highways that run through Cathedral City. Therefore, impacts to scenic resources along a state scenic highway will be less than significant.

Other notable scenic resources within the City include varied streetscapes and parks and open space. Protection of these resources is important to preserving the City's scenic corridors. The City protects and enhances these scenic corridors by securing and thoughtfully landscaping parkway easements along major roadways, resulting in greater building setbacks and enhanced parkway appearance. General Plan policies that ensure these protections and enhancements include Community Design Element Polices 1.1, 1.2, 2.1, and 2.2.

The 2040 General Plan Update maintains policies and programs currently in effect that enhance parkways and assure viewshed protection. Parkway easements along image corridors help assure that the traveling public (and adjoining property owners) share in a quality landscaped parkway experience that enhances the image of these scenic corridors. Therefore, implementation of the General Plan Update will have a less than significant impact on scenic resources within the City.

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

Visual character includes the existing look, feel, and quality of urbanized and natural areas. Large portions of the City are already developed with a full mix of land uses. Several areas in the already urbanized portions of the City are vacant and available primarily for in-fill development. North of the Union Pacific Railroad/Interstate-10 corridor, lands are essentially vacant, with the exception of two water reservoirs, wind turbines on the west slope of Edom Hill and electrical transmission towers. Lands in northeastern portion of the City at the intersection of I-10 and Bob Hope Drive are just beginning to develop. Overall, industrial and commercial development has been intensified as part of the 2040 General Plan in an effort to increase land use efficiencies and to achieve a greater return on the City's investment in infrastructure and services.

Policies and programs in the 2040 General Plan Update, specifically the Community Design Element, are consistent with and will enhance the existing character of development in the City. Streets will continue to be developed with curb, gutter, and landscaping to improve visual character along public rights-of-way. In addition, the City's Architectural Review Committee is responsible for reviewing architectural and landscaping design for all new commercial, industrial and multi-family residential projects, major commercial remodels and administrative design review applications on a project specific, case-by-case basis. In addition to demonstrating conformance with the Community Design Element and other design-related elements of the General Plan, all development projects will be required to adhere to the design standards and guidelines set forth in the City's Municipal Code. The proposed General Plan update will not conflict with applicable zoning and other regulations governing scenic quality. Visual character impacts in both urbanized and rural areas within the City as a result of the implementation of the proposed General Plan are, therefore, expected to be less than significant.

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

Light and glare impacts are associated with increased urbanization. Within the City limits, the majority of lands are developed, and daytime and nighttime skies are already affected to a limited extent by light and glare. The adoption of the 2040 General Plan Update will facilitate similar development patterns in the City to those that exist today.

Dark skies will diminish with more traffic, buildings, street lights and indoor illumination. The City Outdoor Lighting Ordinance (Chapter 9.89 of the Municipal Code) provides regulations for reducing light and glare caused by new development. The General Plan Update maintains policies and programs to preserve low lighting levels (Community Design Element Policy 2.3) and the Outdoor Lighting Ordinance, and requires all future development to develop according to these regulations.

In summary, the proposed General Plan update introduces additional policies and programs to protect against excessive lighting, and maintains policies and programs currently in effect that limit lighting. The City's Municipal Code prohibits light spillage onto neighboring properties. Therefore, implementation of the General Plan Update will have a less than significant impact on light and glare impacts within the City.

2.2.7 Mitigation Measures

The 2040 General Plan Update will facilitate continued urbanization in areas that are undeveloped, but also provides goals, policies and programs to reduce aesthetic impacts associated with new development. The General Plan policies, specifically in the Community Design Element, the City's Municipal Code, and the project-specific design review process will control the aesthetics, mass, scale and bulk of new projects and redeveloped sites. Therefore, the proposed General Plan serves to avoid, minimize and mitigate the potential adverse effects of continuing urbanization of the City's visual and other aesthetic resources. Impacts to aesthetic resources are expected to be less than significant, and no mitigation measures are required. Nonetheless, the following measures derived from the proposed Community Design Element will further assure that impacts related to aesthetics are less than significant.

AES-1 The City shall initiate a review of the 2002 Downtown Design Guidelines and shall update this document in a manner that builds from and extends the aesthetic, functionality and values reflected in the Community Design Element and the other General Plan elements.

AES-2 The City-Wide Design Guidelines and Zoning Ordinance shall be periodically reviewed and, as appropriate, revised and updated to reflect the changing urban pattern and needs of the community.

AES-3 The City shall require the incorporation of parks and open space into new development projects, and shall ensure that new parks and open space are developed in the early phases of development projects.

AES-4 To preserve and restore the community's night sky, the City shall review and, as appropriate, update the Lighting Ordinance to require outdoor lighting to be shielded, limit in height, number, and intensity of fixtures to the minimum needed to provide sufficient security and identification on residential, commercial, and other development.

AES-5 To ensure that development proposals are initiated consistent with the City's community design principles and values, the City shall maintain comprehensive development application packages that provide detailed information on and direct applicants to City design guideline documents, ordinances and other requirements, standards and guidelines.

AES-6 Promote development plans that are based on the principles and values set forth in the Community Design and other General Plan Elements that define and support positive and unique qualities of existing and planned neighborhoods.

AES-7 New residential development proposals shall be reviewed by City staff to assure compliance with applicable design standards and guidelines, and promote design features, such as entry statements, recreational facilities, neighborhood parks and schools, and landscaping along public rights-of-way.

AES-8 Require the submittal of detailed landscape, architectural, and special signage designs for project entries and other design features in or adjacent to the public realm to assure compliance with community design standards and guidelines, and compatibility with the natural and built environments.

AES-9 The City shall develop and adopt a program of Code compliance standards for existing and future neighborhoods, and enforce the program through regular Code Compliance inspections.

AES-10 The Land Use Map and Zoning Ordinance shall regulate development at the boundaries of the planning area to assure the preservation of a well-defined, functional, or visual edge.

AES-11 The development and design review process shall assess the adequacy of proposed design features and landscaping materials.

2.2.8 Significance After Mitigation

Policies and programs set forth in the General Plan and adherence to the City's Municipal Code assure that impacts associated with implementation of the proposed General Plan that are related to aesthetic quality and resources will be less than significant.

2.2.9 Cumulative Impacts

Cumulative impacts are those resulting from past, present, and reasonably foreseeable future actions. The policies and programs set forth in the proposed General Plan update provide design regulation and guidance for future growth within the City, and augment the additional regulation under the City Municipal Code. While the potential exists for aesthetic resources to be degraded by future development, the General Plan update recognizes the importance of and vested interest in preserving and enhancing the community's aesthetic resources. Therefore, any such impacts resulting from the implementation of the new General Plan will not make a considerable cumulative addition to regional impacts to these resources.

2.3 Agricultural and Forestry Resources

2.3.1 Introduction and Background

The project planning area has soils and topography that are not especially well suited for agricultural production. The Riverside County Important Farmland Map of 2016 has designated areas within the Planning Area as being "Urban and Built-up Land" and "Other Land"[1]. While the eastern fringes of the City in the vicinity of Da Vall Drive once hosted date palm and citrus cultivation in the first half of the 20th century, this has been the limit of agricultural activities in the City. Currently, there are no agricultural activities located in the City, although cannabis is being grown in the City but within enclosed buildings. This section assesses impacts on agricultural and forestry resources resulting from the proposed General Plan update.

2.3.2 Thresholds of Significance

Article 5, Section 15064 of the CEQA Guidelines provides guidance for determining the significance of the environmental effects caused by a project. Appendix G of the CEQA Guidelines provides a list of environmental factors that potentially may be affected by completion of a project. The Cathedral City General Plan update project would have a significant effect on Agricultural and/or Forestry Resources if it is determined that it would:

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

b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract.

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

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

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

2.3.3 Regulatory Framework

Federal

Farmland Protection Policy Act

The Farmland Protection Policy Act (FPPA) requires an evaluation of the relative value of farmland that could be affected by decisions sponsored in whole or part by the federal government. The FPPA is intended to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. It assures that, to the extent possible, federal programs are administered to be compatible with State, local units of government, and private programs and policies to protect farmland (U.S. Department of Agriculture, 2015). For the purpose of FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance. Farmland subject to FPPA requirements includes forestland, pastureland, cropland, or other land. As discussed below, the Proposed Project does not have the potential to impact farmlands.

[1] California Department of Conservation, Division of Land Resource Protection, 2012.

State

California Land Conservation Act

As noted above, the California Land Conservation Act of 1965, commonly referred to as the Williamson Act, is the State's primary program aimed at conserving private land for agricultural and open space use. It is a voluntary, locally administered program that offers reduced property taxes on lands whose owners place enforceable restrictions on land use through contracts between the individual landowners and local governments. There are no lands in the study area that are enrolled in the Williamson Act program. Therefore, land use restrictions imposed by the Williamson Act are not applicable to the Proposed Project.

State Farmland Designations[2]

Prime Farmland: Prime Farmland is defined as land with quality soil and moisture supply that allows for production of high yield crops when managed by modern farming methods. These lands are best suited for producing food crops, feed, forage, fiber, and oilseed crops. The best use of the land is for cropland, pastureland, rangeland, and forestland, however urban uses are not recommended.

Farmland of Local Importance: Farmlands of Local Importance have the soil quality and characteristics of Prime Farmland or Statewide Important Farmlands, but lack available irrigation water. These lands may produce crops important to Riverside County, but are not listed as Unique Farmland Crops.

Unique Farmlands: This type of farmland has reduced soil quality or characteristics from Prime Farmland or Statewide Important Farmlands, but can still be used for high value food and fiber crops. These lands are capable of producing crops such as citrus, olives, and avocados.

Statewide Important Farmlands: These lands are similar to Prime Farmlands; however, they do not exhibit as good soil as Prime Farmland. Statewide Important Farmland still has a good combination of physical and biological characteristics for producing similar crops as Prime Farmlands, and is available for cropland, pastureland, rangeland, or forestland.

Regional and Local

Riverside County General Plan/Western Coachella Valley Area Plan

The Proposed Project is located within the Riverside County *Western Coachella Valley Area Plan* (WCVAP), which is a sub-area of the Riverside County General Plan and Vision Statement (Riverside County 2015). The Vision Statement details the physical, environmental, and economic characteristics that the County aspires to achieve by the year 2035. Using the Vision Statement as the primary foundation, the General Plan establishes policies to guide development and conservation within the entire unincorporated County territory, while the Area Plan details standards and policy direction specifically for Eastern Coachella Valley.

The WCVAP Land Use Plan depicts the geographic distribution of land uses within the plan area. These land uses derive from the five General Plan Foundation Component land uses: Open Space, Agriculture, Rural, Rural Community and Community Development. The Plan does not recognize agricultural within the Plan's boundary.

Riverside County Land Use Ordinance

The Riverside County Land Use Ordinance (Ordinance 348.4802) provides for land use planning and zoning regulations and related functions of Riverside County. The Land Use Ordinance establishes zoning districts, standards, and regulations to guide development within the County. According to Ordinance Article XIV, Section 14.2, water works facilities, both public and private, intended primarily for the production and distribution of water for irrigation purposes are permitted within this district, as are public utility facilities.

[2] Riverside County Important Farmland 2008", prepared by California Department of Conservation, Division of Land Resource Protection, prepared September 2009

City of Cathedral City

Neither the current nor the proposed General Plan include policies that address conventional agriculture. As discussed below, prevailing soils and the lack of access to irrigation water have greatly limited the viability of soils-based agricultural activity in the City. Early date and citrus cultivation occurred near the City's eastern edge and relied upon the pumping of groundwater, which is no longer supported by groundwater managers in this portion of the valley.

2.3.4 Environmental Setting

No agricultural lands occur along or in proximity to the City. Agriculture was the first large-scale land use to occur in the Coachella Valley dating back to the early 20th century. Early crops favored by farmers included dates, citrus and even cotton, and valley growers have since expanded to make the Coachella Valley a major producer of table grapes and truck crops[3]. While agriculture constituted the largest conversion of wild lands in the valley, over time land values have increased with continuing development pressure.

From 1948 to 1999, the number of irrigated acres increased from about 23,000 to 72,800 acres.[4] The growth in agriculture was, at least in part, facilitated by the completion of the Coachella Branch of the All-American Canal by the U.S. Bureau of Reclamation in 1949. The canal delivered imported Colorado River water to the eastern Coachella Valley for irrigation purposes, and this supplemental water source made additional agricultural activity possible and relieved pressure on the lower valley aquifer. In 1999, agriculture in the Coachella Valley used 333,300 acre-feet of water for crop irrigation and other agricultural purposes.

More than 2/3rds of Coachella Valley farmland is irrigated in part with Colorado River water delivered via the Coachella Canal. CVWD delivered 280,000 acre-feet to 66,431 acres in 2014, with a gross production value of $730,487 with irrigable lands in the Coachella Valley totaling 76,354 acres.[5] Agriculture remains the third largest employment sector in the region and represents a mainstay of the broader Riverside County economy, ranking in the top ten among California counties in total value of agricultural production.

Riverside County's leading agricultural products are fruit and nut crops, livestock products, and vegetable products[6]. Major Coachella Valley products include dates, grapes, citrus, and a variety of other fruits and vegetables. Agricultural lands are designated by the State's Department of Conservation as "prime farmland," "statewide important farmland," "unique farmland," and "local important farmland," based on their soil characteristics, climatic conditions, water supplies, and suitability for production.

In the City and vicinity, lands are no longer in commercial agriculture. Historic date gardens have been converted to residential subdivisions, and in some places these trees have been maintained as ornamental landscape specimens. There are no forestry resources in proximity to the project area, the nearest such resources being in the San Jacinto Mountains.

2.3.5 Existing Conditions

Agriculture has been a major source of economic activity in the Coachella Valley since the turn of the 20th century. The eastern portions of the Coachella Valley provide excellent soils, flat topography, abundant sunshine, and

3 "Truck crops" refers to the horticultural practice of growing one or more vegetable crops on a large scale for shipment to distant markets.

4 "Coachella Valley Water Management Plan," Coachella Valley Water District, November 2002.

5 Coachella Valley Water District 2014 Crop Report.

6 Summary of County Agricultural Commissioners' Reports, Gross Values by Commodity Groups, California 1995-2000, as compiled and tabulated by the Southern California Association of Governments (SCAG). Does not include all crops/products produced.

available water resources, making it a contributor to the State's agricultural production. The date palm was introduced to the Coachella Valley, and has historically been a staple crop for the region. Other crops, such as grapes, citrus, vegetables, turf production and ornamentals have also been farmed in the region. Land available for agricultural production continues to be threatened by increased urbanization[7]

As noted, there are no longer any soils-based agricultural areas in the City or vicinity. The new, legal cannabis industry has attracted growers to the City and other communities, but all of their activities occur within enclosed buildings where the cultivation of these crops is carefully controlled.

Williamson Act Lands

Lands under the Williamson Act, or California Land Conservation Act, are agricultural lands that allow special tax assessment. These lands are taxed on the basis of agricultural production rather than market value. The goal of the Williamson Act is to protect agricultural land from being sold for development. There are no lands under Williamson Act contracts that would be impacted by the implementation of the proposed General Plan.

2.3.6 Project Impacts

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

There are no prime or unique farmlands, or farmlands of statewide importance in the City. Nor will the implementation of the proposed General Plan impact farmlands of any type.

b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract.

There are no lands that are zoned for agricultural use in the City nor are there any lands that are under a Williamson Act contract. Therefore, the implementation of the proposed general Plan will not impact such lands.

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

There are no forest lands within the City nor are their lands zoned for forestry or would be re-zoned for such use as a consequence of the implementation of the proposed General Plan.

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

The implementation of the proposed General Plan will not result in the loss of forestry land or the conversion of such lands to non-forestry uses.

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

The implementation of the proposed General Plan may affect future land uses in the City. However, it will not result in the conversion of any designated farmlands to non-agricultural uses, nor will it affect forestry lands.

[7] California Farmland Conversion Report 2015, prepared by the California Natural Resources Agency/Department of Conservation. September 2015.

2.3.7 Mitigation Measures

The Proposed Project will not directly or indirectly require conversion of farmland to non-agricultural uses, and no new indirect pressures are created by the Project that might encourage agricultural landowners to sell or develop agricultural lands. Therefore, no mitigation is required.

2.3.8 Significance After Mitigation

There will be no residual impacts to agricultural or forestry resources as a consequence of implementing the proposed General Plan.

2.3.9 Cumulative Impacts

There are no forest resources in the project study area. Therefore, the Proposed Project does not contribute to any cumulative projects related to forest resources. No agricultural land conversion would occur, and the Proposed Project would not contribute to any cumulatively considerable impacts related to agricultural resources.

2.4 Air Quality and Greenhouse Gases

2.4.1 Introduction

The following section describes the existing air quality greenhouse gas conditions in the Coachella Valley, and analyzes the potential impacts associated with buildout of the Cathedral City General Plan. A variety of local and regional data and information, ranging from research and analysis conducted for the project site, to regional-scale planning and environmental documents, have been used in researching and analyzing the project and its potential effects on air quality, GHG emissions and climate change. An Air Quality and Greenhouse Gas Report was prepared for the project and is provided in Appendix B of this EIR.

2.4.2 Thresholds of Significance

The following significant thresholds or criteria are not strictly those recommended in §15064.7 of the CEQA Guidelines; rather, they are derived from Appendix G of the Guidelines, and are used to determine if and to what extent a project may have a potentially significant impact on air quality and greenhouse gases.

The project would have a significant effect to air quality if the Proposed Project would:

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

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.

c) Expose sensitive receptors to substantial pollutant concentrations.

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

The project would have a significant effect on greenhouse gases if the Proposed Project were to:

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

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

2.4.3 Regulatory Framework

AIR QUALITY

Federal and State

Federal and state agencies have adopted air quality standards for a variety of pollutants. The Federal Clean Air Act (FCAA) requires the U.S. Environmental Protection Agency (U.S. EPA) to identify National Ambient Air Quality Standards (NAAQS), or "national standards" to protect public health and welfare. The California Clean Air Act (CCAA) became effective on January 1, 1989 and mandated health-based air quality standards at the state level. The California Air Resources Board (CARB) is responsible for enforcing state standards, which are generally more stringent than federal standards. One of the ways standards are applied is through State Implementation Plans (SIP), which are prepared to assist regional air quality management districts in meeting the federal and state ambient air quality standards in accordance with the deadlines specified in the Federal Clean Air Act (CAA) and emission reduction targets of the CCAA.

Criterial Pollutants

Federal and state air quality standards established for specific pollutants, which are called "criteria pollutants," are designed to protect the general population and especially that segment of the population that is most susceptible to respiratory distress or infection, including the elderly, children, asthmatics, or those weak from disease or illness. The following air pollutants are collectively known as criteria air pollutants and are defined as those pollutants for which established air quality standards have been adopted by federal and state governments:

Ozone (O_3) is a pungent, colorless, toxic gas, and a component of photochemical smog. It is formed when byproducts of combustion react in the presence of ultraviolet sunlight. This process takes place in the atmosphere where oxides of nitrogen combine with reactive organic gases, such as hydrocarbons. Exposure to ozone can result in diminished breathing capacity, increased sensitivity to infections, and inflammation of the lung tissue. Children and people with pre-existing lung disease are most susceptible to the effects of ozone.

Carbon Monoxide (CO) is a colorless, odorless, toxic gas and a byproduct from the partial combustion of fossil fuels, most notably from automobiles and other motor vehicles. Carbon monoxide passes through the lungs directly into the blood stream and reduces the amount of oxygen reaching the vital organs, such as the heart, brain and tissues. In high concentrations, carbon monoxide can contribute to the development of heart disease, anemia, and impaired psychological behavior. Individuals that have heart and blood diseases, smokers, babies in utero, and people with chronic hypoxemia are most susceptible to the effects of CO. The SSAB is in non-attainment for the federal 8-hour O_3 standard.

Nitrogen Oxide (NO_x) includes Nitric oxide (NO) and Nitrogen dioxide (NO_2), which are the primary oxides of nitrogen, and combined are known as nitrogen oxides. These oxides are produced at high temperatures during combustion as byproducts of motor vehicles, power plants, and off-road equipment. NOx contributes to the formation of ozone serving as the primary receptor of ultraviolet light and initiating the photochemical reaction. Short-term exposure to nitrogen dioxide can result in airway constriction, diminished lung capacity, and is highly toxic by inhalation. Populations living near roadways are more likely to experience effects of nitrogen oxides due to elevated exposure to motor vehicle exhaust. The SSAB is in attainment for NO_2.

Sulfur Dioxide (SO_2) results from the combustion of high-sulfur content fuels, such as coal and petroleum. Sources include motor vehicle fuel combustion, chemical manufacturing plants, and sulfur recovery plants. Sulfur dioxide is a colorless, pungent, extremely irritating gas that can cause airway constriction and severe breathing difficulties in asthmatics. High levels of exposure can cause fluid accumulation in the lungs, damage to lung tissue, and sloughing off of cells lining the respiratory tract. The SSAB is in attainment for SO_2.

Particulate Matter (PM_{10} and $PM_{2.5}$) consist of fine suspended particles of ten microns or smaller in diameter, and are the byproducts of road dust, sand, diesel soot, windstorms, and the abrasion of tires and brakes. The elderly, children and adults with pre-existing respiratory or cardiovascular disease are most susceptible to the effects of PM. Elevated PM_{10} and $PM_{2.5}$ levels are also associated with an increase in mortality rates, respiratory infections, occurrences and severity of asthma attacks and hospital admissions. The SSAB is a non- attainment area for PM_{10} and is classified as attainment/unclassifiable for $PM_{2.5}$.

Volatile Organic Compounds (VOC) are also known as Reactive Organic Gas (ROG). This class of pollutants has no state or federal ambient air quality standards and is not classified as criteria pollutants; however, they are regulated because they are responsible for contributing to the formation of ozone. They also contribute to higher PM_{10} levels because they transform into organic aerosols when released into the atmosphere. VOCs pose a health threat when people are exposed to high concentrations. Benzene, for example, is a hydrogen component of VOC emissions known to be a carcinogen.

Lead (Pb) occurs in the atmosphere as particulate matter resulting from the manufacturing of batteries, paint, ink, and ammunition. Exposure to lead can result in anemia, kidney disease, gastrointestinal dysfunction, and neuromuscular and neurological disorders. Babies in utero, infants, and children are especially susceptible to health risks associated with exposure to lead by impacting the central nervous system and cause learning disorders. The SSAB is in attainment for lead.

The air quality of a particular locale is considered to be in attainment if the measured ambient air pollutant levels for O_3, CO, SO_2 (1-hour and 24-hour), NO_2, and PM_{10} and $PM_{2.5}$ are not exceeded and all other standards are not equaled or exceeded at any time in any consecutive three-year period. Attainment also assumes the national standards (other than O_3, PM_{10}, and those based on annual averages or arithmetic mean) are not exceeded more than once per year. The O_3 standard is in attainment when the fourth highest eight-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when 99 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

The following table shows the state and national ambient air quality standards for criteria pollutants.

Table 2.4-1
State and National Ambient Air Quality Standards

Pollutant	State Standards		National Standards	
	Averaging Time	Concentration	Averaging Time	Concentration
Ozone (O_3)	1-hour 8-hour	0.09 ppm 0.07 ppm	1-hour 8-hour	None 0.070 ppm
Carbon Monoxide (CO)	1-hour 8-hour	20.0 ppm 9.0 ppm	1-hour 8-hour	35.0 ppm 9.0 ppm
Nitrogen Dioxide (NO_2)	1-hour AAM	0.18 ppm 0.030 ppm	1-hour AAM	0.10 ppm 0.053 ppm
Sulfur Dioxide (SO_2)	1-hour 24-hour AAM	0.25 ppm 0.04 ppm None	1-hour 24-hour AAM	0.075 ppm 0.14 ppm 0.03 ppm
Particulate Matter (PM_{10})	24-hour AAM	50 µg/m^3 20 µg/m^3	24-hour AAM	150 µg/m^3 None
Particulate Matter ($PM_{2.5}$)	AAM 24-hour	12 µg/m^3 None	AAM 24-hour	12 µg/m^3 35 µg/m^3
Lead	30 day Avg.	1.5 µg/m^3	3 month Avg.	0.15 µg/m^3
Visibility Reducing Particles	None	None	None	None
Sulfates	24-hour	25µg/m^3	None	None
Hydrogen Sulfide	1-hour	0.03 ppm	None	None
Vinyl Chloride	24-hour	0.01 ppm	None	None

Source: California Air Resources Board, 1/3/19.
Notes: ppm = parts per million; ppb= parts per billion; µg/ m^3 = micrograms per cubic meter of air; AAM = Annual Arithmetic Mean.

Toxic Air Contaminants (TAC)

The US EPA regulates TACs through technology-based requirements that are implemented by state and local agencies. California regulates TACs through the air toxics program and the Air Toxics "Hot Spots" Information and Assessment Act.[1] The CARB works alongside the Office of Environmental Health Hazard Assessment (OEHHA) to identify TACs, and adopt Air Toxic Control Measures (ATCMs) to reduce the identified TACs. Where there are federal standards, CARB must, at minimum, adopt the standards established by the US EPA.

[1] AB 2588.

Regional and Local

Regional and local agencies have also assumed some responsibility for assuring that state and federal air quality standards are achieved. For the Coachella Valley, the South Coast Air Quality Management District (SCAQMD) is responsible for establishing air quality measurement criteria and relevant management policies for the Salton Sea Air Basin (SSAB).

The 2003 PM_{10} Coachella Valley State Implementation Plan (CVSIP) was jointly developed by the SCAQMD, Coachella Valley Association of Governments (CVAG) and its member cities and was approved by the USEPA. The 2003 PM_{10} CVSIP updated the 1990 plan, which was drafted as a requirement of the federal Clean Air Act to demonstrate expeditious attainment of PM_{10} standards.[2] On April 18, 2003, USEPA approved the updated CVSIP.

The SSAB, including the Coachella Valley, is subject to the provisions of the SCAQMD Rule Book,[3] which sets forth policies and other measures designed to meet federal and state ambient air quality standards. These rules, along with SCAQMD's 2016 Air Quality Management Plan are intended to satisfy the planning requirements of both the federal and state Clean Air Acts. The SCAQMD also monitors daily pollutant levels and meteorological conditions throughout the District. (See Appendix B: Air Quality and Greenhouse Gas Report for annual monitoring data).

The SCAQMD has established thresholds for certain criteria pollutants. Based on the District's emission thresholds for criteria pollutants, any project would be considered to have significant impacts to air quality if the daily emissions exceed the values shown in the table below during construction or operation:

Table 2.4-2
Emissions Thresholds for SCAQMD

Criteria Pollutant	Daily Threshold (pounds)
Carbon Monoxide (CO)	550
Oxides of Nitrogen (NOx)	100
Volatile Organic Compounds (VOC)	75
Oxides of Sulfur (SOx)	150
Particulate Matter (PM10)	150
Particulate Matter (PM2.5)	55

Source: SCAQMD daily thresholds for construction and operation within the Coachella Valley, April 2019.

Cathedral City General Plan
The following relevant policies of the General Plan specifically address air quality:

Air Quality and Climate Stability Element

Goal 1: Preservation and enhancement of local and regional air quality to assure the long-term protection of the community's health and welfare.

> **Policy 1 :** The City shall be proactive in regulating local pollutant emitters and shall cooperate with Coachella Valley Association of Governments and the South Coast Air Quality Management District to assure compliance with air quality standards.

[2] 2003 Coachella Valley PM_{10} State Implementation Plan, August 1, 2003.
[3] South Coast Air Quality Management District Rules and Regulations, Adopted February 4, 1977.

Policy 2 : The City shall fully implement dust control ordinances, and coordinate and cooperate with local, regional, and federal efforts to monitor, manage, and reduce the levels of major pollutants affecting the City and region, with particular emphasis on PM_{10} emissions.

Policy 3: City land use planning efforts shall assure that sensitive receptors are separated from polluting point sources, to the greatest extent practicable.

Policy 4: Development proposals brought before the City shall be reviewed for their potential to adversely impact local and regional air quality, and shall be required to mitigate any significant impacts.

Policy 5: The City shall encourage and promote the use of clean alternative energy sources for transportation, heating and cooling, lighting and other power needs.

Policy 6: The City shall encourage and support the development of facilities and projects that facilitate and enhance the use of alternative modes of transportation, including pedestrian-oriented retail and activity centers, dedicated bicycle and LSEV paths and lanes, and community-wide multi-use trails.

Policy 7: The City shall promote the expanded availability of mass transit services, coordinating with Sunline Transit Authority to link residential, commercial and resort businesses, and employment centers with the City's residential neighborhoods and nearby communities.

Policy 8: The City shall continue to implement effective street sweeping and post-windstorm cleanup programs to reduce the cumulative impacts of blowsand and nuisance dust resulting from construction activities, natural processes, and other sources.

Policy 9: The City shall promote public educational programs that describe the causes of air pollution, encourage the use of alternative energy sources, and recommend methods for reducing the impacts of blowsand.

Environmental Justice Element

Goal 6: Integrated air quality, land use, and transportation planning, policy and infrastructure that reduces emission of criteria pollutants and greenhouse gases from mobile and stationary sources.

Policy 6.1: Improve or maintain air quality for the promotion of population and environmental health.

GREENHOUSE GAS

Federal and State

U.S. Environmental Protection Agency

The United States Environmental Protection Agency (USEPA) is responsible for implementing federal policy to address global climate change. The USEPA implements several voluntary programs that help to reduce GHG emissions that focus on energy efficiency, renewable energy, methane and other non-CO2e gases, agricultural practices, and implementation of technologies to achieve GHG reductions. These voluntary programs include: the State Climate and Energy Partner Network, which encourages the exchange of information between federal and state agencies regarding climate and energy; the Climate Leaders program for companies; the Energy Star® labeling system for energy-efficient products; and the Green Power Partnership for organizations interested in buying green power.

In 2009, the USEPA issued a Final Rule for mandatory monitoring and reporting of GHG emissions by fossil fuel suppliers, industrial gas suppliers, direct GHG emitters and manufacturers of heavy-duty and off-road vehicles and vehicle engines that emit 25,000 metric tons or more of carbon dioxide equivalent per year. Implementation of 40 CFR Part 98 is referred to as the Greenhouse Gas Reporting Program (GHGRP).

Especially relevant, the USEPA adopted a Final Endangerment Finding for the six defined GHGs. This Endangerment Finding is required for the USEPA to regulate GHG emissions under Section 202(a)(1) of the Clean Air Act (CAA). In, 2010, the USEPA issued a Final Rule (GHG Tailoring Rule) that establishes a common-sense approach to addressing greenhouse gas emissions from stationary sources under CAA permitting programs, including the Prevention of Significant Deterioration (PSD) and title V Operating Permit Programs. The Tailoring Rule set initial emission thresholds - known as Steps 1 and 2 of the Tailoring Rule - for PSD and Title V permitting based on carbon dioxide equivalent (CO_2e) emissions.

In these phases, new construction projects that exceed a CO2e threshold of 100,000 tons per year and modifications of existing facilities that increase CO2e emissions by at least 75,000 tons per year are subject to permitting requirements. Additionally, operating facilities that emit at least 100,000 tons per year are subject to Title V permitting requirements for GHGs. New and existing industrial facilities that meet or exceed that threshold require a permit under the New Source Review Prevention of Significant Deterioration (PSD) and Title V Operating Permit programs. Step 3 of the GHG Tailoring Rule, issued on June 29, 2012, continued to focus GHG permitting on the largest emitters by retaining the permitting thresholds that were established in Steps 1 and 2. Step 3 revised the plantwide applicability limitations (PAL) regulations to allow a source that emits or has the potential to emit at least 100,000 tons per year of CO_2e, but that has minor source emissions of all other regulated NSR pollutants, to apply for a GHG PAL while still maintaining its minor source status[4].

Assembly Bill 1493 – The Pavley Bill

California was the first state to establish regulations that require the reduction of emissions of GHGs from motor vehicles. On September 24, 2004, the California legislature adopted the Pavley Bill that requires all motor vehicles of 2009 vintage or later to reduce their greenhouse gas emissions by about 30% by the year 2016.

Assembly Bill 32 - California Global Warming Solutions Act of 2006

On June 1, 2005 Governor Arnold Schwarzenegger issued executive order S-3-05, which calls for reduction in GHG emission to 1990 levels by 2020 and for an 80 percent reduction below 1990 levels by 2050. Also known as the California Global Warming Solutions Act of 2006 (AB 32) was adopted by the state legislature in 2006. It sets forth a program to achieve 1990 emission levels by 2020 and requires CARB to proclaim 1990 GHG emissions and develop a Scoping Plan, which sets forth GHG reduction methods. CARB has reported that 1990 GHG emissions totaled 427 million metric tons (MMT) for the state of California; CARB adopted a GHG scoping plan on December 11, 2008.The Scoping Plan includes a cap and trade program, green building strategies, recycling and waste reduction, and Voluntary Early Actions and Reductions. In November 2017, CARB released the 2017 Climate Change Scoping Plan that not only discusses the 2030 targets, but how to substantially advance toward the State's 2050 climate goal to reduce GHG emissions by 80 percent below 1990 levels.

Senate Bill 375

California SB 375 was signed by the Governor in September 2008 and is intended to at least in part implement greenhouse gas reduction targets set forth in AB 32 by setting regional "caps" on the GHGs emitted by the transportation sector. The bill encourages regional land use planning to reduce vehicle miles traveled and requires Metropolitan Planning Organizations (MPO) to adopt a sustainable communities strategy as part of their Regional Transportation Plans. The applicable MPO for the Coachella Valley is the Southern California Association of

[4] "Clean Air Act Permitting for Greenhouse Gases," United States Environmental Protection Agency. Website. www.epa.gov. Accessed June 2019.

Governments ("SCAG"), which adopted its most recent Regional Transportation Plan and sustainable communities strategy in April of 2016. The current reduction targets from SCAG's RTP and SCS are 9% reduction by 2020 and a 16% reduction by 2035, as compared to 2005 emissions levels.

Senate Bill 32

More recently, Executive Order B-30-15, was issued by Governor Brown on April 29, 2015 establishing a new California goal to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030 ensuring the state will continue its efforts to reduce carbon pollution. Most recently, this 40% target was codified through Senate Bill 32 (2016), which adds section 38566 to the Health and Safety Code and requires that CARB ensure statewide GHG emissions meet the 40% reduction target no later than Dec. 31, 2030.

Green Building Code

In January 2010, the State of California adopted the California Green Building Standards Code (CALGreen) per CCR Title 24, Part 11, which establishes mandatory green building standards for all buildings in California. The code covers five categories: planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and indoor environmental quality. These standards include a mandatory set of minimum guidelines, as well as more rigorous voluntary measures, for new construction projects to achieve specific green building performance levels. The City has adopted the Green Building Standards Code

Regional and Local

Riverside County Climate Action Plan

In December 2015, the County of Riverside approved a Climate Action Plan (CAP)[5]. The CAP, which was revised in July 2018, establishes goals and policies that incorporate environmental responsibility into its daily management of residential, commercial and industrial growth, education, energy and water use, air quality, transportation, waste reduction, economic development and open space and natural habitats to further their commitment towards reducing GHG emissions.

In order to reach the reduction target, the County of Riverside would need to implement various state policies and the additional local reduction measures described in the County's CAP. These measures encourage energy efficiency and renewable energy in buildings, transit-oriented planning, water conservation, and increased waste diversion. Riverside County does not have project- or region-specific thresholds for GHG emissions at this time. (See Section 2.4.5 for current County reduction targets).

Cathedral City Climate Action Plan, Energy Action Plan, and GHG Inventory

The City of Cathedral City completed its first Climate Action Plan in May 2013 in an effort to address climate change at the local level by reducing greenhouse gas emissions within its own operations and within the overall community. The Climate Action Plan provides a framework for the development and implementation of policies and programs that will reduce the City's emissions and is tracked via the City's Greenhouse Gas Inventory. In addition to the Climate Action Plan, the City prepared an Energy Action Plan (2013) to identify opportunities for cost savings through energy efficiency and actions necessary to meet the City's future energy needs, consistent with the energy policies set forth by the State of California. (See Section 2.4.5 for current City reduction targets).

Green for Life

The City participated in the Green for Life Initiative of the Coachella Valley Association of Governments (CVAG). It is a regional approach to achieving energy reductions, and includes: 1) a Green Building Program, 2) Climate Action Plan, 3) Energy Action Plan, 4) a benchmarking policy, energy management software installation and training, and a commissioning and retro-commissioning policy. An important component of the Green For Life Program is benchmarking and utility management, which includes a facilities inventory and thorough review of existing energy benchmarking policies.

5 "County of Riverside Climate Action Plan," Riverside County Planning Department. July 17, 2018

Cathedral City General Plan
The following relevant policies of the General Plan specifically address greenhouse gases and climate change:

Air Quality and Climate Stability Element

> **Policy 10:** The City shall continue to implement and update policies, regulations, and action plans that promote climate stability and greenhouse gas emission reductions, including but not limited to the Climate Action Plan, Energy Action Plan, Greenhouse Gas Inventory and Green for Life program.

Healthy and Sustainable Community Element

Goal 2: A safe and resilient city that maximizes sustainability and minimizes community health and safety risks.

> **Policy 2.2**
> The City shall promote a sustainable future through reductions in greenhouse gas emissions, alternatives to gas-powered vehicles, implementation of green building standards, reduced waste, and conservation of energy and water.

Community Design Element

Goal 3: A community where principles of sustainability and environmental stewardship are an inherent and fully integrated part of the design and development of the entire city.

> **Policy 3.1:** The City shall apply the principles of sustainability in all aspects of community design, development and regulation on both a public and private sector level.

Goal 5: A community-wide multi-modal transportation system that addresses the City's desire to facilitate all modes of travel and reduce dependency on the use of motor vehicles, while helping to meet the City's other community design goals.

> **Policy 5.1**: As many services and activity areas as possible, including commercial, professional and health services, should be located with convenient multi-modal access, including within easy walking or biking distance of transit stops.

Open Space and Conservation Element

Goal 1: The appropriate use of energy and mineral resources to assure that both limited and renewable resources are sustainable in the long-term.

> **Policy 1:** Encourage conservation in the planning and construction of urban uses and in the regional transportation system.
>
> **Policy 2:** The General Plan and other City documents, such as the 5 Year Capital Improvement Program, shall assure an efficient circulation system and land use pattern in the City which minimizes travel.
>
> **Policy 3**: Support long-term strategies, consistent with state and federal legislation and regulations, that assure affordable, reliable and environmentally sustainable production and delivery of electrical power to the community.

Policy 4: Continue to proactively support and participate in local and regional efforts to develop and operate alternative systems that take advantage of local wind, solar and other renewable resources.

Policy 5: To further reduce nonrenewable energy use in transportation, the City shall facilitate provision of information on bike and NEV routes, bus routes and the transit network, ridesharing and ride-booking services to residents and businesses.

Policy 6: The City shall continue to explore and update policies that increase energy efficiency and the use of alternative sources for the economic, environmental and social benefit of the City.

2.4.4 Regional Environmental Setting

AIR QUALITY

Air pollution is any chemical, physical or biological process that modifies the chemistry and other characteristics of the atmosphere. The primary contributor to air pollution is the production of byproducts from the combustion of fossil fuels containing a number of air polluting substances. These emissions are responsible for the poor air quality that is evident in industrial centers and elsewhere worldwide.

Topographic or geomorphic conditions in the Coachella Valley have had a profound effect on and are an integral part of climate and the diverse environments encompassed in the Coachella Valley. The mountains create a "rain shadow", effectively isolating the valley from the prevailing cooler and wetter marine conditions along the coast, and creating a dry, subtropical desert environment. The area is subject to daily temperature extremes ranging from approximately 30°F to 80°F in winter and summer daytime temperatures that range between 75°F and 120°F. In the surrounding mountains, temperatures are generally cooler than those on the valley floor, with an approximate 5°F decrease per 1,000 feet of elevation increase. In general, the Valley floor is characterized by low humidity and rainfall, and a high percentage of days of sunshine.

Winter brings the majority of rainfall, although occasional intense storms occur in late summer or early fall that can make substantial contributions to annual rainfall. These are sometimes intense storms that result in rainfall on surrounding mountain slopes rather than on the Valley floor. Mean annual rainfall averages between 2 to 4 inches on the upper desert floor and about fifteen (15) inches in the nearby mountains.

When the desert floor heats up and the Valley air mass rises, the resulting thermal low pressure draws in cooler, denser marine air from the west that is funneled through the narrow San Gorgonio Pass. This effect produces strong and sustained winds, which constitute a major influence on the Valley's climate. As they pass through the valley, these winds often lift and transport large quantities of sand and dust, impacting visibility and air quality.

Air inversions can become a layer of stagnant air is trapped near the ground that is loaded with pollutants from motor vehicles and other sources. Inversions occasionally occur in the Coachella Valley due to local geological and climatic conditions. Inversions create conditions of haziness caused by suspended water vapor, dust, and a variety of chemical aerosols. Due to local climactic conditions, inversion layers generally form 6,000 to 8,000 feet above the desert floor.

The Coachella Valley, including the project planning area, is located within the Salton Sea Air Basin (SSAB), which is monitored and regulated by the South Coast Air Quality Management District (SCAQMD). Monitoring stations within the SSAB are located in Indio and Palm Springs and have provided a record of air quality conditions for the region since 1985 and 1987, respectively. Historically, air quality in the SSAB has not exceeded state or federal standards for carbon monoxide (CO_2), nitrogen dioxides (NO_2), sulfur dioxide (SO_2), reactive organic gases (ROG) or lead (Pb).

Pollutants of primary concern in the Coachella Valley are ozone (O_3) and particulate matter (PM_{10}). The SSAB is in non-attainment for ozone (O_3) and PM_{10}. For national area designations, the Coachella Valley is in non-attainment (Severe-15) for the federal 8-hour ozone standard, and serious non-attainment for the federal 24-hour PM_{10} standard.

State standards for the Coachella Valley similarly designate a non-attainment status for ozone and PM_{10}. These pollutants pose the most significant threat to public health and may result in diminished breathing capacity, increased sensitivity to lung infections, inflammation of the lung tissue, and other respiratory distress.

PM_{10} Emissions

Historically, PM_{10} levels in the Coachella Valley are elevated due to fugitive dust emissions from grading and construction activities, agricultural practices, and strong wind. The finer materials, including sand and silt, can be picked up and transported by the wind and are referred to as "blowsand". PM_{10} particles associated with blowsand are of two types: (1) natural PM_{10} produced by direct particle erosion and fragmentation, and (2) secondary PM_{10} whereby sand deposited on roadways is further pulverized by motor vehicles and then re-suspended in the air by those vehicles. The project is located in a PM_{10} non-attainment area for the state and federal PM_{10} standard.

The Coachella Valley had become eligible for redesignation as attainment due to the annual average PM_{10} concentrations meeting the revoked federal standard. On February 25, 2010 the California Air Resources Board approved the Coachella Valley PM_{10} Redesignation Request and Maintenance Plan from serious non-attainment to attainment for the PM_{10} National Ambient Air Quality Standard under CAA Section 107. The PM_{10} data from the Coachella Valley monitors shows attainment of the PM_{10} 24-hour NAAQS after the removal of the flagged high-wind exceptional events, for which SCAQMD supporting documentation will be submitted and subsequent U.S. EPA approval will be required.

However, U.S. EPA has requested that SCAQMD conduct additional ambient monitoring in the southeastern portion of the Coachella Valley before the redesignation can be considered. This new station has been in operation since 2013 in the community of Mecca, and redesignation will be revisited upon analysis of the required 3 full years of data. As of January 2019, the Environmental Protection Agency has not re-designated the PM_{10} classification for the Coachella Valley[6]. The Coachella Valley continues to exceed the state standard and is in a serious non-attainment area for PM_{10}.

SCAQMD employs measures to reduce particulate matter in the District, sets forth new measures that could further reduce particulate matter, and lists those new measures that need further evaluation prior to implementation. In addition, applicable state code and AQMD Rules, including Rule 403 (Fugitive Dust), enforce fugitive dust compliance for all activities within the SSAB.

Ozone Emissions

Under the Federal Clean Air Act, the Coachella Valley portion of the SSAB is classified as a "severe-15" O_3 non-attainment area for the 8-hour state standard, which means that the region must come into compliance with Federal ozone standards by December 31, 2027. With future emission controls, the Coachella Valley will achieve the 2008 8-hour federal O_3 standard by 2024.

SCAQMD studies indicate that most O_3 is transported to the Salton Sea Air Basin from the upwind South Coast Air Basin (SCAB). It is difficult to quantify the amount of ozone contributed from SCAB; however, reduced O_3 concentration in the SSAB depends, in part, upon reduced ozone emissions in the South Coast Air Basin.

6 "EPA Green Book Designated Non-attainment Areas for All Criteria Pollutants," Accessed January 2019.

GREENHOUSE GAS

Air pollution is a chemical, physical or biological process that modifies the chemistry and other characteristics of the atmosphere. The primary contributor to air pollution is the burning of fossil fuels used in transportation, power and heat generation, and industrial processes. The byproducts from the combustion of fossil fuels can contain a number of air polluting substances. These emissions are responsible for the poor air quality that is evident in industrial centers worldwide.

Some air polluting agents are also greenhouse gases (GHG), such as carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated gases (hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride), which are released into the atmosphere through natural processes and human activities. These gases are termed greenhouse gases due to their shared characteristic of trapping heat, and are believed to be responsible for the global average increase in surface temperatures of 0.7-1.5 °F that were observed during the 20th century. The quantity of greenhouse gases in the atmosphere has increased significantly over a relatively short period

California is the second largest greenhouse gas contributor in the U.S. and the sixteenth largest in the world. In 2004, California produced 492 million metric tons of CO_2 equivalent (MMTCO2e), which was approximately 7% of all U.S. emissions. However, in 2016, California's total emissions were 429.4 MMTCO$_2$e, representing an overall decrease of 12.7% since peak levels in 2004. This puts total emissions just below the 2020 target of 431 million metric tons.

During the 2000 to 2016 period, per capita GHG emissions in California continued to drop from a peak in 2001 of 14.0 tons per person to 10.8 tons per person in 2016, a 22.8% decrease.[7] This decrease may be due to increases in the effectiveness of energy conservation in buildings (Title 24 requirements) and the increased use of renewable energy, including solar generation, hydropower, and wind energy.

The transportation sector remains the largest source of GHG emissions in the state, accounting for 39% of California's emissions in 2016. Regulations and improved fuel efficiency of the state's vehicle fleet will drive down emissions over time, but population growth, lower fuel prices, improved economic conditions and higher employment rates are potential factors that may increase fuel use.[8]

2.4.5 Existing Conditions

AIR QUALITY

Cathedral City is located within the Salton Sea Air Basin (SSAB) and is within the jurisdiction of the South Coast Air Quality Management District (SCAQMD). In the project area, air quality is regulated by the SCAQMD, as well as federal and State policy. Air quality in the Salton Sea Air Basin has been impacted by emissions associated with increased development, population growth, and vehicle emissions. Although air pollution is emitted locally from various sources, some of the degradation of air quality within the Salton Sea Air Basin can be attributed to sources tributary to, but located outside of the basin.

Criteria Air Pollutants

Currently, air quality in the SSAB exceeds State and federal standards for fugitive dust (PM_{10}) and ozone (O_3), and is in attainment/unclassified for $PM_{2.5}$. Ambient air quality in the SSAB, including the project area, does not exceed state and federal standards for carbon monoxide, nitrogen dioxides, sulfur dioxide, lead, sulfates, hydrogen sulfide, or Vinyl Chloride. The following table shows the basin's federal and State attainment status for criteria pollutants.

[7] "California Greenhouse Gas Emission Inventory: 2000-2016," California Environmental Protection Agency Air Resources Board, 2018.

[8] Ibid.

Table 2.4-3
Salton Sea Air Basin Designation Status

Criteria Pollutants	Federal Designation	State Designation
Ozone – 8-hour standard	Nonattainment	Nonattainment
Carbon Monoxide	Attainment	Attainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment/Unclassified	Attainment
PM_{10}	Nonattainment	Nonattainment
$PM_{2.5}$	Attainment	Attainment

Source: CARB Air Quality Planning Branch, 2019

GREENHOUSE GAS

Riverside County

Riverside County has set a goal in accordance with AB 32 to reduce emissions back to 1990 levels by the year 2020. This target was calculated as a 15% decrease from 2008 levels, as recommended in the AB 32 Scoping Plan. The estimated community-wide emissions for the year 2020, based on population and housing growth projections associated with the assumptions used in the County's 2015 General Plan Update, are 12,129,497 MT CO2e. In order to reach the reduction target, Riverside County must offset this growth in emissions and reduce community-wide emissions to 5,960,998 MT CO2e by the year 2020.

Cathedral City

In 2010, Cathedral City was over its 1990 baseline emissions value by 53,439 tonnes (236,863 tonnes). With growth predicted to exceed 19% between 2010 and 2020, "business as usual" conditions could reach 239,333 tonnes by 2020. To achieve the AB 32 target by 2020, Cathedral City would have to cut GHG emissions by 23.4%, or 55,909 tonnes for a total of 183,424 tonnes.

The following is a summary of major findings in the 2013 Greenhouse Gas Inventory:

- Communitywide emissions in 2010, using guidelines approved by the California Air Resources Board, total 236,863 tonnes CO2e.
- This level is 29.1% above 1990 target levels referenced in AB 32—183,424 tonnes CO2e.
- The municipal contribution to the community's emissions footprint is 1.3%, or 3,104 tonnes CO2e.
- Electricity—predominantly used for air conditioning—is responsible for 39.9% of the community's emissions.
- At 4.6 tonnes per capita, Cathedral City has low emissions relative to its neighboring cities.
- Cathedral City's transportation emissions are high relative to neighboring cities due to a larger segment of Highway 111.
- The per capita regional transportation emissions value of 2.8 tonnes CO2, when added to City emissions, puts Cathedral City's total emissions per capita at 7.4 tonnes CO2e.

2.4.6 Project Impacts

The following air quality and greenhouse gas analysis assumes that buildout of the General Plan would occur in 2040. This analysis is based on projected land uses included in the Project Description, as well as traffic trips provided by Urban Crossroads (2018). Operational emissions were calculated by using California Emissions Estimator Model (CalEEMod) version 2016.3.2. CalEEMod is a computer program that can be used to estimate anticipated emissions associated with land development projects in California. The model calculates criteria pollutant emissions, including CO, PM_{10}, $PM_{2.5}$ and the ozone precursors ROG and NOx. CalEEMod output tables are provided in Appendix B of this EIR.

The following assumptions were entered into the CalEEMod software:

- Buildout year: 2040
- Land use types and square footages were derived from the Proposed and Existing Land Use Tables (1-2 and 2-1)
- On-road traffic emission projections are based on the trip generation comparison results in the Transportation Analysis (Appendix E). Per the Transportation Analysis, the currently adopted land use table (2009 General Plan) will generate approximately 1,059,000 daily trips and 7,346,153 daily vehicle miles traveled (VMT), and the proposed 2040 land use table will generate approximately 1,052,000 daily trips and 7,257,944 daily VMTs.

AIR QUALITY

Would the Project:

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

Cathedral City is located within the SSAB, which is governed by the SCAQMD. SCAQMD is responsible for monitoring criteria air pollutant concentrations and establishing management policies for the SSAB. All development within the SSAB, including the Proposed Project, is subject to the 2016 SCAQMD Air Quality Management Plan and 2003 PM_{10} Coachella Valley State Implementation Plan. These comprehensive plans establish control strategies and guidance on regional emission reductions for air pollutants.

A project is considered to be in conformity with adopted air quality plans if the project adheres to the requirements of the South Coast Air Quality Management Rule Book[9] and Air Quality Management Plan[10]. Divergence from adopted attainment or maintenance plans would result in non-conformance, and occurs when a proposed project conflicts with or would result in a delay of implementation for any attainment or maintenance plan. A project is conforming if it complies with all applicable District rules and regulations, adopted and forthcoming control measures, and is consistent with the growth forecasts in the applicable plan(s) (or is directly included in the applicable plan). Conformity with growth forecasts can be established by demonstrating that the project is consistent with the land use plan that was used to generate the growth forecast. A non-conforming project would be one that increases the gross number of dwelling units, increases the number of trips, and/or increases the overall vehicle miles traveled in an affected area relative to the applicable land use plan.

The SCAQMD works directly with the Southern California Association of Governments (SCAG), county transportation commissions, and local governments, and cooperates actively with all State and federal government agencies. SCAG adopted the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS) to comply with metropolitan planning organization (MPO) requirements under the Sustainable Communities and Climate Protection Act. The Growth Management chapter of the RTP/SCS forms the basis of land use and transportation controls of the AQMP. Projects that are consistent with the projections of population forecasts are considered consistent with the AQMP. The Southern California Association of Governments (SCAG) forecasts that the City's population will be 68,100 in 2040.[11]

[9] South Coast Air Quality Management District Rules and Regulations, Adopted February 4, 1977.
[10] "Final 2016 Air Quality Management Plan," prepared by South Coast Air Quality Management District, March 2017.
[11] 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), Appendix: Demographics & Growth Forecast, Table 11, Southern California Association of Governments, December 2015.

There are currently 54,466 residents in Cathedral City. Buildout of the General Plan Update is projected to result in an additional 105,532 residents. This estimate is based on an additional 33,396 dwelling units that could be built in the planning area over the life of the General Plan, and the City's average of 3.16 persons per household. It assumes full occupancy of seasonal, recreational, and occasional occupancy dwelling units in addition to permanent residency units. Based on these assumptions, there would be a total of 159,998 residents at General Plan buildout.

The proposed 2040 General Plan buildout population will exceed SCAGs population projections for the 2016 AQMP and 2016-2040 RTP/SCS by 91,898 persons. The size and composition of the population has a direct effect on the amount of air quality emissions, being that an increase in population results in a correlated increase in the level of air quality emissions. However, State legislation, such as SB 375 and AB 32, as well as regional and local programs and policies have shown that with proper land use planning, adherence to building codes, especially Title 24, and opportunities for alternative modes of transport, this trend can be reversed. Nonetheless, the projected increase in the population size within the planning area as set forth in the General Plan Update, when compared to the SCAG population projections for the City, has the potential to conflict with or obstruct implementation of future Air Quality Management Plans.

The 2040 General Plan includes policies and programs that would reduce this impact, such as those set forth in the Air Quality and Climate Stability Element, which includes a number of policies that have been developed to reduce construction and operational air pollutant emissions associated with the 2040 General Plan. Such Policies include *AQCS Policies 1, 2, 4, 5, 6, 8, and EJ Policy 6.1.* In addition, adherence to the City's Climate Action Plan and Green for Life program are expected to substantially reduce emissions of air quality pollutants and reduce the per capita emission contribution. Section 2.4.7 Mitigation Measures, below, provides the list of City programs designed to avoid and or reduce air quality impacts to less than significant levels. These programs were designed to ensure the City's compliance with air quality management plans, regardless of changes in population projections. Therefore, impacts will be less than significant with mitigation measures *AQ-1* through *AQ-22*.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.

Pollutants of primary concern in the Coachella Valley are ozone (O_3) and particulate matter (PM_{10}). The SSAB is in non-attainment for ozone (O_3) and PM_{10}. For national area designations, the Coachella Valley is in non-attainment (Severe-15) for the federal 8-hour ozone standard, and serious non-attainment for the federal 24-hour PM_{10} standard.

Construction Emission Impacts

Construction activities that would occur over the next 20 years in accordance with the 2040 General Plan Update would cause temporary, short-term emissions of various air pollutions. The use of construction equipment would inevitably result in the emission of ROG and NOx, which are ozone precursors, as well as particulate matter. Project information regarding specific development projects would be needed in order to quantify and analyze the level of impact associated with construction activity. Buildout of the General Plan will result in a mix of small- and large-scale projects that will be required to adhere to the City's procedures and regulations as they relate to CEQA analysis and mitigation. It is possible that some large-scale projects could substantially increase criteria pollutants through the year 2040. Actual significance would be determined on a project-by-project basis as future development applications are submitted.

In addition, the Air Quality and Climate Sustainability Element would serve to control construction emissions, including coordination with the SCAQMD during the review of new development projects (*AQCS Policy 1,* mitigation measure *AQ-5*), implementing dust control measures (mitigation measures *AQ-7, AQ-8*; SCAQMD Rule 403.1), and requiring mitigation measures to reduce significant impacts (mitigation measure *AQ-6*). All new development within the Planning Area shall also adhere to SCAQMD rules and regulations for all construction related activities. The policies and programs set forth in the 2040 General Plan will ensure that potential construction emissions from new development will be mitigated to the greatest extent feasible in accordance with SCAMD requirements. Impacts are less than significant.

Operational Emission Impacts

Daily activities at operations will result in the emission of air quality pollutants from the use of electricity and natural gas, and will be emitted from area sources and moving sources. The use of electricity within the Planning Area results in offsite emissions from the production of electricity. Although emissions associated with electricity do not occur within the physically boundary of the Planning Area, they are considered as part of the operational impacts from buildout of the General Plan Update. Emissions from natural gas occur from the combustion of natural gas within the Planning Area for operational activities such as heating and cooling, and cooking. Area source emissions include the use of consumer products, the application of architectural coatings, hearth fuel combustion, and fuel used for landscaping purposes. Moving sources include emissions from vehicles at buildout of the General Plan Update.

The SCAQMD does not currently recommend quantified analyses of construction and/or operational emissions from multiple development projects nor provides methodologies or thresholds of significance to be used to assess the significance of cumulative emissions generated by multiple cumulative projects, including buildout of a General Plan. However, it is recommended that a project's potential contribution to cumulative impacts should be assessed utilizing the same significance criteria as those for project-specific impacts. Furthermore, SCAQMD states that if an individual development project generates less than significant construction or operational emissions, then the development project would not generate a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment. Individual projects proposed within the General Plan Planning Area will be reviewed on a case-by-case basis for their potential to result in a cumulatively considerable contribution to non-attainment criteria pollutants under CEQA.

As shown in the table below, operational air quality emissions for the 2040 General Plan have the potential to result in a cumulatively considerable net increase of CO, NOx, SOx, PM_{10}, $PM_{2.5}$, and ROG. The majority of criteria pollutant emissions are due to mobile sources. The 2040 General Plan policies that promote the reduction of mobile emissions through transportation planning include *CD Policy 5.1, OSC Policy 2, and OSC Policy 5*.

Table 2.4-4
Operational Emissions Summary
Existing vs. Proposed Land Use
(lbs./day)

	CO	NO_x	ROG	SO_x	PM_{10}	$PM_{2.5}$
Existing LU Table						
Area	4,637.86	509.91	2,744.19	3.16	61.82	61.82
Energy	209.39	399.20	46.04	2.51	31.81	31.81
Mobile	17,046.83	13,529.10	1,455.39	81.58	6,278.86	1,700.50
TOTAL:	**21,894.08**	**14,438.21**	**4,245.62**	**87.25**	**6,372.49**	**1,794.13**
SCAQMD Threshold*	**550.00**	**100.00**	**75.00**	**150.00**	**150.00**	**55.00**
Exceeds Threshold	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**Yes**
Proposed LU Table						
Area	4,686.34	515.21	2,816.59	3.19	62.46	62.46
Energy	222.46	414.35	47.71	2.60	32.96	32.96
Mobile	16,904.81	13,432.64	1,444.33	80.89	6,223.26	1,685.44
TOTAL:	**21,813.61**	**14,362.20**	**4,308.63**	**86.68**	**6,318.68**	**1,780.86**
SCAQMD Threshold*	**550.00**	**100.00**	**75.00**	**150.00**	**150.00**	**55.00**
Exceeds Threshold	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**Yes**

Source: CalEEMod Version 2016.3.2. See Appendix A for detailed tables. Value shown represents the average emissions of summer and winter outputs.
* Source: "SCAQMD Air Quality Significance Thresholds" prepared by SCAQMD.

Cumulative Contribution: Non-Attainment Criteria Pollutants

A significant impact could occur if the project would make a considerable cumulative contribution to federal or State non-attainment pollutants. The Coachella Valley portion of the SSAB is classified as a "non-attainment" area for PM_{10} and ozone. Cumulative air quality analysis is evaluated on a regional scale (rather than a neighborhood scale or city scale, for example) given the dispersing nature of pollutant emissions and aggregate impacts from surrounding jurisdictions and air management districts. Any development project or activity resulting in emissions of PM_{10}, ozone, or ozone precursors will contribute, to some degree, to regional non-attainment designations of ozone and PM_{10}. As shown above, projections of these pollutants exceed established daily thresholds and therefore have the potential to result in a cumulative impacts to ozone and PM_{10}. However, subsequent CEQA documentation prepared for individual projects would have project-specific data and would be required to address, and to the extent feasible, mitigate any significant air quality impacts to a less than significant level. Therefore, with implementation of the 2040 General Plan programs and mitigation measures set forth in Section 2.4.7, below, impacts to non-attainment criteria pollutants are expected to be reduced to less than significant levels on a case-by-case basis. (See mitigation measures *AQ-6*).

c) Expose sensitive receptors to substantial pollutant concentrations.

The 2040 General Plan land use plan has been designed to provide a buffer between sources of air quality emissions and sensitive receptors (*AQCS Policy 3*). CARB adopted the Air Quality and Land Use Handbook (CARB, 2005) to provide guidance to planning agencies and air districts for considering potential impacts to sensitive land uses proposed in proximity to toxic air contaminants (TAC) emission sources. The goal of the guidance document is to protect sensitive receptors, such as children, seniors, and acutely ill and chronically ill persons, from exposure to TACs emissions by encouraging adequate separation between new sensitive land uses (residential, educational, healthcare) proposed adjacent to TAC sources in order to minimize land use incompatibility.

To further ensure that sensitive receptors are protected from potential health risks, the following additional program is recommended for the 2040 General Plan:

> **AQCS Program 3.C: Health Risk Evaluation**. Prior to project approval, the City or project applicant shall evaluate health risks when proposed developments would result in new sensitive receptors near existing sources of substantial toxic air contaminants (TACs) or the development of sources of substantial toxic air contaminants near existing sensitive receptors. Evaluation would be based on consideration of the California Air Resource's Board Air Quality and Land Use Handbook: A Community Health Perspective distance recommendation between sources and receptors. If the project would not meet the distance recommendations between sources and receptors, the City shall require the applicant to ensure that TAC impacts would be below the carcinogenic threshold (i.e., probability of contracting cancer for the Maximally Exposed Individual would be less than 10 in one million) and below the non-carcinogenic threshold (i.e., result in a Hazard Index less than 1 for the Maximally Exposed Individual). In addition, several measures to reduce potential risk from commercial or industrial land uses that would be considered include:
>
> - Proposed commercial or industrial land uses that have the potential to emit toxic air contaminants (such as loading docks for diesel delivery trucks) would be located as far away as possible from existing and proposed sensitive receptors.
> - Signs would be posted at all loading docks and truck loading areas which indicate that diesel-powered delivery trucks must be shut off when not in use for longer than 5 minutes on the premises in order to reduce idling emissions.
> - Proposed commercial and industrial land uses that have the potential to host diesel trucks would incorporate idle reduction strategies that reduce the main propulsion engine idling time through alternative technologies such as, IdleAire, electrification of truck parking, and alternative energy sources for transport refrigeration units to allow diesel engines to be completely turned off.

Subsequent CEQA documentation prepared for individual projects would have project-specific data and would be required to address, and to the extent feasible, mitigate any significant air quality impacts to a less than significant level. Also, the addition of the Health Risk Evaluation program would guide health risk considerations and reduce potential toxic air contaminant exposure at existing and new sensitive receptors, thereby reducing this impact to less than significant levels because TAC significance thresholds would not be exceeded. Thus, the proposed 2040 General Plan Update is not expected to expose sensitive receptors to substantial pollutant concentrations and air quality impacts to sensitive receptors are expected to be less than significant.

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

The 2040 General Plan Update includes land uses that have the potential to generate objectionable odors, particularly cannabis related businesses. The City's Municipal Code (CCMC) section 9.108.080 A.1 requires that all cannabis cultivation businesses be equipped with an odor absorbing ventilation and exhaust system so that odors from the business cannot be detected outside the building. In addition, individual projects which may be proposed within the Planning Area will be reviewed based on their potential to generate odors under CEQA. Therefore, it is considered unlikely that implementation of the General Plan Update would result in objectionable odors affecting a substantial number of people. The 2040 General Plan Update is expected to have less than significant impacts in regard to odors or other emissions.

GREENHOUSE GAS

Would the Project:

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

Construction

Individual development projects proposed under the 2040 General Plan will be evaluated on a case-by-case basis per CEQA requirements and using project specific information to estimate GHG emissions and determine the level of impact. Emissions of GHG's during construction activities have the potential to either directly or indirectly result in a temporary impact on the local and regional air quality conditions. GHG emissions from construction will end once construction activities are complete. Therefore, the generation and emission of GHG's from construction are not expected to have a long term or lasting impact on the environment and impacts to air quality from construction are expected to be less than significant.

Operation

There are five emission source categories that contribute either directly or indirectly to operational GHG emissions, including energy/electricity usage, water usage, solid waste disposal, area emissions (pavement and architectural coating off-gassing), and mobile sources. Operational GHG emissions under the existing General Plan land use plan were compared to GHG emissions under the proposed land use plan for buildout in 2040. For this analysis purposes, GHG emissions were estimated using the CalEEMod software, which bases GHG projections on land use factors for energy use, water use, solid waste generation, and wastewater generation. It should be noted that GHG emission projections in the City's CAP and GHG Inventory were based on actual usage and not default land use factors[12].

Therefore, actual GHG emission projections may vary.

[12] Disclaimer: The International Council for Local Governmental Initiatives (ICLEI) Clean Air and Climate Protection (CACP) software and California Air Resources Board-approved Local Government Operations Protocol (LGOP) were used for the City's Greenhouse Gas Inventory and Climate Action Plan. The GHG emission projections for the City's Climate Action Plan and Greenhouse Gas Inventory are based on direct emissions from major source categories within the City limits, which were derived from utility bills and real consumption data. Results shown in Table 2.4-5 may differ from future CAP and GHG Inventory updates.

To achieve the AB 32 target by 2020, Cathedral City would have to cut GHG emissions by 23.4%, or 55,909 tonnes for a total of 183,424 tonnes (1990 levels). To achieve the SB 32 target of 40% below 1990 emissions, the City would need to reduce emissions to a total of 110,054 tonnes. Currently, there are no adopted 2040 reduction targets, however CARB is working towards a 2050 climate goal to reduce GHG emissions by 80 percent below 1990 levels, which would require the City to reduce GHG emissions to a total of 36,685 tonnes annually.

The following GHG estimates are provided to compare 2040 conditions under the existing and proposed land use plans. Based on these results, the proposed 2040 General Plan would not only increase the City's existing GHG emissions, but emissions would also fail to achieve the State's GHG reduction targets for 2020, 2030, and 2050, as well as GHG reduction targets set forth in the City's CAP.

Table 2.4-5
2040 Operational GHG Emission Comparison
(Metric Tons/Year)

	Existing GP LU	Proposed GP LU	Proposed 2040 Difference
Area Emissions	1,820.48	1,839.46	+ 18.98
Energy Emissions	298,088.72	309,553.68	+ 11,464.96
Mobile Emissions	1,275,498.08	1,261,202.65	- 14,295.43
Waste Emissions	36,993.72	38,848.62	+1,854.90
Water Emissions	54,009.62	58,424.33	+4,414.71
Total	**1,666,410.62**	**1,669,868.74**	**+3,458.12**
Per Capita*	**24.47**	**10.43**	**- 14.04**

Source: CalEEMod Version 2016.3.2. See Appendix B of this DEIR for detailed tables. Values shown represent the total unmitigated GHG emission projections for 2040 under existing GP conditions vs proposed GP conditions.
* Based on population estimates provided in Section 2.14 Population and Housing. Assumes 2040 population would be 68,100 under existing conditions and 159,998 under proposed land use conditions.

Conclusion
Operational activities would result in the generation and emission of greenhouse gases, which could have significant impacts to air quality locally and regionally. Implementation of the Climate Action Plan is intended to reduce impacts associated with the emission of greenhouse gases within City limits to levels that are less than significant. In addition, *AQCS Policy 10* ensures that the City's CAP and GHG Inventory are regularly updated to include current trends in technology, climate regulations, and to track the City's efforts to reduce overall greenhouse gas emissions. *AQCS Policies 5 through 7* promote the use of alternative energy sources and modes of transportation that can further reduce the City's GHG emissions.

As previously stated, individual projects developed under the 2040 General Plan will be assessed on a case-by-case basis for potential impacts related to GHG emissions. Implementation of mitigation measures *AQ-9* through *AQ-42* will help to reduce GHG emissions to the greatest extent feasible. However, based on the GHG projections above, it is possible that the 2040 General Plan update would generate GHG emissions that could have a significant and unavoidable impact on the environment.

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

As previously discussed, the 2040 General Plan update would not only increase the City's GHG emissions when compared to the existing land use plan, but buildout emission projections will fail to achieve State GHG reduction targets for 2020, 2030, and 2050. It is possible that future GHG emission projects could be reduced with technology advancements, best management practices, and adherence SCAQMD rules and regulations. 2040 General Plan policies that promote GHG reductions through transportation and land use planning, efficient use of energy resources, and adherence to current trends in policies, regulations, and action plans include *AQCS Policy 10, HSC Policy 2.2, CD Policy 3.1, 5.1, and OSC Policies 1 through 6.*

Individual development projects proposed under the 2040 General Plan will be assessed on a case-by-case basis for potential impacts related to GHG emissions. Projects will be required to demonstrate adherence to applicable plans, policies, and regulations adopted for the purposed of reducing GHG emissions. Implementation of mitigation measures *AQ-9* through *AQ-42* will help to reduce GHG emissions to the greatest extent feasible. However, based on the GHG projections above, it is possible that the 2040 General Plan update would generate GHG emissions that are inconsistent with State reduction targets. Impacts will be significant and unavoidable.

2.4.7 Mitigation Measures

The Air Quality and Climate Stability Element sets forth a wide range of policies and programs that serve to avoid, minimize and mirtigate impacts to air quality ahd the emission of GHGs as a consequence of implementing the proposed General Plan. Impacts to air quality associated with the adoption and implementation of the proposed General Plan are potentially significant if left unmitigated. The avoidance, minimization and mitigation of potential impacts to air quality are addressed through a variety of General Plan programs, which are set forth below. Sub-headers indicate from which elements these are derived. Mitigation measures set forth below are provided to reduce General Plan air quality and greenhouse gas impacts to less than significant levels. As noted above and in Section 2.4.8, GHG emissions associated with implementation of the proposed General Plan may not be adequately reduced even with the application of all practicable measures:

Air Quality and Climate Change Element

AQ-1 PM_{10} Monitoring
On an on-going basis, the City shall continue to cooperate and participate in efforts to monitor and control PM_{10} emissions from construction and other sources, and all other air pollutants of regional concern. The City shall coordinate with CVAG and the SCAQMD to provide all reporting data for SCAQMD annual report.

AQ-2 Air Quality Data Records
The City shall maintain records of historic and current regional and local air quality trends and make them available to the public. Access to data may be made available via an Internet link, printed material, or other means.

AQ-3 Sensitive Receptors
The General Plan Land Use Map and Element shall be developed and maintained to identify and locate air pollution point sources, such as manufacturing operations and highways, at an appropriate distance from sensitive receptors, including hospitals, schools, hotels/motels, and residential neighborhoods.

AQ-4 Sensitive Receptor Buffer Zones
Buffer zones between sensitive receptors and potential air pollutant emitters shall be incorporated into new and proposed residential developments and other developments, to the greatest extent feasible.

AQ-5 CEQA Air Quality Analysis
The City shall conduct an Initial Study and, where appropriate, require a detailed air quality analysis for all proposals that have the potential to adversely affect local or regional air quality.

AQ-6 CEQA Analysis and Mitigation
Projects that may generate significant levels of air pollution shall be required to conduct detailed impact analyses and incorporate mitigation measures into their designs using the most advanced technological methods practicable. All proposed mitigation measures shall be reviewed and approved by the City prior to the issuance of grading or demolition permits.

AQ-7 Fugitive Dust Control Plans
The City shall continue to enforce a Fugitive Dust Emissions Ordinance to reduce and control local PM_{10} emissions. All dust control mitigation plans prepared by contractors, developers, and other responsible parties shall be reviewed and approved by the City prior to the issuance of grading or demolition permits.

AQ-8 Code Enforcement: Fugitive Dust and Blowsand
Provide consistent and effective code enforcement of construction and grading activities and off-road vehicle use to assure that the impacts of blowing sand and fugitive dust emissions are avoided or minimized.

AQ-9 Alternative Fuels: City Fleet
Where cost-effective, vehicles that use alternative fuel sources, such as compressed natural gas and electricity, shall be purchased and maintained for use in the City's vehicle fleet.

AQ-10 Energy Efficient Design
Site plans shall incorporate energy-efficient design elements, including appropriate site orientation, possibility for incorporation of active and/or passive solar design, and the use of shade and windbreak trees, to reduce fuel consumption for heating and cooling.

AQ-11 Solar Systems
The City shall support and promote the use of roof-top solar electric systems in new and existing development, and shall review the City Zoning Ordinance to ensure that City regulations do not create an undue burden on those who wish to install solar electric systems.

AQ-12 Alternative Energy: Community Wide
To encourage the use of alternative energy sources, installation of electric vehicle charging stations shall be encouraged in all new development and in major retrofits.

AQ-13 Alternative Modes of Transportation Planning
The General Plan Circulation and Mobility Element shall encourage the incorporation of appropriate alternatives to motor vehicles in the transportation network, and shall be periodically reviewed and updated to assure the future expanded use of such alternatives.

AQ-14 Non-Motorized Transportation Planning
The City shall pursue land use patterns and mechanisms, including Mixed-Use development and a balance of employment and housing opportunities that encourage pedestrian and other non-motorized transportation and minimize vehicle miles traveled.

AQ-15 Active Transportation/NEV Plan
The City Active Transportation/NEV Plan shall be funded and implemented to the maximum extent practicable in order to make safe and convenient alternative modes of travel the norm in the City

AQ-16 LSEV Planning
LSEV Revise ordinance to allow to the greatest extent practicable

AQ-17 Regional Mass Transportation Planning
Coordinate with CVAG, SCAG, Sunline Transit Agency and other public and private service providers to improve, expand, and optimize cost-effective regional mass transportation services.

AQ-18 Ridesharing Programs
Promote and support the development of ridesharing, carpooling, flexible work scheduling, telecommuting, and Park and Ride programs among public and private employers to decrease existing and future traffic levels in the Coachella Valley.

AQ-19 TDM Planning
The City shall consider adopting a Transportation Demand Management (TDM) Ordinance that applies to new or change-of-use non-residential developments employing 100 or more persons, and which requires the project proponent to demonstrate how the development will reduce the number of project-generated vehicle trips.

AQ-20 Air Quality Management Manual
Prepare and distribute to developers, contractors, consultants and others an air quality management manual that describes effective and appropriate methods of controlling and reducing development-related air pollutants, particularly PM_{10} emissions.

AQ-21 CAP, GHG Inventory, EAP, GFL Updates
Update the City's Climate Action Plan, Greenhouse Gas Inventory, Energy Action Plan and Green for Life program materials to include current trends in technology, climate regulations, and to track the City's efforts to reduce overall greenhouse gas emissions.

AQ-22 CEQA Analysis: CAP Measures
Projects that require CEQA analysis shall be required to conduct detailed impact analyses and incorporate mitigation measures into their designs using the City's current Climate Action Plan prescribed reduction measures for achieving greenhouse gas emission reduction targets. All proposed mitigation measures shall be reviewed and approved by the City prior to the issuance of grading or demolition permits.

Environmental Justice Element

AQ-23 Land Use Planning: Reduce Vehicular Trips
To the greatest extent practicable, require that development be located and designed to reduce vehicular trips (and associated air pollution) by utilizing compact development patterns while maintaining community character.

AQ-24 Sensitive Use Pollution Minimization
The city shall require new development with sensitive uses located adjacent to pollution sources be designed with consideration of site and building orientation, location of trees, and incorporation of ventilation and filtration to lessen and minimize any potential health risks.

Healthy and Sustainable Community Element

AQ-25 Energy and Resource Conservation
Continue to work collaboratively with local utility providers and regulatory agencies to assure the City is implementing the most appropriate and effective energy and resource conservation strategies.

AQ-26 Energy and Water Efficiency Incentives
Provide permitting-related and other incentives for energy- and water-efficient building projects, e.g. by giving green projects priority in plan review, processing, and field inspection services.

AQ-27 Low Income Energy Efficiency Projects
Partner with community services agencies to fund energy-efficiency projects, including heating/ventilation/air conditioning (HVAC), lighting, water heating equipment, insulation, and weatherization projects, for low income residents.

AQ-28 Energy Efficient Affordable Housing
Target local funding, including utility programs and Community Development Block Grant resources, to assist affordable housing developers in incorporating energy efficient designs and features.

AQ-29 Green Building Information
Develop and make available to developers, designers, and other interested parties informational materials about green building strategies and programs, including LEED and LEED-ND rating systems and certification programs.

Community Design Element

AQ-30 Sustainability Plan
The City design review process, whether for public or private development projects, shall include a thorough assessment of how and to what extent projects are sustainable, and a sustainability check list derived from the City Sustainability Plan, this element and other regulatory and policy documents, shall be developed and used to assess all project's sustainability.

AQ-31 Active Transportation/Complete Streets
The City shall implement its *Active Transportation Plan* and *Complete Streets* principles in a manner that encourages pedestrian and bicycle use and shall be spatially defined by buildings, trees and lighting, and discourages high speed traffic

Open Space and Conservation Element

AQ-32 Energy Efficient and Energy Conserving Design
The City shall provide developers with available data on energy efficient and conserving building design and technologies. This information, such as the City's *Green for Life* handbooks and may also include information from utilities, trade organizations, state agencies and other system resources that can enhance overall energy conservation.

AQ-33 Energy Education
Encourage Southern California Edison and other providers to facilitate the transfer of data, information and technologies to enhance public education on energy conservation.

AQ-34 SunLine Energy Management and Conservation
The City shall participate in the energy management and conservation efforts of SunLine Transit and encourage the expanded use of compressed natural gas, hydrogen fuel cell and other alternative-fuel buses with bike racks and other system improvements that enhance overall energy efficiency and conservation.

AQ-35 Minimize Travel via Land Use Planning
Amendments to the land use map and Land Use Element shall consider the provision of convenient neighborhood shopping, medical and other professional services appropriately located to minimize travel and facilitate the use of alternative means of transportation.

AQ-36 Commercial and Industrial Energy Management Systems
As a part of *Green for Life*, *Energy Action Plan* and other City programs, continue to evaluate the use of co-generation and other energy management systems for new larger industrial and commercial businesses in the City as they arise.

AQ-37 Community and Regional Multi-Modal Path
Facilitate the development of a community-wide and regional multi-modal path system to provide residents and visitors with alternatives to motor vehicle transportation.

AQ-38 Ridesharing Information
The City shall make available information on ridesharing, ride-booking and SunLine Transit services available to residents and businesses, throughout the City.

AQ-39 Internal Efficiency Upgrades
Establish a revolving loan fund for internal efficiency upgrades. Rules for use of the fund and its reimbursement will be established.

AQ-40 Workspace Energy and Cost Efficiencies
Implement the City's Commissioning/Retro-Commissioning practice and procedures to identify and plan for maintenance and enhancement of energy and cost efficiencies, as well as ensuring optimal comfort and human satisfaction in City workspaces.

AQ-41 State and Federal Incentives for Energy Efficiency
The City will leverage state and federal incentives for energy efficiency to augment incentives provided by Southern California Edison, Southern California Gas, and others. Consider energy efficiency in capital improvement budget discussions.

AQ-42 Municipal Solar and Alternative Energy
The City shall seek grants and partnerships to increase the development of solar PV systems, and the continued market growth in Electric Vehicle and Compressed Natural Gas vehicles, and associated charging/refueling stations at City facilities and elsewhere throughout the community.

Circulation and Mobility Element

AQ-43 The City shall apply to all development plans the adopted roadway classifications, and implement the Active Transportation Plan to maximize walking, bicycling, and use of LSEVs, and assure safe and efficient connections to City-wide and regional multi-modal facilities.

AQ-44 When initiating review of development proposals, the City shall consult and coordinate with SunLine and solicit comments and suggestions on bus stops and other public transit facilities and design concepts, including enhanced handicapped access, should be integrated into project designs.

2.4.8 Significance After Mitigation

AIR QUALITY – Less than Significant
The mitigation measures provided above have been programmed into the proposed 2040 General Plan Update to ensure impacts to air quality will be reduced to the greatest extent possible. Due to the nature of air quality impacts, all future development within the City will be analyzed on a case-by-case basis and mitigated accordingly. Impacts after mitigation are expected to be less than significant.

GREENHOUSE GAS – Significant and Unavoidable
The mitigation measures provided above have been programmed into the proposed 2040 General Plan Update to ensure impacts of greenhouse emissions will be reduced to the greatest extent possible. Due to the nature of greenhouse gases, all future development within the City will be analyzed on a case-by-case basis and mitigated accordingly. However, based on the GHG projections, it is possible that the 2040 General Plan Update would generate GHG emissions that could have a significant and unavoidable impact on the environment.

2.4.9 Cumulative Impacts

AIR QUALITY
Cumulative potential impacts to air quality were assessed under Section 2.4.6.b, above.

GREENHOUSE GAS
Cumulative impacts were analyzed on a regional scale due to the dispersing nature of these pollutant emissions and aggregate impacts from surrounding jurisdictions and air basins. Through analysis of the regional and statewide plans for GHG reductions was used. The geographic scope for the analysis of potential cumulative greenhouse gas impacts is the overall Salton Sea Air Basin region.

Based on the analysis above, the 2040 General Plan has the potential to make a cumulatively considerable contribution to GHG levels due to the increased emission levels. Although the 2040 General Plan policies and programs represent the best practicable strategies to reduce emissions associated with buildout, and are consistent with State regulations and guidelines, no additional mitigation is currently available to reduce this impact to a less than significant level. Cumulative impacts could be significant and unavoidable.

2.5 Biological Resources

2.5.1 Introduction

This section provides an overview of existing biological resource conditions within the General Plan area and surrounding region and an analysis of potential biological resource impacts that would result from implementation of the proposed General Plan Update and ATP Project. The regulatory environment and thresholds of significance are described. The project's potential biological impacts are discussed, and mitigation measures are set forth where needed. The discussion concludes with a discussion of potential residual and cumulative impacts.

2.5.2 Thresholds of Significance

The following significant thresholds or criteria are not strictly those recommended in §15064.7 of CEQA; rather, they are derived from Appendix G of CEQA, which is used to determine if and to what extent a project may have a potentially significant impact on biological resources. The proposed General Plan would have a significant effect on biological resources if it is determined that the project will:

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

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

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

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

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

2.5.3 Regulatory Framework

Federal

Endangered Species Act (ESA)

The federal Endangered Species Act (ESA) was enacted in 1973. Its purpose is to protect and preserve listed species and their ecosystems, with the goal of recovering species to a point where they no longer need protection under the ESA. The United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service are the designated federal agencies accountable for administering the ESA.

ESA defines species as "endangered" or "threatened" and provides regulatory protection at the federal level. An endangered species is an animal or plant species that is in danger of extinction within the foreseeable future throughout all or a significant portion of its range. A threatened species is one that is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

Section 9 of the ESA prohibits the "take" of listed (i.e., endangered or threatened) species. The ESA definition of take is "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct." Recognizing that take cannot always be avoided, Section 10(a) includes provisions for take that is incidental to, but not the purpose of, otherwise lawful activities. Specifically, Section 10(a)(1)(A) permits (authorized take permits) are issued for scientific purposes. Section 10(a)(1)(B) permits (incidental take permits) are issued for the incidental take of listed species that does not jeopardize the species. Section 10(a) of the ESA also establishes standards for the content of habitat conservation plans, such as the Coachella Valley Multiple Species Conservation Plan (CVMSHCP).

When a species is proposed for listing as endangered or threatened under the federal ESA, the USFWS must consider whether there are geographic areas that are essential to its conservation that require special management considerations or protections. Such areas are designated as "critical habitat." Federal agencies are prohibited from authorizing, funding, or carrying out any action that would jeopardize a listed species or destroy or modify its critical habitat. As defined by the ESA, "individuals, organizations, states, local governments, and other non-federal entities are affected by the designation of critical habitat only if their actions occur on federal lands, require a federal permit, license, or other authorization, or involve federal funding."

Migratory Bird Treaty Act (MBTA)

Treaties signed by the U.S., Great Britain, Mexico, Japan, and the countries of the former Soviet Union make it unlawful to pursue, capture, kill, or possess, or attempt to engage in any such conduct to any migratory bird, nest, egg, or parts thereof. As with the ESA, the MBTA allows the Secretary of the Interior to grant permits for the incidental take of protected migratory bird species.

Section 404 of the Clean Water Act

Section 404 of the Clean Water Act (CWA), administered by the U.S. Army Corps of Engineers (USACE), regulates the discharge of dredged and fill material into "Waters of the United States." The USACE has created a series of nationwide permits that authorize certain activities within waters of the U.S. provided that the proposed activity does not exceed the impact threshold for nationwide permits; takes steps to avoid impacts to wetlands where practicable; minimizes potential impacts to wetlands; and provides compensation for any remaining, unavoidable impacts through activities to restore or create wetlands. For projects that exceed the threshold for nationwide permits, individual permits under Section 404 can be issued.

State

California Endangered Species Act (CESA)

The California Endangered Species Act (CESA) is similar to the federal ESA; however, it is administered by the California Department of Fish and Wildlife (CDFW). It establishes procedures for the protection or preservation of native species threatened with extinction or experiencing a significant decline which could lead to a threatened or endangered designation. Under CESA, "endangered" species are defined as native species or subspecies in serious danger of becoming extinct throughout all or a significant portion of their range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease. "Threatened" species are native species or subspecies that, although not presently threatened with extinction, are likely to become endangered species in the foreseeable future in the absence of the special protection and management efforts of the CESA.

The CDFW is authorized to enter into "memoranda of understanding" with individuals, public agencies, and other institutions to import, export, take, or possess state-listed species for scientific, educational, or management purposes. CESA prohibits the take of state-listed species except as otherwise provided in state law. Unlike the federal ESA, CESA applies take prohibitions to species currently petitioned for state-listing status (candidate species). State lead agencies are required to consult with CDFW to ensure that actions are not likely to jeopardize the continued existence of any state-listed species or result in the destruction or degradation of occupied habitat.

The Native Plant Protection Act (NPPA)

The NPPA includes measures to preserve, protect, and enhance rare and endangered native plant species. Definitions for "rare and endangered" are different from those contained in CESA. However, the list of species afforded protection in accordance with the NPPA includes those listed as rare and endangered under CESA. NPPA provides limitations on take as follows: "no person will import into this state, or take, possess, or sell within this state" any rare or endangered native plants, except in accordance with the provisions outlined in the act. If a landowner is notified by CDFW, pursuant to section 1903.5, that a rare or endangered plant is growing on their property, the landowner shall notify CDFW at least 10 days prior to the changing of land uses to allow CDFW to salvage the plants.

Natural Community Conservation Planning (NCCP) Program

The NCCP, managed by the CDFW, is intended to conserve multiple species and their associated habitats, while also providing for compatible use of private lands. Through local planning, the NCCP planning process is designed to provide protection for wildlife and natural habitats before the environment becomes so fragmented or degraded by development that species listing is required under CESA.

Instead of conserving small, often isolated "islands" of habitat for just one listed species, agencies, local jurisdictions, and/or other interested parties have an opportunity through the NCCP to work cooperatively to develop plans that consider broad areas of land for conservation that would provide habitat for many species. Partners enroll in the programs and, by mutual consent, areas considered to have high conservation priorities or values are set aside and protected from development. Partners may also agree to study, monitor, and develop management plans for these high value "reserve" areas. The NCCP provides an avenue for fostering economic growth by allowing approved development in areas with lower conservation values. An NCCP is included as a part of the CVMSHCP.

Sections 1600-1603 of the State Fish and Game Code

The California Fish and Game Code Sections 1600 through 1603 regulate all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or wildlife resources. Under state code, CDFW jurisdiction is assessed in the field based on one, or a combination, of the following criteria (CDFW 2005b):

- At minimum, intermittent and seasonal flow through a bed or channel with banks and that also supports fish or other aquatic life.
- A watercourse having a surface or subsurface flow regime that supports or that has supported riparian vegetation.
- Hydrogeomorphically distinct top-of-embankment to top-of-embankment limits.
- Outer ground cover and canopy extents of, typically, riparian associated vegetation species that would be sustained by surface and/or subsurface waters of the watercourse.

The CDFW requires that public and private interests apply for a "Streambed Alteration Agreement" for any project that may impact a streambed or wetland. The CDFW has maintained a "no net loss" policy regarding impacts to streams and waterways and requires replacement of lost habitats on at least a 1:1 ratio.

Section 2081 of the State Fish and Game Code

Under Section 2081 of the California Fish and Game Code, the CDFW authorizes individuals or public agencies to import, export, take, or possess state endangered, threatened, or candidate species in California through permits or memoranda of understanding. These acts, which are otherwise prohibited, may be authorized through permits or "memoranda of understanding" if (1) the take is incidental to otherwise lawful activities, (2) impacts of the take are minimized and fully mitigated, (3) the permit is consistent with regulations adopted in accordance with any recovery plan for the species in question, and (4) the applicant ensures suitable funding to implement the measures required by the CDFW. The CDFW must make this determination based on the best scientific information reasonably available and must include consideration of the species' capability to survive and reproduce.

Section 3505.5 of the State Fish and Game Code
Section 3505.5 makes it unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds-of-prey, i.e.: owls, hawks, eagles, etc.) or to take, possess, or destroy the nest or eggs of any bird-of-prey. Section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3513 makes it unlawful to take or possess any migratory nongame bird as designated in the MBTA.

Regional and Local

Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP)[1]
The Coachella Valley Multiple Species Habitat Conservation Plan and Natural Community Conservation Plan (CVMSHCP/NCCP) is a comprehensive regional plan encompassing a planning area of approximately 1.1 million acres and conserving approximately 240,000 acres of open space. The Plan addresses the conservation needs of a variety of plant and animal species and plant communities that occur in the Coachella Valley region.

The Plan was finalized in October 2008 and establishes a system of preserves outside of urbanized areas to protect lands with high conservation value. It streamlines development permit processing by providing the Plan's "Permittees" with long-term (75-year) incidental take permits under state and federal endangered species acts. Cathedral City is a signatory to and participates in the implementation of the CVMSHCP. As a Permittee under the CVMSHCP, the City must comply with all applicable terms and conditions of the CVMSHCP and Implementing Agreement (See Section 13.0 of the CVMSHCP Implementing Agreement).

Agua Caliente Tribal Habitat Conservation Plan[2]
The Agua Caliente Indian Reservation consists of approximately 31,500 acres generally in a checkerboard pattern in unincorporated Riverside County and the cities of Cathedral City, Palm Springs, and Rancho Mirage. The Tribe and municipalities cooperate on local and regional matters of mutual concern, including land use planning and the protection of open space and natural resources.

The Agua Caliente Tribal Habitat Conservation Plan (Tribal HCP) (2010) was established to protect and manage natural resources and habitat within the Tribe's jurisdictional territory, and to establish consistency and streamline permitting requirements with respect to protected species. The Tribal HCP covers approximately 36,055 acres, including Reservation lands and several off-reservation properties. Covered species include 19 sensitive wildlife species and 3 sensitive plant species that occur or have the potential to occur within the HCP planning area. Its primary conservation mechanisms include creation of a Habitat Preserve; adoption of avoidance, minimization, and mitigation measures to enhance the habitats and survivability of Covered species; and payment of a mitigation fee that funds Tribal acquisition and management of replacement habitat. The HCP establishes the Mountains and Canyons Conservation Area and the Valley Floor Conservation Area. It has not yet been approved by the USFWS.

General Plan Biological Resources Sub-Element
The proposed General Plan Biological Resources Element includes the following policies that pertain to biological resource management:

Policy 1 The City shall continue to participate in the preservation of habitat for endangered, threatened, and sensitive species.

Policy 2 As part of the development review process, projects shall be evaluated for the project's impacts on existing habitat and wildlife, and for the land's value as viable open space.

[1] Final Recirculated Coachella Valley Multiple Species Habitat Conservation Plan and Natural Community Conservation Plan, September 2007.
[2] Agua Caliente Band of Cahuilla Indians Tribal Habitat Conservation Plan, August 2010.

Policy 3 Encourage and cooperate with other agencies in establishing multiple use corridors that take advantage of drainage channels and utility easements as wildlife movement corridors, public access, and links between open space and the built environment.

Policy 4 Assure that sensitive habitat and wildlife areas, as well as state and federal lands, are appropriately buffered from the built environment.

Policy 5 Promote the protection of biodiversity and proactively encourage an appreciation for the natural environment and biological resources.

General Plan Open Space and Conservation Element

The following Open Space and Conservation Element also proposes policies that are relevant, either directly or indirectly, to biological resources occurring in and in proximity of the City. They include:

Policy 8: The City shall participate in the preservation of significant areas of natural desert, watercourse, and hillside habitat, including migration corridors and wildlife preserves, in order to maintain and enhance the preservation of sensitive biological resources.

Policy 11: Native landscaping materials and oasis-like design features shall be incorporated into parks, public rights-of-way, golf courses, and other open space lands, as appropriate, to enhance, retain and preserve the natural desert environment and enhance human and wildlife habitats.

Policy 13: Support and cooperate with the hillside and habitat conservation management programs of the Santa Rosa Mountains Conservancy.

2.5.4 Regional Environmental Setting

The Coachella Valley is in the Colorado subunit of the Sonoran Desert. The rocky slopes and mountain ranges bordering the valley isolate it from marine moisture to the west and contribute to the region's excessively hot and dry climate, creating a unique geomorphic and geographic setting that has shaped the evolution of a variety of plant and wildlife species. The resulting conditions provide an ecological environment that supports diverse and sometimes highly specialized species and natural communities.

The valley is bordered by the rocky, steep slopes of the San Bernardino and Little San Bernardino Mountains to the northwest and north; the San Jacinto Mountains to the west and southwest; and the Santa Rosa Mountains to the south. The mountains rise significantly over the low-lying valley floor. Channels and watercourses drain the mountains, creating deep channels that become shallower and less defined as they enter the valley floor. Over time, coarse rock has eroded and been transported downslope, forming alluvial plains of smoother, sandy deposits at the base of the mountains. Fan palm oases occur within canyons where natural water supplies flow through these woodland, and along geologic fault lines where high ground water levels support dense vegetation.

The valley floor extends from the San Gorgonio Pass on the west to the Salton Sea on the east, and slopes gently to the southeast. It is characterized by sparse vegetation and windblown (aeolian) sand deposits that, historically, have functioned as an active sand transport corridor but have been restricted due to urban development.

2.5.5 Existing Conditions

Much of the General Plan planning area south of I-10 is already developed with urban land uses that, over time, have resulted in the permanent loss of native habitats and plant and animal species, and disturbance of the natural aeolian (wind) or hydrological (water) processes needed to sustain them. Scattered vacant parcels are interspersed with development in this portion of the City, and several larger expanses of undeveloped land are immediately south

of I-10. Nearly all land north of I-10 is undeveloped, with the exception of a windfarm on the west slopes of Edom Hill, a few roads, above-ground water reservoirs, electric power lines, and limited new development in the vicinity of the Bob Hope Drive/US I-10 interchange.

Ecosystem Management

Sensitive and/or unique ecosystems in Cathedral City are managed according to the following plans.

CVMSHCP/NCCP

The City of Cathedral City is within the boundaries of the CVMSHCP/NCCP, and the City is a Permittee to the Plan. As such, non-tribal land within the City is subject to the provisions of the Plan (tribal land is subject to the Agua Caliente Tribal HCP, below). With few exceptions, new development projects are required to pay a Local Development Mitigation Fee to mitigate impacts to covered species and their habitat. Residential projects pay a per unit fee based on density, and commercial and industrial projects currently pay $5,730 per acre.[3]

The CVMSHCP establishes 21 Conservation Areas. Land within or adjacent to Conservation Areas is subject to special management activities to achieve conservation objectives and avoid or minimize the direct and indirect effects of urban development. Conservation Areas in Cathedral City include the Willow Hole Conservation Area and Edom Hill Conservation Area north of I-10, which contain suitable habitat for the following sensitive species: LeConte's Thrasher, Palm Springs Pocket Mouse, Coachella Giant Sand Treader Cricket, Coachella Valley Round-tailed Ground Squirrel, Coachella Valley Milkvetch, and Coachella Valley Fringe-toed Lizard.[4] The Whitewater Floodplain Conservation Area in the vicinity of I-10 and San Joaquin Drive (extended) contains suitable habitat for the same species.[5] The Santa Rosa and San Jacinto Mountains Conservation Area, in the mountains adjacent to the Cathedral City Cove, contains suitable habitat for the Peninsular bighorn sheep.[6] The boundaries of these Conservation Areas are shown on Exhibits 2.5-2 and 2.5-3.

Agua Caliente Tribal HCP

Within Cathedral City, the Agua Caliente Reservation generally covers alternating Sections of land in a checkerboard pattern. All Reservation land in the City is within the Valley Floor Planning Area (VFPA) and subject to payment of a mitigation fee; the current fee is $2,371 per disturbed acre.[7]

Willow Hole-Edom Hill Preserve

The Willow Hole Preserve consists of approximately 2,469 acres north of I-10 at the west end of the Indio Hills. Much of the Willow Hole-Edom Hill Preserve lies within the Cathedral City boundaries. It is designated as an Area of Critical Environmental Concern (ACEC) and is part of the larger Coachella Valley Preserve System jointly managed by the Bureau of Land Management (BLM), USFWS, CDFW, California Department of Parks and Recreation, and Center for Natural Lands Management. It consists of mesquite hummocks and a fan palm oasis and provides important blowsand habitat for various sand-dependent species, including the federally listed Coachella Valley fringe-toed lizard, Coachella Valley milkvetch, Palm Springs ground squirrel, and Palm Springs pocket mouse.

3 Estimated Development Fees (accessed January 2019), City of Cathedral City.
4 CVMSHCP Figures 4-13b and 4-15b.
5 CVMSHCP Figure 4-11b.
6 CVMSHCP Figure 4-26b.
7 Schedule of Standard Tribal Planning Fees (accessed January 2019), Agua Caliente Band of Cahuilla Indians.

Santa Rosa and San Jacinto Mountains National Monument

The Santa Rosa and San Jacinto Mountains National Monument was created in 2000. It encompasses approximately 272,000 acres within the Santa Rosa and San Jacinto Mountains along the southern portion of the Coachella Valley, and is adjacent to, but outside of, the southern boundary of Cathedral City. Lands are administered by the BLM, U.S. Forest Service (USFS), CDFW, California Department of Parks and Recreation, Agua Caliente Band of Cahuilla Indians, and Coachella Valley Mountains Conservancy, in cooperation with the county, adjacent cities, and property owners. Federal lands are managed according to the Santa Rosa and San Jacinto Mountains National Monument Management Plan.

Habitat Types and Natural Communities

The following general habitat types are found in Cathedral City.[8] Within these habitats are natural communities, defined as groups of plants and animals and their physical environment. Natural communities in the General Plan area, as determined by the CVMSHCP, are mapped on Exhibit 2.5-1.

Valley Floor

Valley floor habitat convers much of Cathedral City and the central Coachella Valley. It is characterized by low-lying, relatively flat terrain with sparse vegetation and sand deposits that originated from the erosion of adjacent hills and have been transported by strong winds. It can contain "active" sand dunes in which the continuous process of sand accumulation, depletion, and shifting occurs, uninterrupted by windbreaks or other impediments. Vegetation is largely limited to primrose *(Oenothera)*, desert dicoria *(Dicoria canescens)*, and sand verbena *(Abronia villosa)*. In Cathedral City, active sand transport systems are found in the Willow Hole-Edom Hill Preserve. Historically, they also occurred near the Whitewater River floodplain; however, urban development has restricted sand movement in this area, resulting in a loss of habitat. The valley floor can also contain "stabilized" and "partially stabilized" sand fields that lack the structure of sand dunes and contain more vegetation than active sand dunes, including creosote bush *(Larrea tridentate)*, sand verbena, and burrobush *(Oenothera deltoides)*. They are considered a Community of Highest Inventory Priority (CHIP) by the State. In Cathedral City, valley floor habitat has been largely fragmented, disturbed, and replaced by development.

Sandy Washes

Desert wash habitat includes watercourses and channels that drain the mountains surrounding the Coachella Valley. They typically contain viable, adequate sandy wash habitat that can support abundant bird populations and serve as travel corridors for wildlife. They often contain the Desert Dry Wash Woodland plant community, which is dominated by palo verde *(Cercidium floridum)* and smoke tree *(Psorothmnus spinosus)*. In Cathedral City, this habitat type occurs near the Whitewater River Wash, Morongo Wash, and Long Canyon Wash. Desert Dry Wash Woodland can also be found in East and West Cathedral Canyon Washes and at the Willow Hole-Edom Hill Preserve.

Alluvial Plain

Alluvial plain (or fan) habitat consists of coarse rock and sand that erodes from mountains and is transported and deposited as flood water descend from the mountains. Over time, the substrate is altered from rocky to sand deposits. Alluvial plains are typically dominated by the Sonoran mixed woody and succulent scrub plant community which is characterized by creosote bush, indigobush *(Dalea schottii)*, catclaw acacia *(Acacia greggii)*, smoketree, and palo verde. This plant community occurs in the lower slopes of the Santa Rosa Mountains and along the southern edge of the Coachella Valley. In Cathedral City, alluvial plain habitat occurs south of East Palm Canyon Drive and at the foothills of the Santa Rosa Mountains.

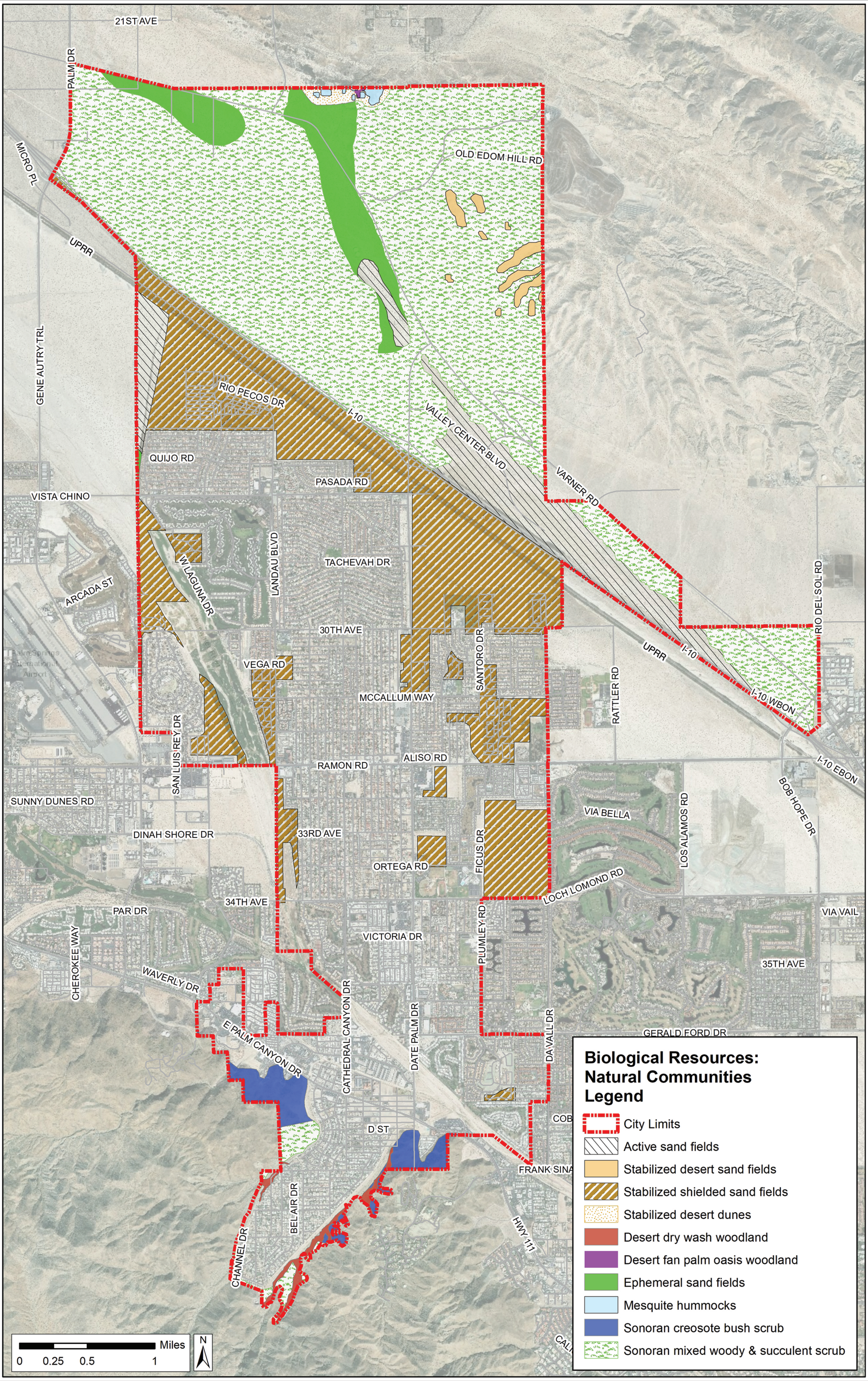
[8] "Biological Assessment for the Cathedral City General Plan Update," Terra Nova Planning and Research, Inc., 2001.

Desert Fan Palm Oasis Woodland

Desert Fan Palm Oases occur along geologic fault lines where ground water rises near the surface and supports dense vegetation. Desert Fan Palm Oasis Woodland is a sensitive plant community that is designated as a Community of the Highest Inventory Priority (CHIP) by the State. It is dominated by the California fan palm *(Washingtonia filifera)*, the largest palm in North America, as well as desert baccharis *(Baccharis sergiliodes)* and arrowweed *(Pleuchea sericea)*. This habitat provides cover, food, and water sources for migrating and wintering birds, the southern yellow bat, desert slender salamander, giant palm-boring beetle, and Peninsular bighorn sheep. In Cathedral City, a Desert Fan Palm Oasis is found in the Willow Hole-Edom Hill Preserve and within canyons of the Santa Rosa and San Jacinto Mountains.

Rocky Slopes

Rocky slopes habitat is characterized by steep slopes and weathered and fractured bedrock that may be displaced into loose debris of sand, pebbles, and stone. It supports numerous perennials and annual plant species, the density and size of which increases with elevation and associated increases in rainfall. Species include creosote bush, brittlebush *(Encelia farinosa)*, agave *(Agave deserti)*, Ocotillo *(Fouquieria splendens)*, pidmy cedar *(Peucephyllum schottii)*, and crossosoma *(Crossosoma bigelovii)*. Rocky slopes habitat connects with vast areas of mountainous wildlands and supports wide-ranging animals, including Peninsular bighorn sheep, mountain lion, bobcat, prairie falcon, and golden eagle. In Cathedral City, this habitat type extends from the edge of the alluvial plain at the southern end of the planning area into the Santa Rosa Mountains.



06.21.19

Source: CVMSHCP, 2008; Esri 2018

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PLANNING & RESEARCH, INC.

City of Cathedral City General Plan EIR
CVMSHCP Natural Communities Map
Cathedral City, California

Cathedral City

Exhibit
2.5-1

Special Status Species

The General Plan planning area includes a number of species designated as "endangered" or "threatened" by the federal and state governments (see Section 2.5.3 for definitions). "Sensitive" species are those that are naturally rare and have been locally depleted and put at risk by human activities. Endangered, threatened, and sensitive species occurring or potentially occurring in the General Plan planning area are identified in the following table. Exhibits 2.5-2 and 2.5-3 show the boundaries of modeled habitat for many of these species in the General Plan area, as determined by the CVMSHCP.

Table 2.5-1
Sensitive Communities and Species
Occurring or Potentially Occurring in the Cathedral City Study Area

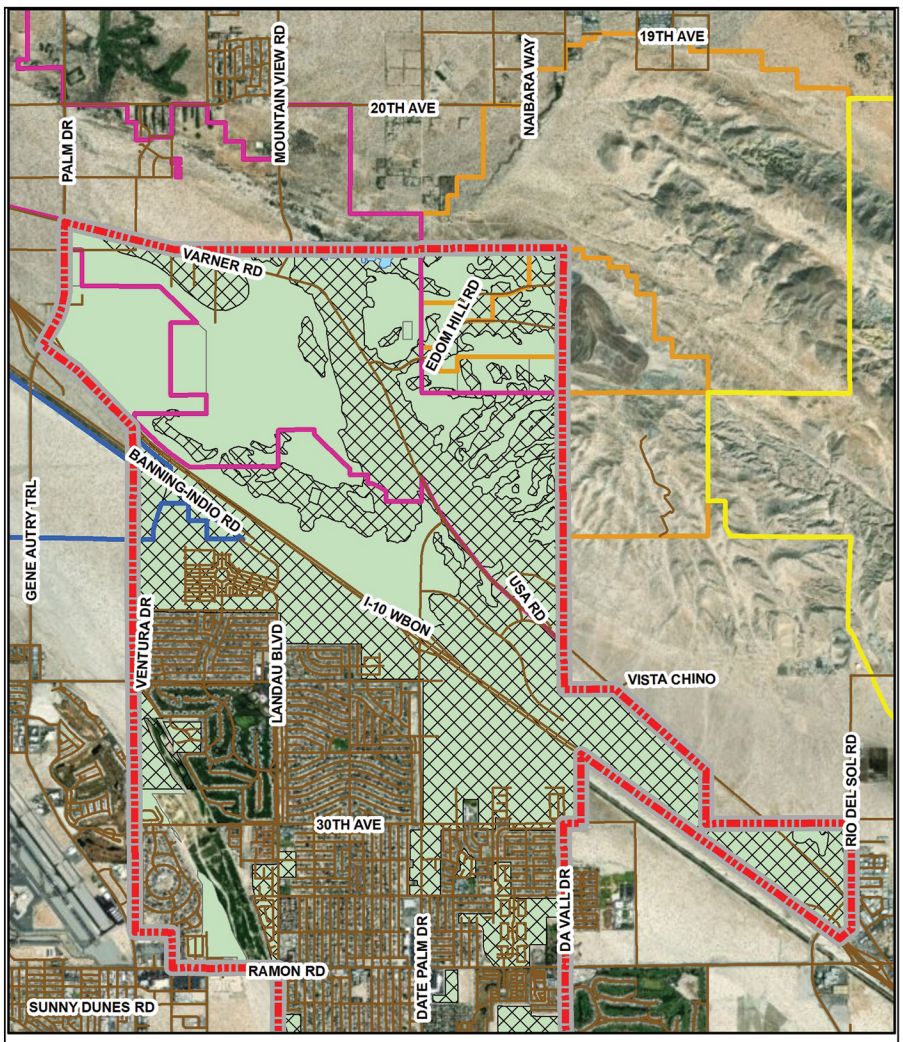
Species Name (Fed/State)	Scientific Name	Conservation Status
PLANT COMMUNITIES		
Desert Dry Wash Woodland	N/A	ND/CHIP
Sand Dunes and Fields	N/A	ND/CHIP
Desert Fan Palm Oasis Woodland	N/A	ND/CHIP
PLANTS		
California ditaxis	*(Ditaxis serrata)*	FSC/ND
Coachella Valley milkvetch	*(Astragalus lentiginosus var. coachellae)*	FE/ND
Flat-seeded spurge	*(Chamaesyce platysperma)*	FSC/ND
Payson's jewelflower	*(Caulanthus simulans)*	FSC/ND
INVERTEBRATES		
Coachella giant sand-treader cricket	*(Macrobaenetes valgum)*	FSC/ND
Coachella Valley Jerusalem cricket	*(Stenopelmatus cahuilaensis)*	FSC/ND
Coachella Valley grasshopper	*(Spaniacris deserticola)*	FSC/ND
Casey's June Beetle	*(Dinacoma caseyi)*	END/ND
AMPHIBIANS AND REPTILES		
Desert tortoise	*(Gopherus agassizi)*	FT/ST
Desert slender salamander	*(Batrachoseps aridus)*	FE/SE
Flat-tailed horned lizard	*(Phrynosoma mcallii)*	FTP/CSC
Coachella Valley fringe-toed lizard	*(Uma inornata)*	FE/SE
Common chuckwalla	*(Sauromalus obesus)*	FSC/ND
BIRDS		
Ferruginous hawk	*(Buteo regalis)*	FSC/CSC
Golden eagle	*(Aquilachrysaetos)*	ND/CSC
Merlin	*(Falco columbarius)*	ND/CSC
Prairie falcon	*(Falco mexicanus)*	ND/CSC
Peregrine falcon	*(Falco peregrinus)*	FE/SE
Burrowing owl	*(Athene cunicularia)*	FSC/CSC
Crissal thrasher	*(Toxostoma crissale)*	ND/CSC
LeConte's thrasher	*(Toxostoma lecontei)*	FSC/CSC
Southwestern yellow flycatcher	*(Empidonax trailii extimus)*	FPE/SE
Least Bell's vireo	*(Vireo bellii pusillus)*	FE/SE
Yellow warbler	*(Dendroica petechia brewsteri)*	ND/CSC

Yellow-breasted chat	*(Icteria virens)*	ND/CSC
Summer tanager	*(Piranga rubra)*	ND/CSC
Osprey	*(Pandion haliaetus)*	ND/CSC
Northern harrier	*(Circus cyaneus)*	ND/CSC
Sharp-shinned hawk	*(Accipiter striatus)*	ND/CSC
Cooper's hawk	*(Accipiter cooperii)*	ND/CSC
Long-eared owl	*(Asio otus)*	ND/CSC
Southwestern willow flycatcher	*(Empidonax traillii extimus)*	FPE/SE
Vermilion flycatcher	*(Pyrocephalys rubinus)*	ND/CSC
Bendire's thrasher	*(Toxostoma bendirei)*	ND/CSC
Loggerhead shrike	*(Lanius ludovicianus)*	ND/CSC
MAMMALS		
California leaf-nosed bat	*(Macrotis californicus)*	FSC/CSC
Spotted Bat	*(Euderma maculatum)*	FSC/CSC
California mastiff bat	*(Eumops perotis californicus)*	FSC/CSC
Yuma myotis	*(Myotis yumanensis)*	FSC/CSC
Western small-footed myotis	*(Myotis ciliolabrum)*	FSC/ND
Pale big-eared bat	*(Plecotus townsendii pallescens)*	FSC/CSC
Pallid bat	*(Antrozous pallidus)*	ND/CSC
Pocketed free-tail bat	*(Tadarida femorosacca)*	ND/CSC
Palm Springs ground squirrel	*(Spermophilus tereticaudus)*	FSC/CSC
Palm Springs little pocket mouse	*(Perognathus longimembris ssp. bangsi)*	FSC/CSC
Southern grasshopper mouse	*(Onychomys torridus ssp. ramona)*	FSC/ND
American badger	*(Taxidea taxus)*	ND/CSC
Peninsular bighorn sheep	*(Ovis canadensis cremnobates)*	FE/ST

Source: Coachella Valley Multiple Species Habitat Conservation Plan and Natural Community Conservation Plan, 2007; Biological Resources Assessment for the Cathedral City General Plan Update, prepared by Terra Nova Planning and Research, Inc. 2001; "Determination of Endangered Status for Casey's June Beetle and Designation of Critical Habitat," Federal Register Vol. 76, No. 184, September 22, 2011.

Federal Status Designations: (Federal Endangered Species Act, US Fish and Wildlife Service):
FE: Federally listed as "Endangered"
FT: Federally listed as "Threatened"
FPE: Federally proposed as "Endangered"
FSC: Federal Species of Concern
FC: Candidate for Federal Listing
ND: Not designated

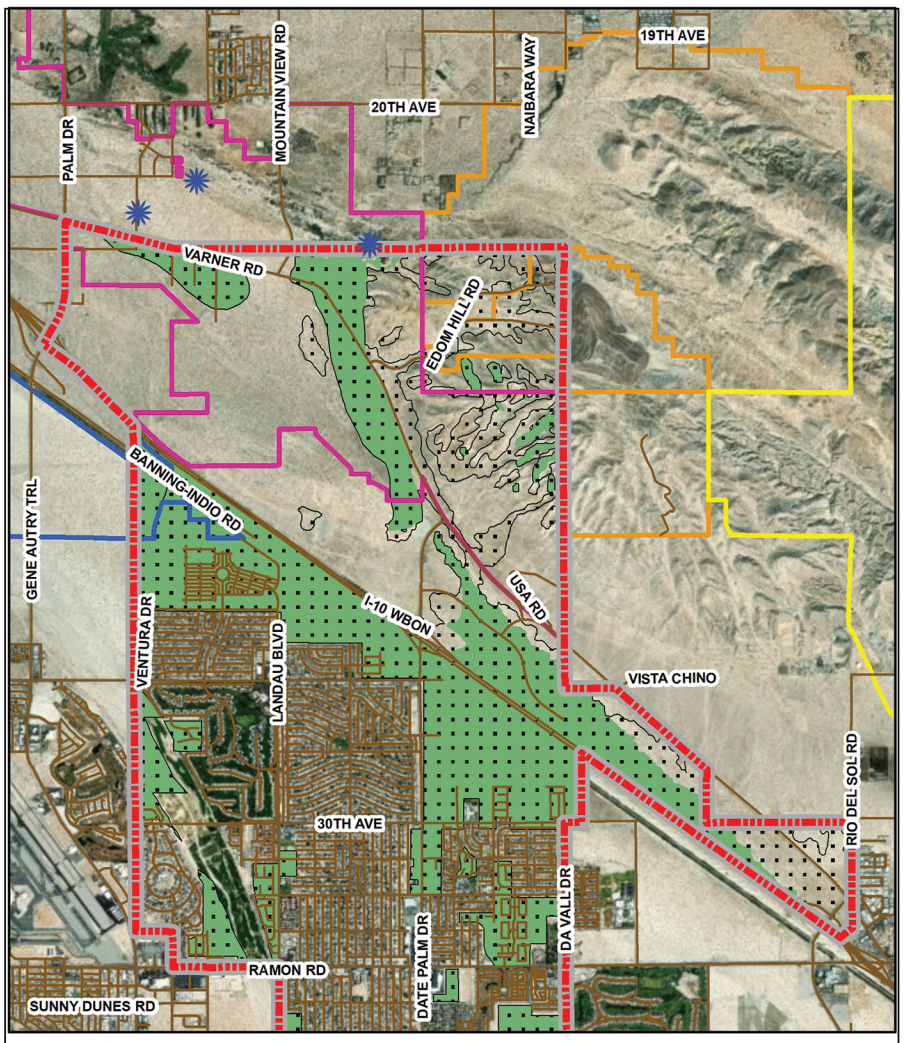
State Status Designations: (California Endangered Species Act, California Department of Fish and Wildlife):
SE: State listed as "Endangered"
ST: Stage listed as "Threatened"
CSC: California Species of Special Concern
ND: Species not designated



Least Bell's Vireo, Summer Tanager, Yellow-breasted Chat, Yellow Warbler, & Crissal Thrasher

Coachella Valley Milkvetch

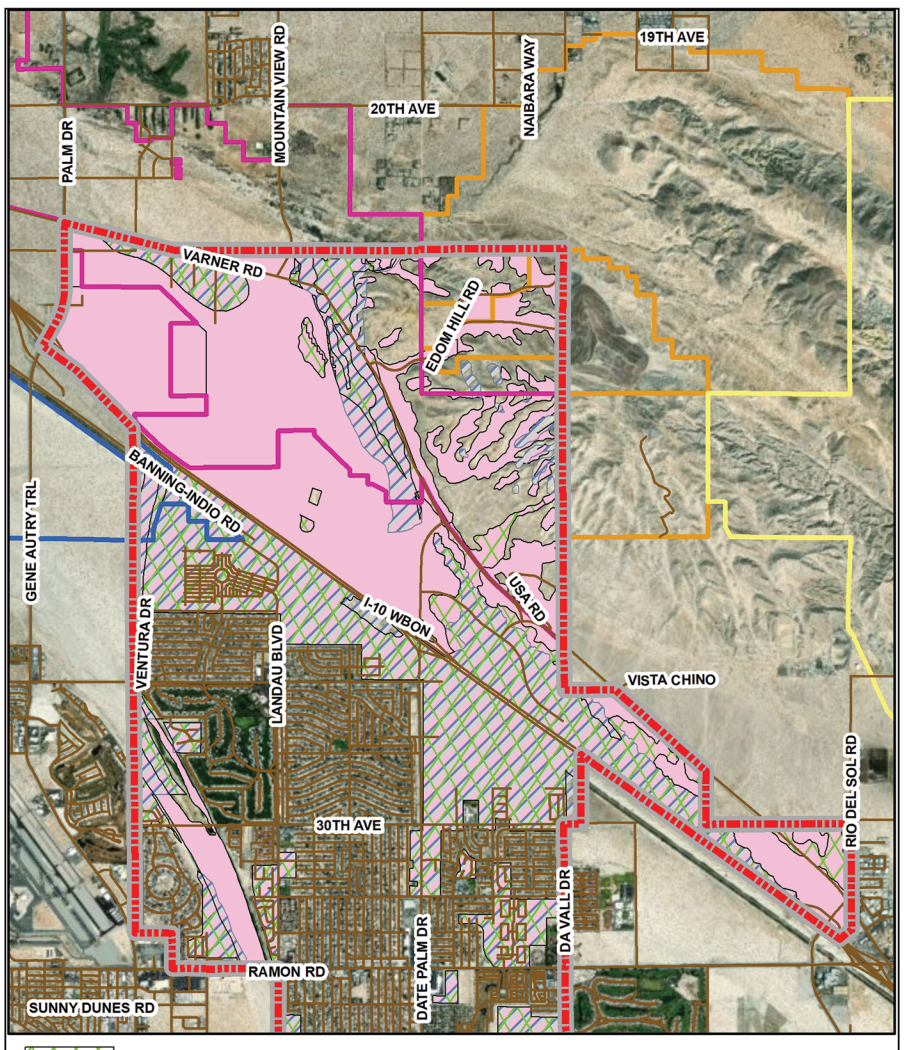
Le Conte's Thrasher



Coachella Valley Jerusalem Cricket

Coachella Giant Sand Treader Cricket

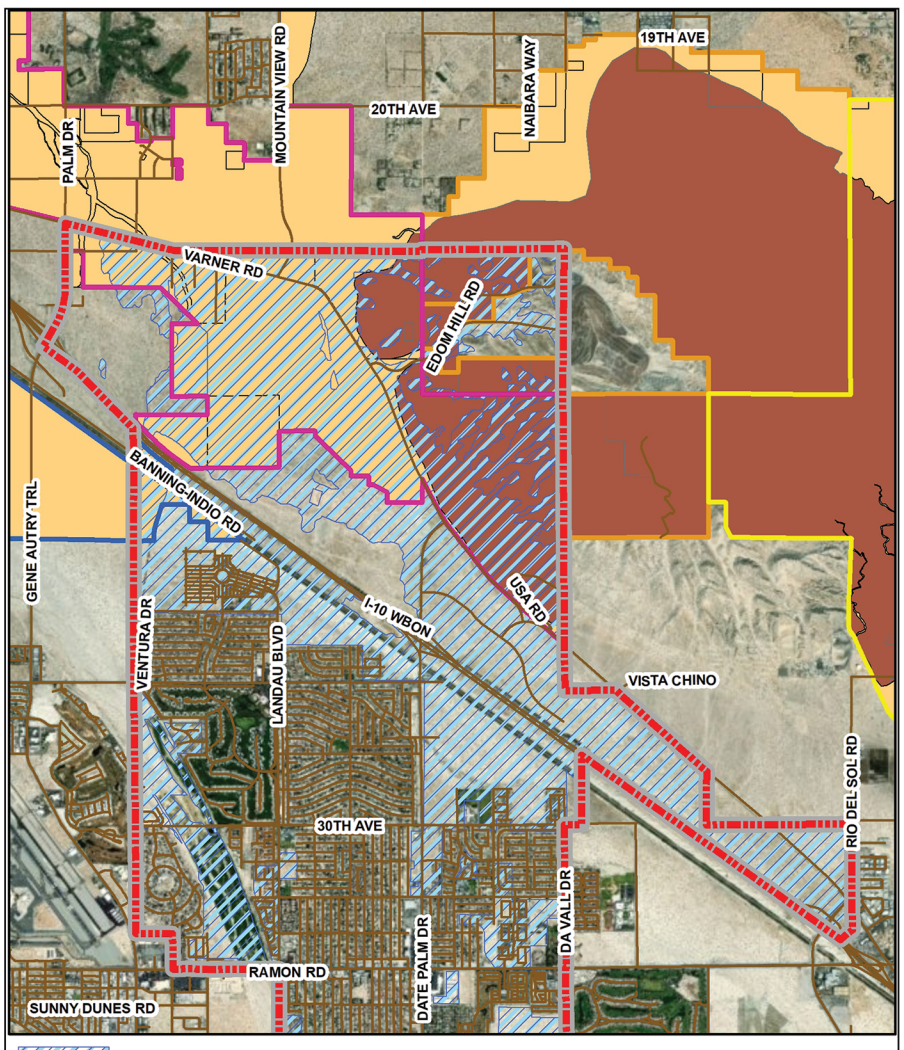
Burrowing Owl Locations



Flat-tailed Horned Lizard

Fringe-toed Lizard

Palm Springs Pocket Mouse



Palm Springs Ground Squirrel

Sand Source

Sand Transport

CVMSHCP Conservation Areas & Modeled Habitat Legend

- City Limits
- Edom Hill CA
- Thousand Palms CA
- Whitewater Floodplain CA
- Willow Hole CA

Miles

0 0.75 1.5 3

N

Source: CVMSHCP, 2008; Esri 2018

06.21.19

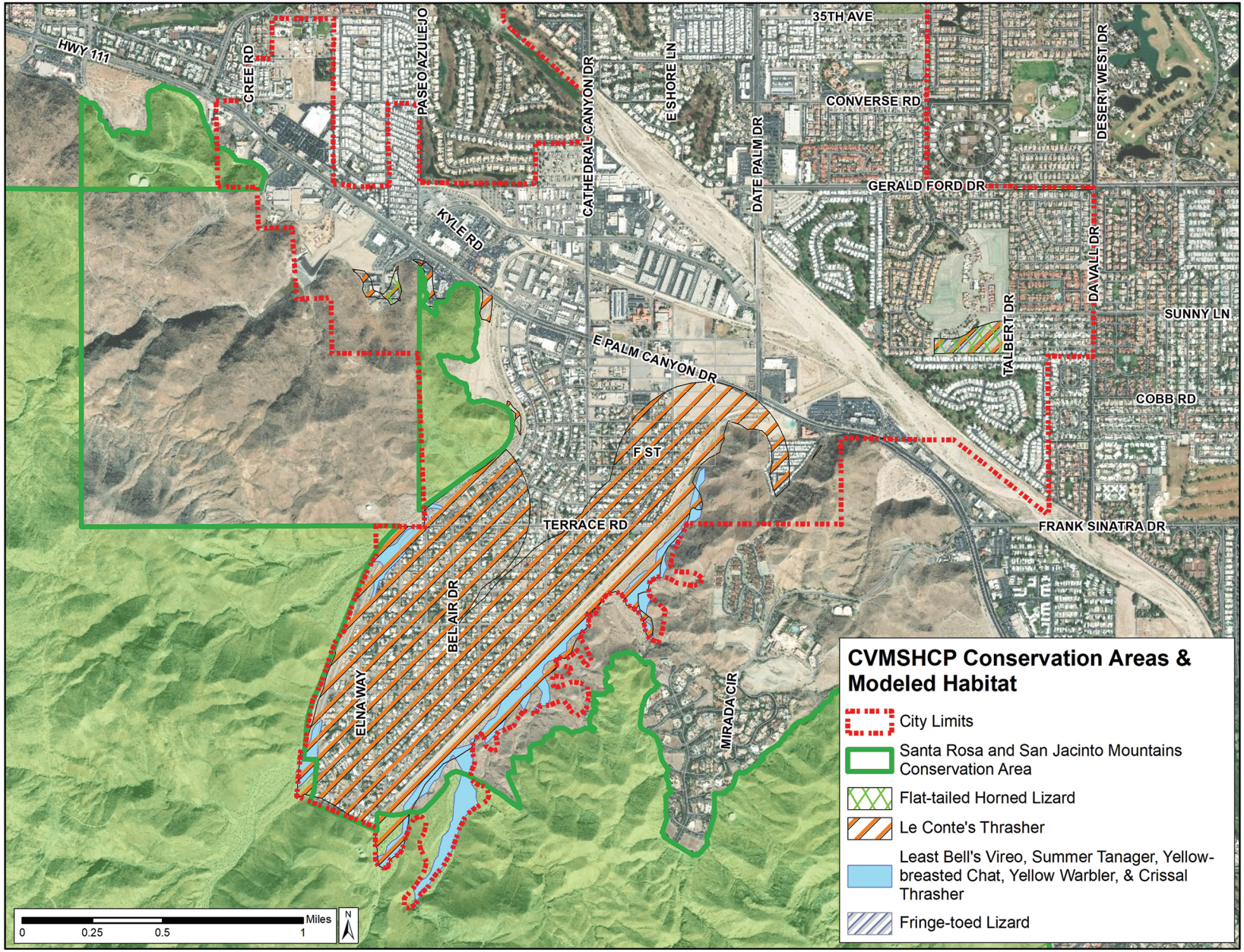
TERRA NOVA®
PLANNING & RESEARCH, INC.

City of Cathedral City General Plan EIR
CVMSHCP Biological Resources Map North
Cathedral City, California

Cathedral City

Exhibit

2.5-2



06.21.19 Source: CVMSHCP 2008; Esri, 2018

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PLANNING & RESEARCH, INC.

City of Cathedral City General Plan EIR
CVMSHCP Biological Resources Map South
Cathedral City, California

Cathedral City

Exhibit
2.5-3

2.5.6 Project Impacts

Will the proposed Project:

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

As shown in Table 2.5-1, the General Plan planning area contains or potentially contains (due to the presence of favorable habitat conditions) numerous sensitive species, including some designated as endangered or threatened by the USFWS and CDFW. Some have been identified for conservation or protection in the CVMSHCP and Agua Caliente Tribal HCP, and some are subject to land management policies and plans of the BLM and other regulatory agencies.

Most land south of I-10 is developed and not known to support substantial populations of sensitive species. Where development has occurred, native soils, vegetation, habitat, and animals have been removed, displaced and/or highly fragmented. Natural aeolian (wind) and hydrologic (fluvial) processes that these habitats rely on have been interrupted. Development, including I-10, UPRR lines and tamarisk windrows, have reduced or entirely cut off habitat connections and migration corridors, and limited the potential to sustain substantial populations over the long-term. The value of remaining habitat has been further diminished by the edge effects of development, such as trash dumping, off-highway vehicle use, and the presence of domestic pets. Nonetheless, some land south of I-10 may still harbor individuals or limited populations of sensitive species and sand field habitat.

Land north of I-10 remains largely undeveloped. As noted above, major portions of this area remain in conservation as designated by the US BLM ACEC and in CVMSHCP Conservation Areas. These conserved or to-be-conserved areas have been identified as containing special-status species and/or unique habitat conditions that support them and are managed through local or regional plans, policies, or regulations.

The proposed General Plan Update would facilitate future urban development that could disturb or permanently remove sensitive species and/or their habitats. Lands within designated conservation areas would continue to be protected under the Proposed Project. Impacts would be reduced or mitigated to less than significant levels through a variety of mechanisms. First, the Biological Resources Sub-Element of the General Plan Update includes several policies and programs that would preclude or reduce impacts to sensitive species. Policy 1 requires the City to continue to participate in the preservation of habitat for endangered, threatened, and sensitive species. Program 1.A requires the City to work with the Coachella Valley Conservation Commission (CVCC) to maintain updated maps of sensitive plant and animal species and habitats. Program 1.B requires the City to continue to implement and abide by the CVMSHCP, and Program 1.E requires the City to help assure development on tribal land conforms to the provisions of the Tribal HCP. Per Program 1.C, the City will continue to require biological resource surveys for new development, where required, in compliance with applicable state and federal requirements. Program 1.F identifies specific requirements for protecting Casey's June Beetle from potential adverse impacts. Program 1.D requires consideration of impacts to windblown sand transport when development is proposed in the vicinity of the Willow Hole Conservation Area and Willow Hole-Edom Hill Preserve, as they could adversely affect sand-dependent sensitive species.

Additionally, the proposed General Plan Update land use plan preserves most sensitive habitat and wildlife areas as Open Space or low-intensity land uses. The CVMSHCP Willow Hole Conservation Area is mostly designated Open Space-Public Park, with smaller pockets designated for Hillside Reserve (1 dwelling unit per 20 acres) and Estate Residential (0-2 dwelling units per acre). The northern portion of the CVMSHCP Edom Hill Conservation Area is

designated Open Space-Public/Park, and the southern portion is designated Hillside Reserve, which ensures that any further development on these lands will be very limited and that impacts to this habitat will be less than significant. Most of the CVMSHCP Whitewater River Floodplain Conservation Area is designated Open Space-Other with limited Industrial acreage near the railroad and outside the Conservation Area.

Finally, future development projects facilitated under the proposed General Plan would be evaluated on a project-by-project basis for potential adverse impacts to sensitive species and required to implement mitigation measures, as needed. Impacts to Covered species would also be mitigated through the payment of HCP mitigation fees (Mitigation Measures BIO-1 and BIO-2). Land use adjacency guidelines would be implemented for projects within or adjacent to CVMSHCP Conservation Areas (Mitigation Measure BIO-1). Focused species surveys would be required in compliance with applicable state and federal requirements, as described below and in Mitigation Measures BIO-3 through BIO-6.

- *Burrowing owl:* is a covered species under the CVMSHCP, but neither the federal Clean Water Act nor the state NCCP for the CVMSHCP provides take of this species, which is subject to the MBTA. The species nests and roosts underground, including along canals and flood control levees and channels, and is particularly vulnerable to ground disturbing activities. Protocols have been developed for burrowing owl surveys prior to ground disturbance (Mitigation Measure BIO-3).

- *Bird Species for which MBTA Take is not Permitted:* The following bird species are Covered species under the CVMSHCP but, like the burrowing owl, the federal permit for the CVMSHCP does not allow their take under the MBTA: crissal thrasher, Le Conte's thrasher, yellow warbler, yellow-breasted chat, and summer tanager. Nesting habitat for these species may be available in the City, and future development facilitated by the General Plan could remove it. Nesting bird surveys for compliance with the MBTA will prevent take of MBTA-protected species (Mitigation Measure BIO-4).

- *Other Special-Status Bird Species Not Included in the CVMSHCP:* The Cooper's hawk, vermilion flycatcher, and loggerhead shrike are special-status species which may nest in the City. They are protected from take by the MBTA. Nesting bird surveys for compliance with the MBTA will prevent impacts to these species (Mitigation Measure BIO-4).

- *Bats:* Focused surveys may be required to ensure that bats are not present so that they are not harmed or disturbed by construction activities. Some potential roost sites detected in the General Plan planning area include areas under bridges and structures associated with I-10, UPRR, and the Whitewater River Stormwater Channel (Mitigation Measure BIO-5).

- *Casey's June Beetle (CJB)*: was listed by the USFWS as an endangered species after adoption of the CVMSHCP. As such, it is not a Covered Species under the CVMSHCP but is protected under the federal ESA. Development proposed in CJB survey areas (established by the USFWS) would be required to conduct site assessments and focused species surveys in accordance with USFWS protocols (Mitigation Measure BIO-6).

In summary, impacts to sensitive species would be mitigated to less than significant levels through policies and programs of the proposed General Plan Biological Resources Sub-Element, General Plan land use plan, and Mitigation Measures BIO-1 through BIO-6 that would apply to future development in the planning area.

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

Riparian areas occur at the transition between dry and wet environments. In the General Plan planning area, riparian habitat is generally found along major drainages, such as the Whitewater River Stormwater Channel and East and West Cathedral Canyon Channels. Sensitive natural communities in the planning area, as determined by CDFW, include the California fan palm oasis at the Willow Hole-Edom Hill Area of Critical Environmental Concern (ACEC).[9]

The General Plan Update would not impact the California fan palm oasis at Willow Hole. The proposed land use plan designates the area as Open Space, and the General Plan would not alter or otherwise affect its conservation management policies or protections.

The proposed General Plan Update would have no or a limited potential impact on riparian habitat located in the planning area, and development opportunities near riparian habitat in the planning area are limited. Along the East and West Cathedral Canyon Channels, land on the Cove side of the channels is already developed, and land on the mountain side of the channels is designated as Open Space. Along the Whitewater River, the channel itself is designated as Open Space, and most adjacent parcels are already developed. Nonetheless, the possibility exists for additional development to occur in the vicinity of riparian habitat. Impacts would be minimized by implementation of General Plan Biological Resources Sub-Element Policy 2, which requires the City to evaluate development projects for their impacts on existing habitat and wildlife, and for the land's value as viable open space. The City may require site-specific biological assessments to evaluate potential impacts to riparian habitat and the need for mitigation measures. Project-specific impacts would be less than significant with implementation of Mitigation Measures BIO-7 through BIO-10.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

The City is located in an arid desert environment with annual average rainfall of about 4 inches. It is approximately 80 miles inland and contains no coastal lands.

Wetlands are defined at 33 CFR 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." Wetlands and other special aquatic sites possess special ecological characteristics of productivity, habitat, wildlife protection, or other important and easily disrupted ecological values.

The USFWS National Wetlands Inventory mapping database identifies all surface water and wetlands as a single feature on a map.[10] The maps are prepared from high altitude imagery based on visible vegetation, hydrology and geography, and the USFWS has determined that on-the-ground site inspection may result in classification revisions. In Cathedral City, the inventory identifies the Whitewater River Stormwater Channel, East Cathedral Canyon Channel, and drainage from East Wide Canyon (north of I-10) as part of "riverine" systems that include "wetlands and deepwater habitats contained within a channel that periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water." In Cathedral City, these drainages can contain and convey stormwater during rain events, but they are typically dry with little to no standing water.

No designated wetlands have been identified in the planning area. Nonetheless, Policy 10 of the General Plan Water Resources Sub-Element requires new development to protect the quality of water bodies and natural drainage systems through sound design, source controls, storm water treatment, runoff reduction measures, and best management practices. As warranted based on location, proximity to potential wetlands, and other project-specific

9 California Sensitive Natural Communities listing, California Department of Fish and Wildlife, October 15, 2018.
10 USFWS National Wetlands Inventory, www.fws.gov/wetlands/Data/Mapper.html , accessed January 2019.

characteristics, the City may require assessments of hydrologic, soils and habitat conditions to determine whether and to what extent future development projects will impact wetlands, as well as the need for mitigation (see Mitigation Measures BIO-7 through BIO-10). Implementation of these measures will reduce potential impacts of future development on wetlands to less than significant levels.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The City contains no natural aquatic resources that could support fish; therefore, the General Plan Update will have no impact on the movement of fish species.

Most parcels on the valley floor in the General Plan area are developed and surrounded by elements of the built environment, including buildings, roads, walls and fences, and utility infrastructure. Any wildlife migratory corridors that may have existed have been largely removed or interrupted by urban development. The habitat value of scattered undeveloped parcels may have been diminished by the edge effects of surrounding development, such as trash dumping, off-highway vehicle use, and the presence of domestic pets. They are not known to serve as notable wildlife nursery sites but could serve as nesting sites for birds. Future development facilitated by the General Plan Update could impact nesting birds if construction occurs during nesting seasons; however, implementation of MBTA surveys (Mitigation Measure BIO-4) would reduce potential impacts to less than significant levels.

According to the CVMSHCP, important wildlife corridors or linkages in Cathedral City include: 1) land between I-10 and the railroad near the western City limits in the Whitewater River Floodplain Conservation Area,[11] 2) land north of I-10 near the western City limits in the Willow Hole Conservation Area,[12] and 3) all of the Edom Hill Conservation Area.[13] The proposed General Plan Update designates much of this land as Open Space, but designates some of it for low-intensity development, including Hillside Reserve (1 dwelling unit per 20 acres) and Estate Residential (0-2 dwelling units per acre). Development could result in the construction of barriers to wildlife movement, such as fences, walls, buildings, and roads. Development within and adjacent to Conservation Areas is subject to land use adjacency guidelines, which could also reduce potential impacts. Development on these lands is also generally constrained by steep and unstable slope, as described in Section 2.8.

The General Plan Biological Resources Sub-Element includes Policy 3 and Program 3.A by which the City would encourage and cooperate with other agencies in establishing multiple-use corridors that take advantage of drainage channels and utility easements as wildlife movement corridors, public access ways, and linkages between open space areas and the built environment. Implementation of these measures would reduce potential impacts to less than significant levels.

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

The City does not have a tree preservation or similar ordinance that protects trees in general or particular biological resource. However, the City is a Permittee to the CVMSHCP/NCCP and it cooperates with the Agua Caliente Band of Cahuilla Indians to assure development projects on tribal lands in the City abide by the provisions of the Tribal HCP.

11 CVMSHCP Figure 4-11d.
12 CVMSHCP Figure 4-13d.
13 CVMSHCP Figure 4-15d.

The Biological Resources Sub-Element of the General Plan Update includes Programs 1.B, 1.D, 1.E, and 4.A that support the City's continued participation in implementation of the above-referenced HCPs. Future development facilitated by the General Plan would be required to mitigate impacts to Covered Species through the payment of local development mitigation fees (Mitigation Measures BIO-1 and BIO-2). Development within or adjacent to a CVMSHCP Conservation area would be subject to land use adjacency guidelines (BIO-1). The General Plan Update will continue to implement all the above-mentioned plans and policies and, therefore, impacts would be less than significant.

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

As previously discussed, the City is a Permittee to the CVMSHCP/NCCP and cooperates with the Agua Caliente Band of Cahuilla Indians to implement the Tribal HCP on tribal lands within City boundaries. The proposed General Plan Update includes Programs 1.B, 1.D, 1.E, and 4.A that provide for the City's continued participation in both HCPs, including requiring future development projects to pay local development mitigation fees and protection of CVMSHCP Conservation Areas through implementation of land use adjacency guidelines (Mitigation Measures BIO-1 and BIO-2). The General Plan would not conflict with the provisions of either plan; no impact would occur.

2.5.7 Mitigation Measures

As discussed throughout the proposed general Plan and this EIR, a wide range of avoidance, minimization and mitigating policies and programs are established by the Proposed Project. The following mitigation measures reiterate these policies and programs and would apply, as appropriate, to specific development projects in the General Plan planning area.

BIO-1 Mitigation Related to the CVMSHCP
To the extent applicable, the City shall comply with all terms and conditions of the CVMSHCP and Implementing Agreement including, but not limited to: implementation of the "Land Use Adjacency Guidelines" as described in Section 4.5 of the CVMSHCP and collection of approved CVMSHCP land development mitigation fees.

BIO-2 Mitigation Related to the Tribal HCP
The City shall cooperate and coordinate with the Agua Caliente Band of Cahuilla Indians to help assure the development on tribal lands in the planning area conforms to the provisions of the Tribal Habitat Conservation Plan.

BIO-3 Mitigation Related to Burrowing Owl
For projects that contain suitable habitat for Burrowing Owl, a "take avoidance survey" for the burrowing owl no less than 14 days (in accordance with the Staff Report on Burrowing Owl Mitigation [CDFW 2012]) and no more than 30 days prior to groundbreaking activities shall be required. Additionally, a final survey must be conducted within 24 hours of the initiation of ground disturbance activities in accordance with the CDFW 2012 protocol.

a. If no burrowing owls are detected during those surveys, implementation of ground disturbance activities could proceed without further consideration of this species assuming there is no lapse between the surveys and construction as the protocol states "time lapses between Project activities trigger subsequent take avoidance surveys including but not limited to a final survey conducted within 24 hours prior to ground disturbance."

b. If burrowing owls are detected during the take avoidance surveys, avoidance and minimization measures would then be required and could include the establishment of a buffer zone, the passive or active relocation of the individual(s) or other measures approved by the CDFW.

BIO-4 Mitigation Related to MBTA
If ground disturbance, tree or plant removal is proposed between February 1st and August 31st, a qualified biologist shall conduct a nesting bird survey within 7 to 10 days of initiation of grading onsite focusing on MBTA covered species. If active nests are reported, then species-specific measures shall be prepared. At a minimum, grading in the vicinity of a nest shall be postponed until the young birds have fledged. For construction between September 1st and January 31th, no pre-removal nesting bird survey is required.

a. In the event active nests are found, exclusionary fencing shall be placed 200 feet around the nest until such time as nestlings have fledged. Nests of raptors and burrowing owls shall be provided a 500-foot buffer. Ground disturbance between September 1 and January 31 shall be exempt from this requirement.

BIO-5 Mitigation Related to Bats. Focused surveys shall be conducted to ensure that bats are not present to avoid or minimize harm or disturbance by construction activities. Potential roost sites include, but may not be limited to, bridges associated with I-10, UPRR, and the Whitewater River Stormwater Channel, and any other structures in the project area that could provide roosts for bats.

BIO-6 Mitigation Related to Casey's June Beetle. Projects in the USFWS-designated CJB survey area shall be required to conduct pre-construction site assessments and species surveys in accordance with USFWS protocols and requirements. Should the species be detected onsite, an appropriate mitigation program shall be developed in cooperation with the project proponent, USFWS, and other appropriate parties.

Mitigation Related to Jurisdictional Waters and Wetlands
As warranted, proposed development projects shall be evaluated for their potential to impact waters to the United States and State of California and shall be required to meet all project mitigation requirements.

BIO-7 Prior to the initiation of any construction within areas determined by a Jurisdictional Delineation to be waters of the US, a permit or permits shall be approved and issued by the USACE under Section 404 of the CWA to authorize the discharge of dredged or fill material into waters of the US.

BIO-8 Prior to the initiation of any construction within areas determined by a Jurisdictional Delineation to be waters of the US or the State, a Water Quality Certification shall be approved and issued by the Colorado River RWQCB (Region 7) under Section 401 of the CWA.

BIO-9 Prior to the initiation of any construction within areas determined by a Jurisdictional Delineation to be waters of the State, a permit or permits shall be approved and issued by the Colorado River RWQCB (Region 7) under the Porter Cologne Water Quality Control Act.

BIO-10 Prior to the initiation of any construction within areas determined by a Jurisdictional Delineation to be waters of the State, a 1602 Streambed Alteration Agreement shall be approved and issued by the California Department of Fish and Wildlife.

With the implementation of the mitigation measures set forth above, potential impacts will be mitigated to less than significant levels.

2.5.8 Significance After Mitigation

With adherence to the policies and programs set forth in the proposed General Plan, and mitigation measures set forth above, impacts to biological resources would be reduced to less than significant levels.

2.5.9 Cumulative Impacts

The proposed General Plan update will facilitate new development in Cathedral City and contribute to urbanization trends occurring throughout the Coachella Valley, including the conversion of vacant land to development and permanent removal or alteration of native plants and habitat. However, the General Plan land use map preserves sensitive habitat and biological resources as open space and, where feasible, designates adjacent land for conservation or low-intensity land uses to minimize impacts to sensitive species. It includes numerous policies and programs requiring the City's continued participation in efforts to protect sensitive biological resources on a regional level and in conjunction with tribal authorities, neighboring jurisdictions, regional entities, and wildlife resource agencies. The City would continue to require project-specific biological evaluations and mitigation measures, where necessary, for individual projects to minimize impacts at the local level. Therefore, the impacts of the General Plan on biological resources would not be cumulatively considerable.

2.6 Cultural and Tribal Cultural Resources

2.6.1 Introduction

This section evaluates the potential for the Proposed Project to result in adverse impacts to cultural resources. Cultural resources include Native American tribal cultural resources, archaeological resources, historic resources, and human remains. Mitigation measures to reduce impacts to a less than significant level are identified, where appropriate.

2.6.2 Thresholds of Significance

The California Environmental Quality Act (CEQA) prescribes how the Lead Agency must address issues related to archaeological, historic, and tribal cultural resources. The State CEQA Guidelines state that the term "historical resources" applies to any such resources listed in or determined to be eligible for listing in the California Register of Historical Resources. The definition also includes resources listed in a local register of historical resources or identified as significant in an historical resource survey meeting the requirements of section 5024.1(g) of the Public Resources Code. According to Public Resources Code Section 5020.1, "historical resources" include, but are not limited to, an object, building site, area, place, record, or manuscript that is historically or archaeologically significant.

Cultural Resources

According to Appendix G of the CEQA Guidelines, the Project would have a significant effect on cultural resources if it would:

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

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

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

Tribal Cultural Resources

According to recent Appendix G of the CEQA Guidelines, the Project would have a significant effect on tribal cultural resources if it would:

a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

   i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

   ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

2.6.3 Regulatory Framework

Federal

National Historic Preservation Act

The National Historic Preservation Act (NHPA) was established in 1966 by the Advisory Council on Historic Preservation (ACHP) with the goal of encouraging federal agencies to factor historic preservation into federal project requirements. ACHP is an independent federal agency that promotes the preservation, enhancement, and productive use of the nation's historic resources, and advises government leaders on national historic preservation policy. The ACHP defines "historic properties" as "any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places."

Section 106 of the NHPA applies when two thresholds are met: 1) there is a federal or federally licensed action, including grants, licenses, and permits, and 2) that action has the potential to affect properties listed in or eligible for listing in the National Register of Historic Places. Section 106 requires each federal agency to identify and assess the effects of its actions on historic resources. If it is determined that a proposed action has the potential to affect historic properties, the federal agency must identify the appropriate State Historic Preservation Officer/Tribal Historic Preservation Officer (SHPO/THPO) to consult with during the process.

The federal agency reviews background information, consults with the SHPO/THPO and others, seeks information from knowledgeable parties, and conducts additional studies as necessary. If the federal agency finds that no historic properties are present or affected, it provides documentation to the SHPO/THPO, who has 30 days to provide written comment or objection. If there is no objection, the agency proceeds with its undertaking. If the agency finds that historic properties are present, it proceeds to assess possible adverse effects.

National Register of Historic Places

Authorized under the NHPA, the National Register of Historic Places is the nation's official list of cultural resources that qualify for preservation. Properties listed in the Register include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archaeology, engineering, and culture. The following criteria are used to determine eligibility for inclusion in the National Register. These criteria have been developed by the National Park Service as provided for in the NHPA:

a) Are associated with events that have made a significant contribution to the broad patterns of our history;
b) Are associated with the lives of persons significant in our past;
c) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
d) That yielded, or may be likely to yield, information important in prehistory or history (36 CFR 60.4).

In addition to the criteria for evaluation above, the National Register maintains a list of property types or circumstances that generally do not qualify for the National Register. These are: cemeteries, birthplaces or graves of historical figures; properties owned by religious institutions or used for religious purposes; structures that have been moved from their original locations; reconstructed historic buildings; properties primarily commemorative in nature; and properties that have achieved significance within the past 50 years.

State

California Public Resources Code

The California Environmental Quality Act (CEQA) is the principal statute governing the environmental review of projects within the State. The State of California's Public Resources Code (PRC) establishes the definitions and criteria for "historical resources," which require similar protection to what the NHPA mandates for historic

properties. According to PRC Section 5020.1(j), a "historical resource includes, but is not limited to, any object, building, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California."

If a lead agency determines that an archaeological site is a historical resource, the provisions of PRC Section 21084.1 and CEQA Guidelines Section 15064.5 apply. If an archaeological site does not meet the CEQA Guidelines criteria for a historical resource, then the site may meet the threshold of PRC Section 21083 regarding unique archaeological resources.

In addition, PRC Section 5097.98 states that if Native American human remains are identified within a project area, the landowner must notify and consult with the Native American Most Likely Descendant (MLD), as identified by the Native American Heritage Commission (NAHC), to develop a plan for proper treatment and/or removal of the human remains and associated burial artifacts. These procedures are also addressed in Section 15046.5 of the CEQA Guidelines and within the California Health and Safety Code (see discussion below).

Senate Bill 18

Senate Bill (SB) 18 (2004) requires cities and counties to contact and consult with California Native American tribes before adopting or amending a General Plan or Specific Plan or designating land as Open Space, for the purpose of protecting Native American cultural places. Notice must be given to tribes that are on the contact list maintained by the NAHC. Once contacted, tribes have 90 days to request consultation, and the city or county in which the cultural place is located must conduct consultations with any tribe that has given notice. The local government also notices the tribe 45 days prior to taking action on, and 10 days prior to a public hearing on, the General Plan adoption or amendment. The purpose of SB 18 is to establish meaningful consultation between tribal governments and local governments early in the planning process to avoid potential conflicts.

Cultural places are defined as "places, features, and objects described in Sections 5097.9 and 5097.995 of the Public Resources Code." Section 5097.9 defines cultural places as Native American sanctified cemeteries, places of worship, religious or ceremonial sites, or sacred shrines. Section 5097.995 defines them as Native American historic, cultural, or sacred sites that are listed or may be eligible for listing in the California Register of Historic Resources pursuant to Section 5024.1, including any historic or prehistoric ruins, any burial ground, any archaeological or historic site.

Assembly Bill 52

Assembly Bill (AB) 52 was passed by the California Legislature and signed into law by the Governor in 2015. It established a new category of resources in CEQA called Tribal Cultural Resources (Public Resources Code § 21074). "Tribal cultural resources" are either of the following:

(1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

(A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.
(B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

(2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

AB 52 establishes a formal project consultation process for California Native American tribes and lead agencies regarding tribal cultural resources, referred to as government-to-government consultation. Per Public Resources Code Section 21080.3.1(b), the AB52 consultation process must begin prior to release of an environmental impact report, mitigated negative declaration, or negative declaration.

Native American tribes to be included in the formal consultation process are those that have requested notice of projects proposed within the jurisdiction of the lead agency. The City of Cathedral City has and continues to carry out on-going consultations with local area tribes and other interested tribes in establishing the presence and protection of tribal cultural resources.

California Register of Historical Resources

For CEQA purposes, "historical resources" applies to any such resources listed in or determined to be eligible for listing in the California Register of Historical Resources, included in a local register of historical resources, or determined to be historically significant by the Lead Agency (Title 14 CCR Section 15064.5(a)(1)-(3)). CEQA guidelines mandate that "generally a resource shall be considered by the lead agency to be 'historically significant' if the resource meets the criteria for listing on the California Register of Historical Resources" (Title 14 CCR Section 15064.5(a)(3)). A resource may be listed in the California Register if it meets any of the following criteria:

a) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
b) Is associated with the lives of persons important in the State's past.
c) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
d) Has yielded, or may be likely to yield, information important in prehistory or history. (Public Resources Code section 5024.1(c))

California Health and Safety Code

California Health and Safety Code Section 7050.5 regulates the treatment of human remains. According to the Code, in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined that the remains are not subject to further investigation. If the coroner recognizes or has reason to believe that the human remains are those of a Native American, he or she shall contact the NAHC to determine the Most Likely Descendant (MLD). Consultation with the designated MLD will determine the final disposition of the remains.

Regional and Local

Cathedral City General Plan

The proposed Cathedral City General Plan Archaeological and Historic Resources Element includes policies that are part of a local regulatory framework within which cultural resources are managed.

Policy 1 The City will ensure that sites in archaeologically and historically sensitive areas are surveyed prior to development.

Policy 2 The City shall make every effort to protect sensitive archaeological and historic resources from vandalism and illegal collection.

Policy 3 The City shall encourage the Cathedral City Historical Society to establish a program to qualify and list locally significant resources on available state and federal registers.

Policy 4 Encourage public participation and appreciation of archaeological and historic resources.

Policy 5 Consider offering economic incentives, such as low-interest loans from all possible sources, and application/permitting fee reductions or waivers, to property owners to encourage the maintenance of significant historical and cultural buildings and sites.

2.6.4 Regional Environmental Setting

Prehistoric Period in the Coachella Valley[1]

Based on current regional knowledge of artifacts and habitation sites dating back approximately 12,000 years, archaeologists have divided the pre-European epoch into five periods: Early Man Period, Paleo-Indian Period, Early Archaic Period, Late Archaic Period, and the Late Prehistoric Period. The prehistoric period in the Coachella Valley is generally divided into the Late Archaic Period and Late Prehistoric Period.

By about 1500 years ago, at the end of the Archaic Period, burial practices changed to cremations and a wider food base was exploited. Milling of foodstuffs continued extensively. The Late Prehistoric Period involved important cultural changes, including the introduction of pottery and the bow and arrow. Ceramics were locally introduced about 1200 years ago. Pottery was an innovation of peoples of the Colorado River, and its presence in the Coachella Valley indicates that contact occurred between inhabitants of the Coachella Valley and Colorado River settlements. From about 800 years ago to just before contact with Europeans in the 1700s, there is evidence of extensive contact and trade with tribes of the Colorado River. This included the distribution of pottery across the upper Colorado and Mojave Deserts. It is from this period that ethnic or tribal affiliations are best known.

The Cahuilla[2]

The Cahuilla Indians are the most recently identifiable native culture to evolve in the Coachella Valley. They were a Takic-speaking, hunting and gathering people from the Great Basin region of Nevada, Utah, and eastern California whose migration into southern California occurred sometime between 1000 BC and AD 500. The Cahuilla are generally divided into three groups by anthropologists: Pass Cahuilla of the Banning-Beaumont area, Mountain Cahuilla from the Santa Rosa and San Jacinto Mountains, and Desert Cahuilla from the western Coachella Valley east to the Salton Sea.

The Cahuilla did not have a single name that referred to an all-inclusive tribal affiliation; rather, membership was in terms of lineages or clans, and each belonged to one or two main divisions of the people, known as moieties. Members of clans in one moiety had to marry into clans from the other moiety. Individual clans had villages, or central places, and territories they called their own. Each clan, or lineage, had its own food harvesting areas, ceremonial house, and lineage chief. However, a number of lineages cooperated with one another for political, social, and economic purposes.

Surveys performed by the U.S. Government Land Office (GLO) in the mid-1850s noted a large number of Native American villages, or rancherias, in the Coachella Valley. All or most of these settlements are believed to have been settlements of the Desert or Pass Cahuilla people. Prominent settlements were located adjacent to major resource areas, including the shorelines of Lake Cahuilla, along the "cove communities" areas supported by shallow wells, mesquite and wildlife resources, and in the Indian Canyons areas of Palm Canyon. Seasonal occupation sites were also associated with palm oases, which were an important source of water, food, and fiber.

It was not until the 1770s that the Cahuilla first encountered Europeans, when Spaniards crossed through Cahuilla territory in search of new land routes between Mexico and northern California. As time passed, relations between European settlers and the Cahuilla became strained due to conflicts over land ownership and exploitation, and religious and cultural practices. European disease, to which the Cahuilla had no immunity, furthered the gap between Indian and non-Indian relations. A smallpox epidemic in the early 1860s decimated the Cahuilla population, which declined from an estimated 6,000 to 10,000 people to only 2,500 individuals.

1 "Cultural Resources Technical Report – Cathedral City General Plan," CRM Tech, July 2, 2001.
2 Ibid; "Historic Resource Context & Historic Resource Program, Cathedral City, California," Kaplan Chen Kaplan, November 21, 2017.

By the time the Valley was re-surveyed by the U.S. government in the early twentieth century, most of the villages and rancherias noted from earlier surveys had vanished, and signs of Euro-American influence, such as fences and irrigation ditches, were observed. The Cahuilla continue to inhabit parts of the Coachella Valley today and are mostly affiliated with one or more Native American reservations in the region. Among these are the Agua Caliente, Torres Martinez, Augustine, Cabazon, Morongo, and Twenty-Nine Palms Reservations.

The Historic Period[3]

Historically significant sites are generally more than forty-five to fifty years of age but range from the period of the earliest European contacts, around the end of the 1700's, to about the end of World War II. Types of potentially significant sites range from permanent trails and highways to living areas and small-scale remains of single activities.

The Coachella Valley region was first explored by Spaniards making forays northward from Mexico along the coast and the Colorado River. The earliest documented period of Spanish influence began in 1769 when explorers moved into what was then referred to as Upper California to establish a military, political, and religious foothold. The development of land routes to supply inland missions brought the Spanish into the region in the 1770's. In 1821, the region fell under the influence of Mexico, as it secured its independence from Spain under the Treaty of Cordova. The issuance of land grants and the establishment of agricultural enterprises, under the organization of rancheros, dominated the region for the next thirty years.

The defeat of Mexico in the Mexican-American War and the signing of the Treaty of Guadalupe Hidalgo in 1848 ushered in a new era. With the region under American control and the discovery of gold in California, California was admitted into the Union in 1850, leading to an influx of peoples from many countries. The first U.S. Government Surveys were made in the Coachella Valley in 1855-56 by surveyors Henry Washington, John La Croze, and James G. McDonald who observed trails and roads crossing the area.

Non-Indian settlement in the Coachella Valley began in earnest in the 1870s, with the establishment of railroad stations along the Southern Pacific line. The rate of settlement increased significantly in the 1880s after public lands were opened for claims under the Homestead Act, Desert Land Act, and other federal land laws. With the availability of underground water resources, farming became the dominant economic activity in the Coachella Valley.

20th Century Development[4]

Most of the Coachella Valley remained unsettled and devoid of any evidence of land development until around the turn of the twentieth century. The only features recorded during that time were the Southern Pacific Railroad, Bradshaw Trail, and another trail along the base of the Little San Bernardino Mountains at the mouth of West Wide Canyon. Several railroad construction workers' camps were present by the early 1900s.

In 1926, the federal government established the National Highway System, which included the Ocean-to-Ocean Highway that ran through the Coachella Valley along its central axis and the Southern Pacific Railroad. Exact dates of construction are unclear, with archival sources tracing it to the late 1930s. Right-of-way for this highway was granted by the federal government in November 1938, which was delineated as U.S 60/70/99.

The date palm was introduced to the area in 1904, and by the late 1910s the date industry was firmly established, extending from present-day Cathedral City south beyond Indio. The date palm became the area's main agricultural staple and the Coachella Valley became known as the "Arabia of America." By the 1920s, resort hotels, equestrian camps, and country clubs gradually developed throughout the Coachella Valley.

3 Ibid.
4 Ibid.

Cathedral City was founded in 1925 by four developers who subdivided one-half Section of land into small lots, drilled a well, and provided a water storage tank with a delivery line. The town was named after Cathedral Canyon to the south. Over time, low-to-moderate income housing developed, making it a more affordable neighbor of Palm Springs. East Palm Canyon Drive (Highway 111) was upgraded in 1927, and several motels and restaurants were developed along the newly paved state highway. During World War II, the city served as a bedroom community for regional military installations. By the mid-1950s, residential development expanded south into the cove, west along Highway 111, and north to Ramon Road, and the city experienced a period of rapid growth. In 1981, Cathedral City was incorporated as the 18th city in Riverside County.

2.6.5 Existing Conditions

Prehistoric Resources in the Planning Area

A cultural resources study for the Cathedral City planning area concluded that the foothills and canyons along the base of the San Jacinto and Santa Rosa Mountains and mesquite dunes between Seven Palms Valley and Edom Hill are highly sensitive for prehistoric archaeological resources.[5] The valley floor, however, demonstrates low sensitivity for prehistoric archaeological resources as it would have offered few resources for native settlements.

The California Office of Historic Preservation (OHP) contracts with nine Information Centers in regions throughout the state to provide historical resources information to local governments, state and federal agencies, Native American tribes, environmental analysts, and the general public. The Eastern Information Center (EIC) at the University of California Riverside is responsible for integrating and supplying this information for Riverside County, including the City of Cathedral City.

According to the EIC, most surveys have been conducted in the northern portion of the planning area on the valley floor and in the Indio Hills; a few have been conducted in the urban core. Only one prehistoric site (CA-RIV-2171), a rock ring feature, has been recorded into the California Historical Resource Information System (CHRIS); its location is kept confidential for its protection.[6] Another prehistoric site in the vicinity of Willow Hole has been reported by the Coachella Valley Archaeological Society, but it has not been recorded.[7]

Six locations of potential Native American cultural significance, listed in the following table and shown on Exhibit 2.6-1, have been identified by anthropologists and Cahuilla cultural authorities. Four are located along the base of the San Jacinto and Santa Rosa Mountains, one in the Whitewater River in the same general vicinity, and one near Edom Hill.

Table 2.6-1
Sites of Cahuilla Cultural Value in the Cathedral City Area

Name	Location	Remarks
Ca wish is mal	Cathedral Canyon	"Painted rock," named by Cahuilla cultural hero *Evon ga net.*
Hou wit s sa ke	Near the mouth of Eagle Canyon	"A bear-skin blanket," named by *Ca wis ke on ca*, a legendary Cahuilla leader.
Kick ke san lem mo	Convergence of Palm Canyon Wash and Tahquitz Creek	"The place where the white flowers grow," named by *Ca wis ke on ca*.
Pa hal ke on a	Edom Hill	Named by *Ca wis ke on ca*.
Pa ute em	Whitewater Wash	Named by *Evon ga net* at the "ground squirrel's home."
Taupakic	Cathedral Canyon	Names by *Hiwinut*, the legendary "great *net* (chief)," "where they gathered the mescal."

Source: "Cultural Resource Technical Report – Cathedral City General Plan," CRM Tech, July 2, 2001

5 "Cultural Resources Technical Report – Cathedral City General Plan," CRM Tech, July 2, 2001.
6 Ibid.
7 Ibid.

Legend

- Prehistoric Archeological Sensitive Sites
- Possible Locations of 1910-1940's Features
- Tribal Cultural Resource
- City Limits

ACBCI Lands Status:

Source: ACBCI, 2018

- Allotted and Leased
- Allotted and Not Leased
- Fee
- Tribal

Pa hal ke on a

Pa ute em

Kick ke san lem mo

Hou wit s sa ke

Taupakic

Ca wish is mal

SARI RD
20TH AVE
21ST AVE
WEST DR
THORNTON RD
MICRO PL
I-10 WBOFF
BANNING-INDIO RD
EDOM HILL RD
RIO VISTA DR
VERONA RD
QUIJO RD
VIA ESCUELA
I-10
I-10 WBON
VALLEY CENTER BLVD
PASADA RD
VARNER RD
VISTA CHINO
PASSAGE ST
CHIA RD
ARCADA ST
NAMBE CT
W LAGUNA DR
LANDAU BLVD
DATE PALM DR
RIO DEL SOL RD
30TH AVE
VEGA RD
MCCALLUM WAY
BARISTO RD
RAMON RD
CORRAL RD
DINAH SHORE DR
33RD AVE
ORTEGA RD
SONORA RD
ESCOBA DR
PAR DR
GOLF CLUB DR
HWY 111
WAVERLY DR
LINCOLN AVE
CATHEDRAL CANYON DR
CONVERSE RD
GERALD FORD DR
OAKMONT DR
CYPRESS LN
SUNNY LN
TAMARISK LN
COBB RD
LA PAZ RD
FRANK SINATRA DR
35TH AVE
39TH AVE
COLUMBIA DR
FOREST HILLS DR
VIA VAIL
DARLA DR
VIA BELLA
I-10 EBON
ROBERT RD
BOB HOPE DR
LOS ALAMOS RD
SAN JOAQUIN DR
AVENIDA LOS NINOS
WINTER DR
SANTORO DR
CAMROSE DR
RATTLER RD
NEUMA DR
CROSSLEY RD
EL CIELO RD
SHIFTING SANDS TRL
FICUS DR
CALLE MORA
VIA DE ANZA
CORREGIDOR DR
PLUMLEY RD
DA VALL DR
DALI DR
BEL AIR DR
DORN RD
ELNA WAY
MORNINGSIDE DR
BOOTHILL P
Palm Springs International Airport
Whitewater River
Cathedral City
Rancho Mirage
D ST

N

07.30.18 Source: ESRI, Esri User Community, 2018; CRM Tech/Aerial Informaiton Systems, 2000-2002, ACBCI Tribal Land Status Map. 2018

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City of Cathedral City General Plan EIR
Culturally Sensitive Areas
Cathedral City, California

Cathedral City

Exhibit
2.6-1

Historic Resources in the Planning Area

The City's 2001 cultural resources survey determined that no areas in the planning area retain sufficient amounts of historic-era characteristics to be considered a historic district.[8] However, several historic resources in the planning area have been listed in the California Historical Resource Information System. Among these are the Southern Pacific Railroad (CA-RIV-9498H) and the ruins of a 1930s-era highway service station on Varner Road, formerly part of the Ocean-to-Ocean Highway.[9] Eight buildings in downtown Cathedral City were added as part of a 1980s countywide historical resources reconnaissance conducted by the Riverside County Historical Commission. All were built between the mid-1920s and late 1930s, but the majority have been removed. Recorded historic-era buildings are described in the following table.

Table 2.6-2
Recorded Historic-Era Buildings in the Planning Area

Property Number	Property Name	Location	Property Type	Year Built
33-5627	Senior Citizen Center*	68-715 A Street	Community Center	1939
33-5628	None	68-537 B Street	Single-family dwelling	1925
33-5629	Desert Exteriors*	68-821 B Street	Residential/commercial	1930s
33-5630	None	37-236 Cathedral Canyon Drive	Single-family dwelling	1920s
33-5631	None**	68-773 D Street	Single-family dwelling	1930s
33-5632	None*	68-918 Dawes Street	Single-family dwelling	1931
33-5633	None*	68-681 Grover Street	Single-family dwelling	1930s
33-5634	Bargain Center*	68902 Highway 111	Commercial building	1920s
33-6885	Ruins of "Old Stone"	Varner Road, east of Mountain View Road	Commercial building	1930s

* No longer present
** Has been significantly altered
Source: California Historical Resource Information System, "Cultural Resources Technical Report – Cathedral City General Plan," CRM Tech, July 2, 2001.

In 2017, the City consulted with community members and institutions knowledgeable about local historic resources and prepared a windshield survey of select areas to identify unique local conditions and neighborhood characteristics.[10] It identified eight (8) historic contexts that can be used to categorize property types in Cathedral City, including:

1. Early Rural/Agricultural Economy, Ranches and Farms, 1910-1930
2. Early Estates, 1920-1940
3. Early Residential Development, 1927-1941
4. Mid-20th Century Residential Development, 1942-1969
5. Artists' Colony, 1932-1961
6. Early Tourism, 1927-1950
7. Entertainment, 1950s-1975
8. Institutional, Civic, and Religious, 1950s-1975

There is currently no local historic resource designation program or preservation ordinance in Cathedral City. The 2017 study described above may be used as a foundation for future local historic designation efforts and programs. The recognized threshold for qualifying as a historic resource or landmark is typically fifty years, and

8 Ibid.
9 Ibid.
10 "Historic Resource Context & Historic Resource Program, Cathedral City, California," Kaplan Chen Kaplan, November 21, 2017.

buildings associated with historic persons or events are required to have some level of architectural integrity that conveys the significance to be preserved. The 2017 study found that many historic buildings in Cathedral City are related to the eight historic contexts and retain historic architectural integrity, but others have undergone significant alterations or been demolished. The 2017 study recommends that the City develop a historic preservation ordinance that establishes a local Register of Historic Places, includes criteria and procedures for inclusion in the register, and sets forth procedures for review of proposed alterations to designated resources.

Agua Caliente Band of Cahuilla Indians

The Agua Caliente Indian Reservation, belonging to the Agua Caliente Band of Cahuilla Indians (ACBCI), is partially located in the City of Cathedral City. The Reservation consists of approximately 31,500 acres generally distributed in Sections of land in a checkerboard pattern within the boundaries of Palm Springs, Cathedral City, Rancho Mirage, and unincorporated Riverside County. The City and ACBCI maintain a close and cooperative relationship to monitor and regulate the use and development of property belonging to, held, leased from, or under agreement with any Indian Allottee or the ACBCI.

2.6.6 Project Impacts

This section evaluates the potential impacts of the proposed General Plan Update to sensitive cultural resources, Tribal cultural resources, and other archaeological and historic resources, using the thresholds of significance described in Section 2.6.2.

Cultural Resources

Would the Project:

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

As noted previously, the City includes several historic properties that have been recorded in the California Historical Resource Information Center, although some have been demolished or significantly altered. The City does not currently have a local register of historical resources and has not otherwise designated any object, building, or structure as historically significant. The City's 2017 Historic Resource Context and Historic Resource Program determined that some buildings are related to the eight local historic context categories and retain some level of architectural integrity, and they may be eligible for inclusion in a future register.

The proposed General Plan is a policy document that will not, in and of itself, result in physical changes to a historical resource. However, implementation of its land use plan and various policies and programs could impact the treatment of historical resources. The Cultural Resources Sub-Element of the General Plan includes policies and programs intended to protect significant historic resources. Policy 1 ensures that sites in historically sensitive areas are surveyed prior to development. Programs 1.A through 1.G establish specific requirements and parameters for the identification and evaluation of archaeological and historic sites. Policy 2 seeks to protect sensitive historic resources from vandalism and illegal collection. Policy 3 encourages the Cathedral City Historical Society to establish a program to list locally significant resources, and Policy 4 encourages the public's appreciation of historic resources. Policy 5 requires the City to consider offering owners of historical buildings and sites economic incentives for property rehabilitation and maintenance. General Plan impacts would be less than significant.

General Plan implementation would facilitate new development and redevelopment in the planning area that could potentially damage, modify, or demolish historic structures and change their significance. Potential impacts of individual development projects to historic resources would be mitigated to less than significant levels through implementation of the above-described policies and programs, as well as project-specific pre-construction surveys that identify historic resources and set forth treatment measures to minimize potential impacts (Mitigation Measure CUL-1).

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

The City includes known archaeological resources and areas of potential Native American cultural significance. It includes land within the Agua Caliente Band of Cahuilla Indians Reservation and the Traditional Use Area of Native Americans. Although the valley floor has low sensitivity for archaeological resources, the foothills and canyons of the Santa Rosa Mountains and mesquite dunes between Seven Palms Valley and Edom Hill, and Edom Hill itself, are highly sensitive for potential archaeological resources.

The proposed General Plan is a policy document that will not, in and of itself, result in adverse physical changes in the significance of an archaeological resource. However, its Cultural Resources Sub-Element sets forth policies and programs that provide for the long-term protection of archaeological resources. Policy 1 and Program 1.A ensure that culturally sensitive areas are surveyed prior to development and that the City coordinates with the Eastern Information Center for review and input. Program 1.E requires that, in the event that archaeological resources are identified during construction, development cease and the site be examined and documented by a professional archaeologist to examine and document the site and determine subsequent actions. Policy 2 calls for the protection of sensitive archaeological resources from vandalism and illegal collection. Policy 3 encourages the Cathedral City Historical Society to establish a program to qualify and list locally significant resources on available state and federal registers, and Policy 4 encourages public participation and appreciation of archaeological resources. General Plan impacts would be less than significant.

Nonetheless, implementation of the proposed General Plan land use plan would facilitate new development throughout the City, some of which could occur in areas with high sensitivity for archaeological resources. Ground disturbance associated with grading and construction could uncover significant archaeological resources. Potential impacts near the canyons and foothills of the Santa Rosa Mountains are not expected to be significant because ground surfaces in this area have been disturbed and developed with residential uses (Cathedral Cove) for decades, and remaining vacant land in East and West Cathedral Canyon is preserved as Open Space by the proposed General Plan.

Potential impacts to archaeological resources can be expected to be greater north of I-10, in the archaeologically sensitive areas near and within Seven Palms Valley, Edom Hill, and Willow Hole. Other than electricity transmission lines, above-ground water reservoirs, and waste management facilities, these lands are vacant and undisturbed. The General Plan designates some, including Willow Hole, as Open Space, but residential and other urban uses are proposed elsewhere. As the planning area builds out, features or artifacts of prehistoric origin may be uncovered during ground disturbing activities. Future development projects would be evaluated on a project-by-project basis to determine the presence of archaeological resources and determine their significance. Impacts of individual development projects on archaeological resources would be reduced to less than significant levels through pre-construction surveys (Mitigation Measure CUL-1), impact avoidance and/or proper procurement and documentation of unearthed archaeological resources (Mitigation Measure CUL-2).

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

The Cahuilla were among the earliest Native American inhabitants of the Coachella Valley, and they are known to have used and/or occupied land in Cathedral City and neighboring communities. Therefore, the potential exists for human remains to be unearthed during ground disturbance activities, such as grading and sub-surface excavation.

The General Plan is a policy document that will not, in and of itself, disturb any human remains. Its land use plan protects established cemeteries from disturbance by designating them Public–Cemetery (P/C). Implementation of the land use plan could facilitate urban development on vacant lands, including within archaeologically sensitive areas. Policy 1 of the Cultural Resources Sub-Element requires that archaeologically sensitive areas be surveyed prior to development, and that development cease for inspection in the event that human remains or other potentially significant archaeological resources are identified. General Plan impacts would be less than significant.

However, should human remains be discovered in conjunction with individual development projects in the planning area, the provisions of California Health and Safety Code Sections 7050.5 - 7055 and Mitigation Measure CUL-3 would ensure that impacts would be mitigated to less than significant levels.

Tribal Cultural Resources

Would the Project:

a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Previously Known Tribal Resources:
As noted previously, the General Plan planning area contains an archaeological rock ring feature that has been listed in the California Historical Resources Information System (CHRIS), and six locations identified by anthropologists and Cahuilla cultural authorities as having potential Native American cultural significance.

In June 2018, in compliance with AB 52, the City notified the ACBCI of a proposed project at the Edom Hill Compost Site. In response, the ACBCI noted that the site was not within the boundaries of the ACBCI Reservation but was within the Tribe's Traditional Use Area.[11] The Tribe requested that Edom Hill be noted as a Tribal Cultural Resource in all project environmental documents, and that the City take impacts to Edom Hill into consideration as a Tribal Cultural Resource for all future projects. However, the Tribe declined monitoring as mitigation for the Edom Hill project as the project area has been heavily disturbed. Edom Hill has been added to the City General Plan inventory of archaeologically sensitive lands.

Tribal Consultation:
SB 18 and AB 52 require the City to initiate a formal consultation process with relevant Tribes prior to adopting or amending a General Plan or releasing an environmental impact report, negative declaration, or mitigated negative declaration. In September 2018, the City sent written correspondence to twenty-one (21) Tribal representatives in compliance with SB 18, and seven (7) Tribal representatives in compliance with AB 52, to notify them of the City's intent to prepare a General Plan Update and associated EIR. The notified Tribes included:

- Agua Caliente Band of Cahuilla Indians
- Morongo Band of Missions Indians
- Twenty-Nine Palms Band of Mission Indians
- Torres Martinez Desert Cahuilla Indians
- Cabazon Band of Mission Indians

[11] Letter to Robert Rodriguez, City of Cathedral City, from Patti Garcia-Plotkin, Director, Tribal Historic Preservation Office, Agua Caliente Band of Cahuilla Indians, regarding Edom Hill Compost Facility CUP No. 15-005, June 26, 2018.

- Soboba Band of Luiseño Indians
- Cahuilla Band of Indians
- Ewiiaapaayp Tribal Office
- La Posta Band of Mission Indians
- Santa Rosa Band of Mission Indians
- Viejas Band of Kumeyaay Indians
- Augustine Band of Cahuilla Mission Indians
- Campo Band of Mission Indians
- Jamul Indian Village
- Los Coyotes Band of Mission Indians
- Ramona Band of Cahuilla Mission Indians
- Sycuan Band of the Kumeyaay Nation
- Manzanita Band of Kumeyaay Nation
- San Pasqual Band of Mission Indians

The City also sent notification of proposed land use changes in the vicinity of Date Palm Drive and 30th Avenue to the Bureau of Indian Affairs who sent it to all 158 ACBCI allottees. Comments in response to the EIR Notice of Preparation were received from the Native American Heritage Commission, the Augustine Band of Cahuilla Indians, the Viejas Band of Kumeyaay Indians, and the Morongo Band of Mission Indians. These and other NOP comment letters can be found in Appendix A of this DEIR. Copies of the SB 18 and AB 52 notification letters are also included in Appendix A.

Analysis:
The General Plan land use plan would facilitate new development and redevelopment in Cathedral City. Site disturbances on vacant land, such as grading and subsurface excavations, may unearth previously unknown tribal cultural resources, particularly in culturally sensitive areas north of I-10. However, the Cultural Resources Sub-Element of the General Plan includes Policies 1, 2, and 4 and their respective programs, that would protect cultural resources from development, vandalism, and illegal collection, and encourage public participation in the appreciation and protection of cultural resources. Program 4.A requires the City's continued coordination and cooperation with the ACBCI in the protection of cultural resources, which will reduce impacts to tribal resources. Impacts of the proposed General Plan on Tribal Cultural Resources would be less than significant.

Mitigation Measures CUL-1, CUL-2, and CUL-3 will assure that potential impacts of individual development projects within the planning area on Tribal Cultural Resources are reduced to less than significant levels.

2.6.7 Mitigation Measures

The following includes avoidance, minimization and mitigation measures that serve to protect identified cultural, Tribal and historical resources that could result from implementing the Proposed Project. The following measures shall be implemented, as appropriate and applicable, to ensure that impacts to these resources resulting from individual development projects are mitigated to less than significant levels.

CUL-1 In instances where maintenance, repair, stabilization, rehabilitation, restoration, preservation, conservation or reconstruction of an historical resource will be conducted in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings (1995), the project's impact on the historical resource shall generally be considered mitigated below a level of significance and thus is not significant.

CUL-2 Where appropriate and in conjunction with other measures, require documentation of an historical resource by way of historic narrative, photographs or architectural drawings, prior to impacting the resource, and require additional mitigation where necessary to ensure that adequately mitigate the effects to a point where impacts are clearly less than significant.

CUL-3 Whenever feasible, seek to avoid damaging effects on any historical resource of an archaeological nature. The following factors shall be considered and discussed in CEQA documentation for a project involving such an archaeological site:

(A) Preservation in place shall be the preferred manner of mitigating impacts to archaeological sites. Preservation in place maintains the relationship between artifacts and the archaeological context. Preservation may also avoid conflict with religious or cultural values of groups associated with the site.

(B) Preservation in place may be accomplished by, but is not limited to, the following:

1. Planning construction to avoid archaeological sites;
2. Incorporation of sites within parks, greenspace, or other open space;
3. Covering the archaeological sites with a layer of chemically stable soil before building tennis courts, parking lots, or similar facilities on the site.
4. Deeding the site into a permanent conservation easement.

(C) When data recovery through excavation is the only feasible mitigation, a data recovery plan, which makes provision for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken. Such studies shall be deposited with the California Historical Resources Regional Information Center. Archaeological sites known to contain human remains shall be treated in accordance with the provisions of Section 7050.5 Health and Safety Code. If an artifact must be removed during project excavation or testing, curation may be an appropriate mitigation.

(D) Data recovery may not necessarily be required for an historical resource if the City, as CEQA lead agency determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the archaeological or historical resource, provided that the determination is documented in the project EIR and that the studies are deposited with the California Historical Resources Regional Information Center.

CUL-4 Pre-Construction Surveys

The City shall require intensive-level cultural resources surveys by qualified archaeologists, historians, and/or architectural historians, where deemed necessary and especially in areas of high sensitivity for cultural resources, as shown on Exhibit 2.6-1. Studies should include in-depth records search at the EIC, historic background research, intensive-level field survey, and consultation with the Cathedral City Historical Society, Native American representatives, and/or other relevant parties, as well as impact evaluation and mitigation programs, as needed. The City shall monitor and enforce recommended mitigation measures.

CUL-5 Archaeological and/or Tribal Resource Procurement and Documentation

Should unknown archeological or tribal cultural resource materials become unearthed, the area of potential resources shall be cordoned off and protected from further disturbance until a qualified archeologist can investigate the discovery. The qualified archaeologist shall prepare a findings report summarizing the methods and results of the investigation, including an itemized inventory and detailed analysis of recovered artifacts upon completion of field and laboratory work. The report shall include an interpretation of the cultural activities represented by the artifacts and a discussion of the significance of all archaeological or tribal finds. The submittal of the report to the City and Tribal representative, as

appropriate, along with final curation of the recovered artifacts, will signify completion of the monitoring program and, barring unexpected findings of extraordinary significance, the mitigation of potential project impacts on cultural and tribal resources.

CUL-6 Human Remains
Should buried human remains be discovered during grading or other construction activity, in accordance with State law, the County coroner shall be contacted. If the remains are determined to be of Native American heritage, the Native American Heritage Commission and the appropriate local Native American Tribe shall be contacted to determine the Most Likely Descendant (MLD).

2.6.8 Significance After Mitigation

With implementation of the mitigation measures described above, impacts of future development projects within the General Plan planning area would be reduced to less than significant levels.

2.6.9 Cumulative Impacts

The geographic scope of analysis of potential cumulative impacts on cultural, historical, and tribal resources includes the General Plan planning area, its immediate vicinity, and traditional use areas of the Cahuilla people in the Coachella Valley. The Proposed Project would contribute considerably to cumulative impacts if it were to have a substantial or significant adverse effect on these cultural resources.

Cultural resources surveys conducted in the project area evaluated a wide range of literature, data, and information on historic, tribal, and other archaeological resources and generated a baseline of knowledge and understanding of these resources. The tribal consultation process garnered additional information about tribal resources in the area. Several cultural resources have been listed in the California Historical Resource Information System. Areas of high sensitivity for archaeological resources have been identified.

Future urban development facilitated by the proposed General Plan would contribute to regional losses of vacant land, ground surface disturbances, and the potential discovery of previously unknown cultural resources. However, implementation of policies and programs in the General Plan Cultural Resources Sub-Element and the mitigation measures described above will reduce impacts to cultural resources in the planning area. The Proposed Project's incremental impacts to these resources would not be cumulatively considerable.

2.7 Mineral and Energy Resources

2.7.1 Introduction

This section of the Draft EIR provides a description of energy and mineral resources within the City of Cathedral City, information on regulations and agencies with jurisdiction over the planning area, proposed General Plan policies relevant to energy and mineral resources, and an analysis of potential impacts related to energy and mineral resources resulting from implementation of the proposed General Plan Update. The regulatory environment and thresholds of significance are described. Mitigation measures are set forth where needed. The discussion concludes with a discussion of residual and cumulative impacts.

2.7.2 Thresholds of Significance

The following analysis criteria and thresholds are based on Appendix G and derived from Appendix F of State CEQA Guidelines. A project would have a significant impact relating to energy and mineral resources if it would:

Mineral Resources

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

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

Energy

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

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

2.7.3 Regulatory Framework

Federal

National Energy Policy Act of 2005

The National Energy Policy Act of 2005 addresses energy production in the United States, including: (1) energy efficiency; (2) renewable energy; (3) oil and gas; (4) coal; (5) Tribal energy; (6) nuclear matters and security; (7) vehicles and motor fuels, including ethanol; (8) hydrogen; (9) electricity; (10) energy tax incentives; (11) hydropower and geothermal energy; and (12) climate change technology. For example, the Act provides loan guarantees for entities that develop or use innovative technologies that avoid the by-production of greenhouse gases. Another provision of the Act increases the amount of biofuel that must be mixed with gasoline sold in the United States.[1]

[1] United States Environmental Protection Agency Website - Laws & Regulations, Summary of the Energy Policy Act 42 USC §13201 et seq. (2005).

State

Surface Mining and Reclamation Act of 1975

The California Surface Mining and Reclamation Act of 1975 (SMARA) was enacted in response to land use conflicts between urban growth and essential mineral production. SMARA requires the State Geologist to classify land based on the presence of economically important mineral resources. Local governments should consider this information before land with important mineral resources is committed to use that may be incompatible with mining or extraction. Pursuant to SMARA, the California Geological Survey (CGS) has mapped mineral resources using a system of Mineral Resource Zone (MRZ) classifications that reflect the known or inferred presence and significance of a given mineral resource.

California 2008 Energy Action Plan Update

The 2008 update to the 2005 Energy Action Plan II is the State's principal energy planning and policy document. The updated document examines the State's ongoing actions in the context of global climate change. The Energy Action Plan II continues the goals of the original 2003 Energy Action Plan, describes a coordinated implementation plan for State energy policies, and identifies specific action areas to ensure that California's energy resources are adequate, affordable, technologically advanced, and environmentally sound. In accordance with this plan, the first-priority actions to address California's increasing energy demands are energy efficiency and demand response (i.e., reduction of customer energy usage during peak periods to address system reliability and support the best use of energy infrastructure). Additional priorities include the use of renewable sources of power and distributed generation (i.e., the use of relatively small power plants near or at centers of high demand). To the extent that these actions are unable to satisfy the increasing energy demand and transmission capacity needs, clean and efficient fossil-fired generation is supported.

The California 2008 Energy Action Plan Update examines policy changes in the areas of energy efficiency, demand response, renewable energy, electricity reliability and infrastructure, electricity market structure, natural gas supply and infrastructure, research and development, and climate change.

Assembly Bill 32 (2006) and Senate Bill 32 (2016)

In 2006, the Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020. In 2016, the Legislature enacted SB 32, which extended the horizon year of the State's codified GHG reduction planning targets from 2020 to 2030, requiring California to reduce its GHG emissions to 40% below 1990 levels by 2030. In accordance with AB 32 and SB 32, the California Air Resources Board (CARB) prepares scoping plans to guide the development of statewide policies and regulations for the reduction of GHG emissions. Many of the policy and regulatory concepts identified in the scoping plans focused on increasing energy efficiencies and the use of renewable resources and reducing the consumption of petroleum-based fuels (such as gasoline and diesel). As such, the State's GHG emissions reduction planning framework creates co-benefits for energy-related resources. Additional information on AB 32 and SB 32 is provided in Section 2.4 of this EIR.

Senate Bill 375

Senate Bill 375 (SB 375) directs CARB to set regional targets for reducing GHG emissions. Specifically, SB 375 builds on the existing framework of regional planning to tie together the regional allocation of housing needs and regional transportation planning in an effort to reduce GHG emissions from motor vehicle trips. SB 375 requires each MPO to include a "Sustainable Communities Strategy" (SCS) in the regional transportation plan that demonstrates how the region will meet the GHG emission targets and help achieve the reduction goals for cars and light trucks under AB 32. Additional information on SB 375 and SCS is provided in Section 2.4 of this EIR.

California Building Standards

Part 6 of Title 24 of the California Code of Regulations was established in 1978 and serves to enhance and regulate California's building standards. Part 6 establishes energy efficiency standards for residential and non-residential buildings constructed in California to reduce energy demand and consumption. Part 6 is updated periodically to incorporate and consider new energy efficiency technologies and methodologies.

The 2016 Title 24 building energy efficiency standards, which became effective on January 1, 2017, further reduce the energy used in the State. In general, single-family homes built to the 2016 standards are anticipated to use approximately 28% less energy for lighting, heating, cooling, ventilation, and water heating than those built to the 2013 standards, and non-residential buildings built to the 2016 standards will use an estimated 5% less energy than those built to the 2013 standards.[2]

Title 24 also includes Part 11, the California Green Building Standards (CALGreen). The CALGreen standards took effect in January 2011 and instituted mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential, and State-owned buildings, as well as schools and hospitals. The 2016 CALGreen standards became effective on January 1, 2017. The mandatory standards require the following:[3]

- 20% mandatory reduction in indoor water use;
- 50% diversion of construction and demolition waste from landfills; and
- Mandatory inspections of energy systems to ensure the optimal working efficiency.

Integrated Energy Policy Report

The California Energy Commission (CEC) is responsible for preparing integrated energy policy reports, which identify emerging trends related to energy supply, demand, conservation, public health and safety, and maintenance of a healthy economy. The CEC's 2015 Integrated Energy Policy Report discusses the State's policy goal to require that new residential construction be designed to achieve zero net energy (ZNE) standards by 2020 and that new non-residential construction be designed to achieve ZNE standards by 2030.[4,5]

State Vehicle Standards

In response to the transportation sector accounting for more than half of California's carbon dioxide (CO_2) emissions, AB 1493 was enacted in 2002. AB 1493 required CARB to set GHG emission standards for passenger vehicles, light-duty trucks, and other vehicles determined by the State board to be vehicles whose primary use is noncommercial personal transportation manufactured in 2009 and all subsequent model years. The 2009–2012 standards resulted in a reduction in approximately 22% in GHG emissions compared to emissions from the 2002 fleet, and the 2013–2016 standards resulted in a reduction of approximately 30%.

In 2012, CARB approved a new emissions-control program for model years 2017 through 2025. The program combines the control of smog, soot, and global warming gases and requirements for greater numbers of zero-emission vehicles into a single package of standards called Advanced Clean Cars. By 2025, when the rules would be fully implemented, new automobiles would emit 34% fewer global warming gases and 75% fewer smog-forming emissions (CARB 2011).

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2 California Energy Commission (CEC) Website, 2016 Building Energy Efficiency Standards – Frequently Asked Questions. https://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2016_Building_Energy_Efficiency_Standards_FAQ.pdf, Accessed April 2019.

3 Guide to the 2016 California Green Building Standards Code Nonresidential by CALGreen.

4 New Residential Zero Net Energy Action Plan 2015-2020 Executive Summary prepared by California Public Utilities Commission (Energy Division) and California Energy Commission (Efficiency Division).

5 Commercial Zero Net Energy Action Plan Draft prepared by California Public Utilities Commission in 2017.

Although the focus of the State's vehicle standards is on the reduction of air pollutants and GHG emissions, one co-benefit of implementation of these standards is a reduced demand for petroleum-based fuels.

Regional and Local

2013 Cathedral City Climate Action Plan

In response to AB 32 and CARB's Climate Change Scoping Plan, the City of Cathedral City completed its first Climate Action Plan in May 2013 in an effort to address climate change at the local level by reducing greenhouse gas emissions within its own operations and within the overall community. The Climate Action Plan provides a framework for the development and implementation of policies and programs that will reduce the City's emissions and is tracked via the City's Greenhouse Gas Inventory. In addition to the Climate Action Plan, the City prepared an Energy Action Plan (2013) (see below) to identify opportunities for cost savings through energy efficiency and actions necessary to meet the City's future energy needs, consistent with the energy policies set forth by the State of California.

2013 Energy Action Plan

In 2013, the City of Cathedral City adopted an Energy Action Plan (EAP) to identify actions necessary to meet the City's future energy requirements and be compliant with energy policies set forth by the State of California. The EAP includes a breakdown of municipal energy usage and provides a number of energy-related policies that focus on energy-efficient upgrades and municipal programs/actions meant to reduce municipal and community-wide energy usage and greenhouse gas (GHG) emissions.

Cathedral City General Plan

The City's Proposed General Plan Energy and Mineral Resources Element addresses the conventional and renewable energy resources in the City and surrounding areas. The element contains numerous policies to encourage conservation of energy and mineral resources and usage of local wind, solar and other renewable resources such as:

> **Policy 1:** Encourage conservation in the planning and construction of urban uses and in the regional transportation system.
>
> **Policy 2:** The General Plan and other City documents, such as the 5 Year Capital Improvement Program, shall assure an efficient circulation system and land use pattern in the City which minimizes travel.
>
> **Policy 3**: Support long-term strategies, consistent with state and federal legislation and regulations, that assure affordable, reliable and environmentally sustainable production and delivery of electrical power to the community.
>
> **Policy 4:** Continue to proactively support and participate in local and regional efforts to develop and operate alternative systems that take advantage of local wind, solar and other renewable resources.
>
> **Policy 5:** To further reduce nonrenewable energy use in transportation, the City shall facilitate provision of information on bike and NEV routes, bus routes and the transit network, ridesharing and ride-booking services to residents and businesses.
>
> **Policy 6:** The City shall continue to explore and update policies that increase energy efficiency and the use of alternative sources for the economic, environmental and social benefit of the City.

2.7.4 Regional Environmental Setting

Mineral Resources

Definition

California Public Resources Code Section 2005 defines minerals as "any naturally occurring chemical element or compound, or group of elements and compounds, formed from inorganic processes and organic substances, including, but not limited to, coal, peat, and bituminous rock, but excluding geothermal resources, natural gas, and petroleum." Mineral resources can be used for a variety of uses, making them important to community development and commerce. The importance and value of mineral resources, coupled with their limited availability, make careful planning a necessity. Moreover, the mining, processing, and distribution of mineral resources can have broad and varied implications for the environment. Surface mining, for example, can scar the landscape for hundreds of years if a mine is not adequately reclaimed.

Locally Important Mineral Resources

The region and especially the surrounding mountains have a history of mining that dates back to the late 1800s. Mines in the Santa Rosa and San Jacinto National Monument have produced gold, asbestos, beryllium, limestone, tungsten, copper, tourmaline, and garnet. With the exception of limestone, however, these mineral deposits have not been extensively mined, are limited, or are not precisely known.

Mountain ranges and eroding hills surrounding the Coachella Valley have filled the Valley with significant amounts of sand and gravel, known collectively as aggregate. Aggregate is used for asphalt, concrete, road base, stucco, plaster, and other similar construction materials. The Palm Springs Production-Consumption (P-C) Region is a 631 square mile area in the Coachella Valley that is heavily mined for aggregate. According to the California Geological Survey, the Palm Springs P-C Region has 30,072 acres classified as the land where significant mineral deposits are present,[6]or where it is judged that a high likelihood for their presence exists. The Palm Springs region contains 3.2± billion tons of aggregate resources.

Local Aggregate Demand

According to California Geological Survey Special Report 198, the average local annual per capita consumption rate for aggregate in the Palm Springs Production-Consumption Region is 9.6 tons.[7] The State Geological Survey anticipates that demand will probably stabilize at a lower rate as the local market matures, but demand from outside the region may offset to some degree local declines. Total regional PCC-grade aggregate reserves (available permitted resources) were 167 million tons in 2005 (latest data available). They are expected to be sufficient to satisfy local demand through the year 2038, barring any unforeseen events affecting construction like a major economic recession or massive urban renewal.

While the Coachella Valley has an abundant, high-quality local supply of PCC-grade aggregate, a desirable commodity for development markets, transportation costs are a major component affecting cost competitiveness. Given the widespread deposition of aggregate materials in southern California, demand for local resources is expected to remain largely local.

6 Mineral Land Classifications: Aggregate Materials in the Palm Springs Production-consumption Region, Riverside County, California. Special Report 159 (SR 159) by California Department of Conservation Division of Mines and Geology.

7 Update of Mineral Land Classifications for Portland Cement Concrete-grade Aggregate in the Palm Springs Production-consumption Region, Riverside County, California. Special Report 198 (SR 198) by California Department of Conservation Division of Mines and Geology.

Classifications

The California Geological Survey collects and analyzes information about the State's mineral resources. As set forth in Section 2761(b) of SMARA, the State Geologist classifies land for mineral resources solely on the basis of geologic factors, regardless of existing land use and land ownership. Mineral land classifications for Portland cement concrete (PCC)-grade aggregate materials in the Coachella Valley were mapped by the State Geological Survey in 1988 (Special Report 159) and updated in 2007 (Special Report 198).[8] Areas subject to mineral land classification studies are divided by the State Geologist into Mineral Resource Zone (MRZ) categories that reflect varying degrees of mineral resource potential. The MRZ categories are briefly described below.

- MRZ-1: Areas where available geologic information indicates that little likelihood exists for the presence of significant mineral resources.

- MRZ-2 (used in Special Report 159): Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood for their presence exists. This zone shall be applied to known mineral deposits or where well-developed lines of reasoning, based upon economic-geologic principles and adequate data, demonstrate that the likelihood for the occurrence of significant mineral deposits is high.

- MRZ-2a: Areas underlain by mineral deposits where geologic data indicate that significant *measured or indicated* resources are present. Contains known economic mineral deposits.

- MRZ-2b: Areas underlain by mineral deposits where geologic information indicates that significant *inferred* resources are present.

- MRZ-3: Areas containing *known* or inferred mineral occurrences of undetermined mineral resource significance.

In the Coachella Valley, MRZ-1 areas are generally located in the Rancho Mirage, Palm Desert, Indio, Coachella, and Thermal areas. MRZ-2 areas are generally located in the northwestern portion of Palm Springs and North Indio Hills. The majority of the Palm Springs, Cathedral City, Thousand Palms, Desert Hot Springs, Indian Wells, and La Quinta area are designated MRZ-3.

Energy

Primary energy sources include nuclear energy, fossil energy (oil, coal and natural gas), and renewable sources like wind, solar, geothermal, and hydropower. These primary sources are converted to electricity, a secondary energy source, which flows through power lines and other transmission infrastructure to developments.

Electricity

Electricity, a consumptive utility, is a man-made resource. The delivery of electricity involves a number of system components, including substations and transformers that lower transmission line power (voltage) to a level appropriate for on-site distribution and use. Conveyance of electricity through transmission lines is typically responsive to project demands.

The production of electricity requires the consumption or conversion of energy resources (e.g., water, wind, oil, gas, coal, solar, geothermal, and nuclear resources) into electric energy. In California, the main sources of electrical energy are both conventional and renewable sources, as follows:[9]

[8] Ibid.

[9] California State Auditor Report 2007-119, https://www.bsa.ca.gov/reports/summary/2007-119, Accessed January 2019.

Table 2.7-1
Mix of Conventional and Renewable Energy
In California (2018)

Conventional Sources	Renewable Sources
Natural gas 41.5%	Geothermal 4.7%
Large hydro 19.0%	Biomass 2.1%
Coal 15.7%	Small hydro 2.1%
Nuclear 12.9%	Wind 1.8%
	Solar 0.2%
Subtotal 89.1%	**Subtotal 10.9%**

Electric power capacity electrical power) is generally measured in watts, while electricity use is measured in watt-hours. Residential, commercial, and industrial sectors are the three main consumers of electricity. According to the California Energy Commission, statewide electricity consumption in 2019 is projected to be approximately 320,000 GWh and is projected to increase to 333,838 GWh in 2022.[10] The Statewide Electricity Annual per capita consumption is also projected to grow from 7,700 kWh in 2019 to 7,900 kWh in 2022.[11] The average annual electricity demand growth in California from 2012 to 2024 is expected to range from 0.88 to 1.82 percent, while peak annual electricity demand growth is expected to range from 0.97 to 1.92 percent.[12]

Southern California Edison (SCE) provides electricity services to Cathedral City.

Non-Renewable Energy Sources

Natural Gas
Natural gas is a combustible mixture of simple hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas consumed in California is obtained from naturally occurring reservoirs, mainly located outside the State, and delivered through high-pressure transmission pipelines. The natural gas transportation system is a nationwide network, and therefore, resource availability is typically not an issue. Natural gas satisfies almost one-third of the State's total energy requirements and is used in electricity generation, space heating, cooking, water heating, industrial processes, and as a transportation fuel. Natural gas is measured in terms of cubic feet.

According to the California Energy Commission, statewide natural gas consumption in 2019 is projected to be approximately 13,500 MM therms, which will increase to 13,929 MM therms in 2022.[13] The Statewide natural gas annual consumption per capita is projected to decline from 340 therms in 2019 to 330 therms in 2022.[14]

The Gas Company provides natural gas services to the Coachella Valley.

10 California Energy Demand 2012-2022 Final Forecast Document by California Energy Commission (Table 1-1, Final Forecasts of Statewide Electricity Demand).
11 California Energy Demand 2012-2022 Final Forecast Document by California Energy Commission (Figure 1-2 (Final Forecasts of Statewide Electricity Demand).
12 2013 Integrated Energy Policy Report by California Energy Commission.
13 California Energy Demand 2012-2022 Final Forecast by California Energy Commission – Table 1-1 (Final Forecasts of Statewide Electricity Demand).
14 California Energy Demand 2012-2022 Final Forecast by California Energy Commission – Figure 1-2 (Final Forecasts of Statewide Electricity Demand).

Petroleum Fuels

Fossil fuels are formed by natural processes, such as anaerobic decomposition of buried dead organisms, containing energy originating in ancient photosynthesis. Fossil fuels contain high percentages of carbon and include petroleum, coal, and natural gas.

Petroleum is the dominant source of transportation energy. According to the California Energy Commission (CEC), transportation accounts for nearly 40% of California's total energy consumption and approximately 39% of the State's greenhouse gas emissions.[15]

In 2015, California consumed 23.2 billion gallons of petroleum, including 15.5 billion gallons of finished gasoline and 3.7 billion gallons of diesel.[16] The State is working on developing flexible strategies to reduce petroleum use. Over the last decade, California has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHGs from the transportation sector, and reduce vehicle miles traveled (VMT). Accordingly, gasoline consumption in California has declined. The CEC predicts that the demand for gasoline will continue to decline over the next ten years and there will be an increase in the use of alternative fuels, such as natural gas, biofuels, and electricity.

According to the CEC, current statewide gasoline consumption is approximately 15.2 billion gallons, which is projected to decrease to 12.6 billion gallons in 2030.[17] The current statewide diesel consumption is approximately 4.10 billion gallons, which is projected to decrease to 3.85 billion gallons in 2030.[18]

Renewable Energy Sources

Geothermal

Geothermal energy is produced by the heat of the earth and is often associated with volcanic or seismically active regions. The State of California has 25 Known Geothermal Resource Areas (KGRAs), fourteen (14) of which have temperatures of 300 degrees Fahrenheit or greater.[19] Approximately 11,528 gigawatt-hours (GWh) of electricity was produced from geothermal sources in California in 2018.[20]

The northwestern portion of the Coachella Valley contains limited geothermal resources, including hot springs in Palm Springs and Desert Hot Springs. These hot water areas result from faults and are primarily focused along the Mission Creek fault but also along the Palm Canyon fault. The geothermal energy produced in Palm Springs and Desert Hot Springs is generally used for commercial spas and therapeutic pools. These resources are limited, located on private lands, and not used for energy production. Geothermal energy on a utility scale has been found and developed at the south end of the Salton Sea in Imperial County, where more than 1,170.46 megawatts of geothermal electric power have been developed.[21]

15 Integrated Energy Policy Report 2013 IEPR by California Energy Commission – Page 21.
16 Revised Transportation Energy Demand Forecast, 2018-2030, by California Energy Commission (February 2018) – Page 35.
17 California Energy Demand 2012-2022 Final Forecast by California Energy Commission – Table 1-1 (Final Forecasts of Statewide Electricity Demand).
18 Revised Transportation Energy Demand Forecast, 2018-2030, by California Energy Commission (February 2018) – Page 74-76.
19 California Energy Commission Website - California Geothermal Energy Statistics & Data, https://www.energy.ca.gov/almanac/renewables_data/geothermal/, Accessed April 2019.
20 Ibid.
21 Ibid.

Wind
The Coachella Valley region has seen major developments in wind energy; the region is known internationally for the scale of wind resource development. The western Coachella Valley is a proven wind resource area, where strong and sustained winds are channeled through the San Gorgonio Pass and into the valley. Today, the San Gorgonio Pass is home to one of the nation's largest wind farms; it includes more than 2,299 wind turbines, with a total capacity of 665 megawatts.[22]

Solar
The Coachella Valley region is a growing source of electricity generated by solar photovoltaic systems being developed on residential rooftops, commercial and industrial buildings, institutional uses, and covered parking structures.

2.7.5 Existing Conditions

Mineral Resources

Mineral land use classification maps of the Coachella Valley show that Mineral Resource Zone 3 (MRZ-3) applies to Cathedral City.[23] MRZ-3 generally refers to areas where development has limited the ability to determine the presence or amount of mineral resources.

The nearest Mineral Resource Zone to Cathedral City is in the Indio Hills near the community of Thousand Palms -- near, but outside of, the city's sphere-of-influence (SOI). It contains an area designated MRZ-2a PCC-3. This 50.5±-acre site was reclassified from MRZ-2 in California Geological Survey Special Report 159 to MRZ-2a for PCC-grade aggregate in Special Report 198. The E.L. Yeager Construction Company is permitted to mine in this area. However, there are no mapped or exploited mineral resources in the City or its SOI.

Energy

Electricity
Southern California Edison (SCE) currently provides electricity services to Cathedral City. According to the City's Greenhouse Gas Inventory (2013), city-wide electricity usage in Cathedral City in 2010 was 328,671,890 kWh . This includes all electricity consumed by municipal buildings, residential, commercial, and industrial land uses, and resorts and golf courses, combined. The report has not since been updated, and a more recent estimate is not currently available. However, it can be assumed that current electricity usage per capita will be comparable to 2010, if not less, due to the increased energy efficiency standards of the California Building and Energy Codes.

Along with the cities of Palm Springs and Palm Desert, Cathedral City has formed an energy provider called Desert Community Energy (DCE) which is expected to be operational in 2020. DCE will use cleaner electricity sources and feed it into the grid, partnering with Southern California Edison to deliver electricity and manage the lines, poles, and customer service. DCE is a Community Choice Aggregation program, otherwise known as a CCA. It is a public joint powers agency located within the geographic boundaries of Riverside County. It formed in 2017 for the purpose of offering rate savings to electricity customers and developing and implementing sustainable energy initiatives that reduce energy demand, increase energy efficiency, and advance the use of clean, efficient and renewable resources available in the region. It is governed by a board of directors that includes an elected representative from each participating city.[24]

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22 United States Wind Turbine Database - USGS Energy Resources, July 2018 https://eerscmap.usgs.gov/uswtdb/viewer/#14.75/33.88239/-116.46539, Accessed April 2019.

23 California Geological Survey, Department of Conservation (CGS), 2007. Update of Mineral Land Classifications for Portland Cement Concrete-grade Aggregate in the Palm Springs Production-consumption Region, Riverside County, California. Update to CGS Special Report 198 (SR 198), by Lawrence L. Busch.

24 Desert Community Energy - 2018 Integrated Resource Plan, prepared in August 2018.

Natural Gas
The Gas Company provides natural gas services to Cathedral City. According to the City's Greenhouse Gas Inventory Update, city-wide natural gas consumption totaled 7,678,818 therms in 2010. This includes natural gas consumed by residential, commercial, and industrial land uses, and resorts and golf courses. The report has not been updated, and a more recent estimate is not currently available. However, similar to statewide predictions, it can be assumed that the annual consumption of natural gas per capita within the City of Cathedral City will be comparable to 2010 or will decline as more energy efficiencies become available.

Wind
Eight wind turbines currently operate in Cathedral City on Edom Hill (BLM lands), with a capacity of approximately 2.5 megawatts. Most turbines are three-blade, horizontal axis machines with galvanized or painted steel towers; larger turbines can exceed 300 feet in overall height.

Solar
Cathedral City is a leader in the installation of solar PV systems, including large systems at the Civic Center. Stand-alone industrial-scale development of PV systems have been somewhat limited but have been integrated to some degree with wind turbine development.

2.7.6 Project Impacts

Mineral Resources
Would the Project:

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

The City contains no known mineral resources. According to the California Department of Conservation, the planning area is designated as MRZ-3, which represents areas where development has limited the ability to determine the presence or amount of mineral resources. The current General Plan does not designate any land in the City for mineral resources. The proposed General Plan Land Use Plan does not designate any land for mineral production or conversion from mineral resources to a different land use. The proposed General Plan, therefore, would not result in the loss of availability of a known mineral resource.

Future development and redevelopment facilitated by the proposed General Plan Update would increase the demand for sand and gravel resources for roadways, infrastructure, and building construction. These resources could be derived from the regional Coachella Valley market, but the demand for sand and gravel resources would not be considered significant when compared to available regional resources. As discussed above, PCC-grade aggregate reserves in the Palm Springs Production-Consumption Region are projected to be enough to meet future demand in the region through the year 2038. Thus, the potential loss of availability of these local resources due to future development in the planning area would result in a less than significant impact. Adherence to Goal 1 of the Energy and Mineral Resources Element, and its associated policies, would further reduce the potential for significant impacts; no mitigation is required.

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

The planning area does not contain a locally important mineral resource recovery site, and none are delineated on the current General Plan, a specific plan, or other land use plan. No impact would occur.

Nonetheless, as a long-range planning document, the proposed General Plan Energy and Mineral Resources Element establishes Goal 1, which requires the City to use mineral resources appropriately to assure that both limited and renewable resources are sustainable in the long-term. This would minimize potential impacts to mineral resources that could be identified in the future.

Energy
Would the Project:

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

When compared to the current General Plan, the Proposed Project would result in an overall increase in housing units, commercial square footage, and industrial square footage (See Section 1.9 Proposed Project for details). The development of these increased land use densities would also contribute to the need for additional energy supplies (i.e., natural gas, electricity). However, due to efficiencies in land use planning, the Proposed Project will reduce overall vehicle miles traveled (VMT) at buildout. This VMT reduction is primarily due to a reduction in trip generation, combined with a shift in the relationship between residential and non-residential uses.

The annual demand for electricity (in kWh), natural gas (in therms), and transportation fuel (gasoline and diesel, in gallons), was estimated for the 2040 General Plan and is presented below in Tables 2.7-3 and 2.7-4.

Table 2.7-2
Energy Consumption Factors

Land Use	Electricity	Natural Gas	Vehicle Fuel Economy
Single Family Residential	8,717 kWh/unit/year	306 therms/unit/year	24 MPG[1]
Multi-Family Residential	4,568 kWh/unit/year	148 therms/unit/year	
Retail/Commercial	12.63 kWh/SF/year	0.02 therms/SF/year	
Office/Business Park	9.91 kWh/SF/year	0.03 therms/SF/year	
Industrial	10.15 kWh/SF/year	0.32 therms/SF/year	

Source: CalEEMod Version 2016.3.2 Outputs, see Appendix B of this DEIR. Assumptions based on unit inputs and energy outputs.
1. U.S. EPA Automotive Trends Report. Average MPG from 2012-2017. Assumes a mix of gasoline and diesel consumption. www.epa.gov.

Table 2.7-3
Annual Electricity Demand at General Plan Buildout

Land Use	Existing Land Use Plan	Proposed Land Use Plan
Single Family Residential	222,732,000 kWh/year	216,326,000 kWh/year
Multi-Family Residential	130,180,000 kWh/year	136,104,000 kWh/year
Retail/Commercial	172,420,000 kWh/year	165,660,000 kWh/year
Office/Business Park	48,275,900 kWh/year	64,470,700 kWh/year
Industrial	96,987,000 kWh/year	114,455,000 kWh/year
TOTAL	**670,594,900 kWh/year**	**697,015,700 kWh/year**

Source: CalEEMod Version 2016.3.2 Outputs, see Appendix B of this DEIR.

Table 2.7-4
Annual Natural Gas Demand at General Plan Buildout

Land Use	Existing Land Use Plan	Proposed Land Use Plan
Single Family Residential	7,818,230 therms/year	7,593,350 therms/year
Multi-Family Residential	4,216,310 therms/year	4,408,190 therms/year
Retail/Commercial	303,066 therms/year	291,184 therms/year
Office/Business Park	142,246 therms/year	189,964 therms/year
Industrial	3,104,540 therms/year	3,663,680 therms/year
TOTAL	**15,584,392 therms/year**	**16,146,368 therms/year**

Source: CalEEMod Version 2016.3.2 Outputs, see Appendix B of this DEIR.

Table 2.7-5
Annual Fuel Demand at General Plan Buildout

	VMT per Day	Annual Fuel Consumption
Existing Land Use Plan	7,346,153	111,722,744 gallons gas/diesel
Proposed Land Use Plan	7,257,944	110,381,232 gallons gas/diesel

Source: Cathedral City General Plan Update Transportation Analysis, see Appendix E of this DEIR.

Implementation of policies, programs, and reduction strategies in the 2040 General Plan would assist in minimization of energy consumption associated with development. Policies 1 through 6 of the Energy and Mineral Resources Element were designed to encourage conservation of energy and usage of local wind, solar and other renewable resources. Policy 2, specifically, aims to minimize vehicle travel miles through the efficiencies in the circulation system and City's land use pattern. As shown in Table 2.7-5, above, the increased land use efficiencies of the Proposed Project would have a positive impact on reducing overall VMTs and thus reducing fuel demand.

In addition, the City would ensure that future CEQA documentation be prepared for individual projects (with project-specific data), as needed, that would specifically mitigate any potential energy impacts to a less-than-significant level. This impact is considered less than significant because the proposed 2040 General Plan would implement a number of policies designed to minimize wasteful, inefficient, or unnecessary consumption of energy. Mitigation Measures ME-1 through ME-6 will ensure impacts related to energy efficiency are less than significant.

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

Future development facilitated by the proposed General Plan Update would be evaluated on a project-by-project basis to assure it is designed, built, and operated in accordance with all applicable energy-related regulations, including energy efficiency and conservation standards. Such regulations and standards include the California Building Code, California Green Building Code, and potentially more stringent future regulations.

The General Plan Update will not interfere with any state or local plan that promotes renewable energy or energy efficiency. The General Plan itself includes Policy 1 of the Energy and Mineral Resources Element, which encourages energy conservation in new development and the City's transportation system. Policy 4 supports the City's participation in local and regional efforts to develop and operate alternative energy systems that take advantage of local wind, solar, and other renewable resources. Policy 6 encourages the City to explore and update policies that increase energy efficiency and the use of alternative sources for the economic, environmental, and social benefit of the City.

The General Plan Update will not interfere with any state or local plan that promotes renewable energy or energy efficiency. No impact would occur.

2.7.7 Mitigation Measures

The policies and programs of the Energy and Mineral Resources Sub-Element and the Air Quality and Climate Stability Element will ensure that the use of energy and mineral resources in the City is as efficient and possible. As a result, impacts to energy and mineral resources from implementation of the General Plan are expected to be less than significant. Nonetheless, the following measures will serve to avoid, minimize and mitigate potential impacts to mineral and energy resources.

ME-1 The City shall require new developments to reduce energy consumption through appropriate building technologies, promotion of non-auto transportation modes, support for greater use of alternative energy sources, and dissemination of public information regarding energy conservation techniques.

ME-2 The City shall work with utility providers to provide incentives for energy- and water-efficient building projects, e.g. by giving green projects priority in plan review, processing, and field inspection services.

ME-3 The City shall develop or otherwise make available information to developers on energy efficient and conserving building design and technologies, addressing enhanced wall and ceiling insulation, thermally efficient glazing, and efficient heating and cooling equipment and household appliances.

ME-4 The City shall periodically assess the local transportation system and plan or maintain improvements that enhance the efficient movement of people and goods through the community.

ME-5 The City shall continue to participate in the transportation planning efforts of SunLine Transit Authority and shall encourage the expanded use of public transit, vehicles fueled by compressed natural gas and hydrogen, buses with bike racks and other system improvements that enhance overall transportation system operations and energy conservation.

ME-6 The City shall strive for efficient community land use and transportation planning and design, and shall assure the provision of convenient neighborhood shopping, medical and other professional services appropriately located to minimize travel and facilitate the use of alternative means of transportation.

2.7.8 Significance After Mitigation

There will be less than significant impacts on energy and mineral resources, and no additional mitigation is required.

2.7.9 Cumulative Impacts

Mineral Resources
The cumulative impacts of the proposed General Plan Update on mineral resources are evaluated based on the potential impacts of other past, present, and future development in the surrounding area. Future development and redevelopment facilitated under the General Plan Update would contribute incrementally to increased demand for construction aggregate in the region. However, PCC-grade aggregate reserves in the Palm Springs Production-Consumption Area are projected to be sufficient to meet future demand in the region through the year 2038. Therefore, the loss of mineral resources due to the buildout of the proposed General Plan Update planning area would not be cumulatively significant.

Energy

As the City continues to grow, the demand for energy resources will also continue to increase. The cumulative impacts of the proposed General Plan Update on energy resources are evaluated based on the potential impacts of other past, present, and future development in the surrounding area. Although the energy required to serve the planning area will contribute to the continued consumption of locally and regionally generated energy resources, the General Plan requires the City to participate in energy conservation and efficiency initiatives and practices. The contribution of the proposed General Plan Update will not be cumulatively considerable.

2.8 Geology and Soils

2.8.1 Introduction

This section of the EIR describes existing geology and soils within the General Plan area and analyzes the potential impacts of the Cathedral City General Plan update on regional and local geology and soils. A wide range of data and information, from research and analysis conducted for the City to regional-scale planning and environmental documents, has been used in researching and analyzing the General Plan update and its potential effects. These include detailed analysis of regional and local geology, tectonics, soils, and seismicity conditions, as well as analysis of anticipated future conditions.

2.8.2 Thresholds of Significance

Thresholds of Significance

Based upon Appendix G of the CEQA Guidelines, the proposed Cathedral City General Plan update would cause significant impacts to soils and/or geological conditions if it would:

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

   i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.
   ii) Strong seismic ground shaking?
   iii) Seismic-related ground failure, including liquefaction?
   iv) Landslides?

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

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

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

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

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

2.8.3 Regulatory Framework

State

Alquist–Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. In accordance with this act, the State Geologist established regulatory zones called “earthquake fault zones” around the surface traces of active faults and published maps showing these zones. Earthquake fault zones are designated by the California Geological Survey (CGS) and are delineated along traces of faults where mapping demonstrates surface fault rupture has occurred within the past 11,000 years.

Construction within these zones cannot be permitted until a geologic investigation has been conducted to prove that a building planned for human occupancy will not be constructed across an active fault. These types of site evaluations address the precise location and recency of rupture along traces of the faults and are typically based on observations made in trenches excavated across fault traces.

Seismic Hazards Mapping Act

Like the Alquist-Priolo Act, the Seismic Hazards Mapping Act of 1990 (Public Resources Code Sections 2690 to 2699.6) is intended to reduce damage resulting from earthquakes. While the Alquist-Priolo Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, including strong ground shaking, liquefaction, and seismically-induced landslides. Its provisions are similar in concept to those of the Alquist-Priolo Act; the State is charged with identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides, and other corollary hazards. Cities and counties are required to regulate development within mapped Seismic Hazard Zones.

Under the Seismic Hazards Mapping Act, permit review is the primary mechanism for local regulation of development. Specifically, cities and counties are prohibited from issuing development permits for sites within Seismic Hazard Zones until appropriate site-specific geologic and/or geotechnical investigations have been conducted and measures to reduce potential damage have been incorporated into the development plans.

California Building Code (CBC)

The CBC has been codified in the California Code of Regulations (CCR) as Title 24, Part 2. Title 24 is administered by the California Building Standards Commission, which, by law, is responsible for coordinating all building standards. Under state law, all building standards must be centralized in Title 24 or they are not enforceable. The purpose of the CBC is to establish minimum standards to safeguard the public health, safety, and general welfare through structural strength, means of egress facilities, and general stability by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all building and structures within its jurisdiction.

The 2016 CBC incorporates the adaptation of the 2015 International Building Code (IBC) by the International Code of the International Code Council with necessary California amendments. It also contains California amendments based on the American Society of Civil Engineers (ASCE) Minimum Design Standards 7-05. ASCE 7-05 provides requirements for general structural design and includes means for determining earthquake loads as well as other loads (such as wind loads) for inclusion into building codes. The provisions of the CBC apply to the construction, alteration, movement, replacement, and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures throughout California.

Regional and Local

Cathedral City General Plan

The City's General Plan Geotechnical Element addresses the issue of protection of people and property from risks associated with natural disasters, e.g., fires, floods, and earthquakes. The element contains numerous policies that address safety from hazards such as groundshaking, slope instability, liquefaction, and subsidence.

> **Policy 1**: The City shall establish and maintain an information database containing maps and other information which describe seismic and other geotechnical hazards occurring within the City boundaries, sphere-of-influence and planning area.
>
> **Policy 2:** Continue to regularly update building and fire codes to provide for changes or advancements in seismic safety design.

Policy 3: All new development shall be constructed in accordance with the prevailing seismic design requirements contained in the most recently adopted edition of the Uniform Building Code/International Building Code and as otherwise required by the City.

Policy 4: The City shall require geological and geotechnical investigations in areas of potential seismic or geologic hazards as part of the environmental and development review process. The City shall not approve proposals and projects for development or redevelopment which do not provide for mitigation of seismic or geologic hazards to the satisfaction of the responsible agencies.

Policy 5: Promote and encourage the strengthening of older, inadequately reinforced structures in the City by retrofitting to better resist the effects of strong ground shaking.

Policy 6: The City shall encourage the strengthening of such critical public facilities such as utilities, schools, hospitals, healthcare facilities, eldercare facilities, police and fire stations, and emergency communication facilities.

Policy 7: To the extent feasible, regulate the location of new structures, including utilities, schools, hospitals, healthcare and eldercare facilities, police and fire stations, and emergency communication facilities, within areas that would directly be affected by seismic or geologic hazards.

Policy 8: Development proposed for human occupancy on lands within a City Fault Hazard Management Zone and where the location of the fault is firmly determined, fault trenching and other geotechnical investigations shall be required. Based on these investigations the City may restrict or prohibiting construction of structures for human occupancy across the fault trace.

Policy 9: Where development is proposed in areas identified as being subject to geotechnical hazards (including, but not limited to slope instability, soil collapse, liquefaction and seismically induced settlement), the City shall require the preparation of site-specific geotechnical investigations by the applicant prior to completion of CEQA studies and development approval. All such studies shall include mitigation measures that reduce associated hazards to insignificant levels.

Policy 10: To avoid and minimize soil erosion, all grading, earthwork, and construction activities shall be in accordance with applicable fugitive dust control ordinances and regulations, including those established by the City, CVAG, SCAQMD, and other appropriate agencies.

Policy 11: To minimize the potential impacts of subsidence due to the extraction of groundwater, the City shall actively support and participate in local and regional efforts at groundwater conservation and recharge.

Policy 12: Restrict development along the foothills to minimize the potential impacts of slope failure. In addition, minimize grading and modification to the natural topography to prevent potential for man-induced slope failures.

Policy 13: The City Shall ensure to the fullest extent possible that, in the event of a major geologic disaster, dependent care and high-occupancy facilities will remain safe.

Policy 14: The City's Fire Department, as part of their annual review of businesses and dependent care facilities, shall encourage and educate the owners or operators about maintaining accessibility following and earthquake, emergency backup power, and securely anchored shelves, computers and other equipment, and other non-structural elements.

2.8.4 Regional Environmental Setting

Regional Geology

The City of Cathedral City is located in the Coachella Valley which lies Colorado Desert Geomorphic Province.[1] This province consists of a low-lying barren desert basin, about 245 feet below sea level in part, and is dominated by the Salton Sea. The province is a depressed block between active branches of the alluvium-covered San Andreas Fault with the southern extension of the Mojave Desert on the east. It is characterized by the ancient beach lines and silt deposits of extinct Lake Cahuilla.

Tectonically, the Coachella Valley is a deep fault graben formed by tectonic movement along the San Andreas Fault (SAF) (Exhibit 2.8-1).[2] The SAF is a complex strike-slip fault that represents a continuous zone of faulting from Point Mendocino in northern California to the Salton Sea and into the Sea of Cortez. It is more correctly referred to as a fault "zone", and the motion accommodated by the fault zone is distributed along a complex system of interrelated faults.[3]

The Coachella Valley is bounded by the Little San Bernardino Mountains on the north and northeast, and the Santa Rosa and San Jacinto Mountains on the southwest and west. Geologic materials of the San Bernardino Mountains to the northwest are mainly comprised of ancient basement rocks that have been uplifted to their current elevations. The southwestern and southeastern margins of the San Bernardino Mountains are traversed by several strands of the San Andreas Fault zone that are part of the geomorphic and structural boundary of the range. Together, the San Jacinto and Santa Rosa Mountains form the Peninsular Ranges Province and are classified as Mesozoic granite, which was first exposed about 95 million years ago. The San Jacinto Mountain Range is traversed by the San Jacinto Fault zone on its western margin.

The valley includes a diverse range of rocks and sediments formed or deposited over millions of years. Sediments from the surrounding mountain ranges are carried into and across the Coachella Valley through numerous seasonal streams flowing to the Whitewater River, San Gorgonio River and the Snow Creek, Chino Canyon, Tahquitz Canyon, Palm Canyon, Eagle Canyon, Mission, Big Morongo, and Little Morongo Creeks. The Whitewater River is the master drainage for the valley and flows northwest to southeast. Episodic flooding of major regional drainages, including the Whitewater River and Coachella Valley Stormwater Channels, results in the deposition of sand and gravel on the valley floor.

2.8.5 Existing Conditions

Soils and Surficial Rocks

The City's geologic composition is related to its proximity to the San Andreas Fault, which passes through the northern portion of the valley and northern city limits, and other active faults. The rocks and sediments exposed at the surface of the General Plan planning area can be classified as follows based on their age:

1) Mesozoic and older (66 million years old and older) rocks in the Santa Rosa Mountains,
2) Middle to Early Pleistocene (11,000 to 1.6 million years old) sediments on Edom Hill, Flat Top Mountain, and the northwestern portion of the planning area, and
3) Holocene (0-11,000 years old) sediments on the valley floor.

Metasedimentary Rocks: The oldest rocks reported within the planning area are Cretaceous and pre-Cretaceous metamorphic rocks of sedimentary and volcanic origin. They are limited to the slopes of the Santa Rosa Mountains and typically are non-water-bearing, except where they are extensively jointed and fractured.

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1 Geological Gems of California State Parks - Geogem Note 53 (Colorado Desert Geomorphic Province).
2 Alles, D. L. (2012). Geology of the Salton Trough.
3 Hill, M. L., & Dibblee, T. W. (1953). San Andreas, Garlock, And Big Pine Faults, California: A Study of the Character, History, and Tectonic Significance of Their Displacements. Geological Society of America Bulletin, 64(4), 443-458.

Alluvial Sediments: The most recently deposited sediments in the planning area are found on the wash, fan and valley alluvial areas where water transports and processes these unconsolidated sandy and gravelly materials of Late Holocene age. Some are moderately loose sand and silty sand, boulder, cobble, gravel, sand, and silt deposits eroded from the confined valley or canyons. They are found in the southern and northern portion of the planning area along the Santa Rosa Mountains and Flat Top Mountain southwest of Edom Hill. Other deposits are comprised of clay, silt, sand, and gravel and are found in the central planning area mainly along the Whitewater River, and the Salvia and Morongo Washes south of the Indio Hills and the Cathedral Canyon drainages at the base of the Santa Rosa Mountains. They also occur north of the Indio Hills.

Alluvial plain sediments are typically loose near the ground surface but become denser with increasing depth. They have medium to high permeabilities, except where silt layers retard the percolation of water. Because these units can be readily compacted with a combination of saturation and wheel rolling with rubber-tired construction equipment, they are generally suitable for use as compacted fill. Shrinkage of 20% to 30% can be expected upon compaction. Alluvial fan sediments, which are dry with higher permeabilities, are also generally suitable for use as compacted fill. Compaction of the near-surface soils can be expected to result in up to 15% shrinkage.

The majority of the City is composed of alluvium which has low potential to contain unique paleontological resources.

Aeolian and Dune Deposits: These medium-grained soils are picked up and transported by strong winds emanating from the San Gorgonio Pass at the northwesterly edge of the Coachella Valley. These deposits are unconsolidated, generally well-sorted windblown (aeolian) sand which also occur as dune sand deposits. They are redistributed along the central valley floor where they form shifting sand dunes. A thick accumulation of these windblown sands has formed the Palm Springs Sand Ridge that arises in Cathedral City and, in some places, rises up to 120 feet above the valley floor. Windblown deposits underlie much of the developed portion of the planning area and sheltered portions of lands north of I-10.

Aeolian deposits are typically loose near the ground surface but become denser with increasing depth. Like alluvial deposits, they are generally suitable for use as compacted fill, as they can be readily compacted with a combination of thorough wetting and wheel rolling with rubber-tired construction equipment. These units typically have high permeabilities, and shrinkage of up to 30% can be expected upon compaction.

GEOLOGIC HAZARDS

Slope Instability

Two areas within the General Plan planning area have a moderate to high susceptibility to rock falls and land-sliding: 1) land adjacent to the Indio Hills, and 2) slopes of the Santa Rosa Mountains. The metasedimentary and intrusive rocks of the slopes of the Santa Rosa Mountains have several planes of weakness, including joints, fractures, and foliation. Depending on their orientation, these areas could be susceptible to failure. Additionally, as these rocks weather, they can form rounded boulders that perch precariously on steep slopes and pose rock fall hazards down slope. Areas with surface soils comprised of sands and other less cohesive soils, and located on sloping terrain, can be subject to sliding during strong ground shaking.

Earthquake-induced landslides and rock falls may occur in both the Indio Hills and Santa Rosa Mountains and are addressed in subsequent sections of this chapter. Mitigation of these hazards is best accomplished by avoiding development on steep slopes and implementing structural setbacks at the toe of slopes. Any proposed development adjacent to steep slopes of the Santa Rosa Mountains or Indio Hills should include an analysis for potential slope instability. Areas of potential slope instability are shown on Exhibit 2.8-1.

Collapsible Soils

Soil collapse, or hydro-consolidation, occurs when soils undergo a rearrangement of their grains and a loss of cementation, resulting in substantial and rapid settlement under relatively low loads. This phenomenon typically occurs in recently deposited Holocene soils in a dry or semi-arid environment, including aeolian sands and alluvial fan and mudflow sediments deposited during flash floods. The combination of weight from a building or other structure, and an increase in surface water infiltration (such as from irrigation or a rise in the groundwater table) can initiate rapid settlement and cause structural foundations and walls to crack.

Alluvial and aeolian sediments in the planning area have the potential for collapse. Where development is proposed on these soils, this hazard should be evaluated as part of site-specific geotechnical evaluations, and recommendations should be made to mitigate the potential hazard. These studies should include analysis of the settlement potential of the entire soil column to the effective depth of infiltration of irrigation water, rather than only the near-surface soils. Additional recommendations that can mitigate these impacts include pre-watering of susceptible soils to induce collapse prior to construction, designing drainage to flow away from structures, avoiding open-bottomed planters adjacent to structures, using roof gutters to direct drainage away from foundations, and limiting the use of irrigation water.

Expansive Soils

Expansive soils contain significant amounts of clay particles and have the ability to give up water (shrink) or take on water (swell). When swelling occurs, the soils can exert significant pressure on structures (e.g. buildings, channel linings and other structures) built upon them and can result in structural and other damage. Surface soils in the planning area are generally described as predominantly sand, riverwash gravels, and rock outcrop, with the relatively minor amounts of clay. Minor amounts of clay present in the planning area are not considered a hazard to development in the planning area. The older fan deposits of the Indio Hills may contain clay-rich soils near the surface; however, these units are typically removed and recompacted during grading. Mixing of soils during this process is expected to reduce their expansion potential.

Ground Subsidence

Ground subsidence is the gradual settling or sinking of the ground surface with little or no horizontal movement, and is usually associated with the extraction of oil, gas, or groundwater. During this process, fluids (including water) and gases contained in subsurface clay layers are squeezed or pumped out, and the clay is compacted by the weight of overlying sediments. Subsidence can result in damage to structures that are sensitive to slight changes in elevation, such as larger buildings and foundations, canals and channel lining, and wells. Subsidence can also result in changes to surface drainage, reductions in aquifer storage capacity, and the formation of earth fissures.

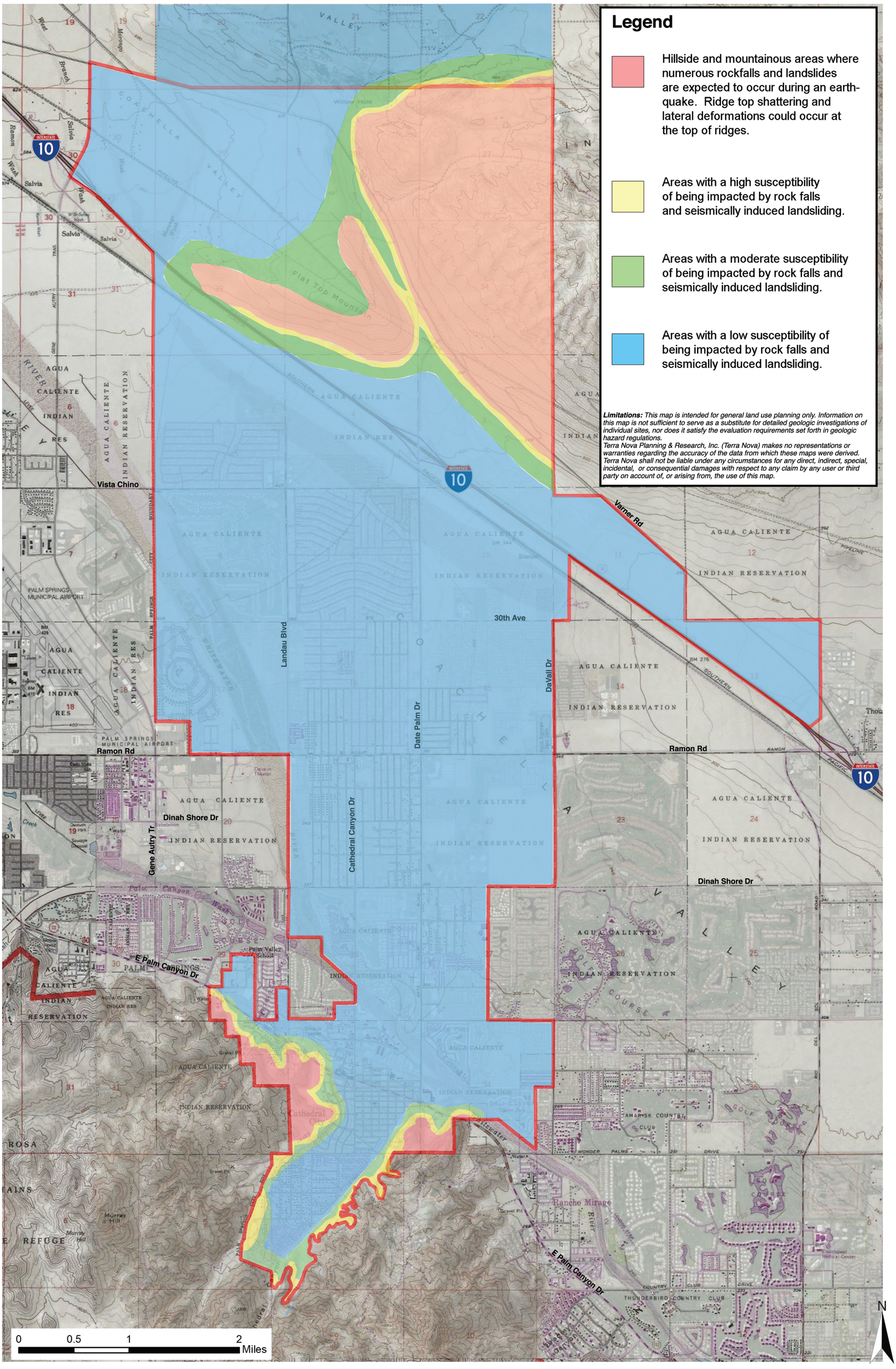
Subsidence as a result of groundwater withdrawal is one of the major environmental constraints facing the Coachella Valley, although most evidence of regional subsidence has been observed in the eastern Coachella Valley in Palm Desert, Indian Wells, and La Quinta. Since the late 1970s, the regional demand for groundwater has exceeded the supply, and the groundwater basin in the Coachella Valley is currently in a state of overdraft. Continued overdraft of the aquifer would result in declining groundwater levels, thereby increasing the potential for associated subsidence. It should be noted that the regional groundwater managers, including CVWD and DWA, have been proactive in securing and importing water to recharge the aquifer. It is hoped that the ongoing overdraft condition will end by the early 2020s.

Wind Erosion

Wind funneling through the San Gorgonio Pass picks up sands and silts from the alluvial plain and washes and carries them across the valley floor, sorting these materials into various grades of coarseness. Wind erosion is a serious environmental problem in the valley often resulting in soil degradation, damage to cars and structures, and contributing to poor air quality.

As shown in Exhibit 2.8-2, most of the General Plan planning area is located within *very severe* and *severe* wind erosion hazard zones. While winds may be strong across all portions of the City, it is the silty and light sandy soils that are most erosive. Land development and other sources of soil destabilization directly and indirectly aggravate soil erosion by removing the stabilizing crust of undisturbed soils and destroying vegetation.

Pursuant to California Government Code Section 65302(d)(2), the General Plan is required to incorporate policies to prevent soil erosion and protect the community from its effects. For Cathedral City, mitigation of this hazard has required the development and implementation of multi-faceted dust control plans during and following development. Please see Section 2.4, Air Quality and Greenhouse Gases, for more information on City and regional dust control measures.



Source: Esri, USGS, 2018; Earth Consultants International, 2001

06.21.18

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City of Cathedral City General Plan EIR
Rock Fall and Landslide Susceptibility Map
Cathedral City, California

Cathedral City

Exhibit
2.8-1

Moderate

Severe

Slight

Slight

Very Severe

Severe

Severe

Moderate

Slight

Slight

Legend

VERY SEVERE WIND EROSION HAZARD: areas exposed to erosive winds where soils show very distinct evidence of wind removal and/or accumulation forming dunes more than 48 inches high.

SEVERE WIND EROSION HAZARD: areas exposed to erosive winds where soils show distinct evidence of wind removal and/or accumulation in hummocks 24 to 48 inches high.

MODERATE WIND EROSION HAZARD: areas partially protected from erosive winds where soils show evidence of wind removal and/or accumulation in hummocks up to 48 inches high, and all areas with fine- to medium-grained soils that are protected from wind erosion.

SLIGHT WIND EROSION HAZARD: bedrock areas and areas where the soils are coarse-grained and show no evidence, or slight evidence, of soil removal or accumulation (no shading).

Limitations: *This map is intended for general land use planning only. Information on this map is not sufficient to serve as a substitute for detailed wind hazard investigations of individual sites, nor does it satisfy the evaluation requirements set forth in wind hazard regulations.*
Terra Nova Planning & Research, Inc. (Terra Nova) makes no representations or warranties regarding the accuracy of the data from which these maps were derived. Terra Nova shall not be liable under any circumstances for any direct, indirect, special, incidental, or consequential damages with respect to any claim by any user or third party on account of, or arising from, the use of this map.

Vista Chino
Ramon Rd
Dinah Shore Dr
E Palm Canyon Dr
Varner Rd
30th Ave
Landau Blvd
Date Palm Dr
Cathedral Canyon Dr
DaVall Dr
Gene Autry Tr
Rancho Mirage

0 0.5 1 2 Miles

N

06.21.18 Source: Esri, USGS, 2018; Earth Consultants International, 2001

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City of Cathedral City General Plan EIR
Wind Hazards Map
Cathedral City, California

Cathedral City

Exhibit
2.8-2

REGIONAL TECTONIC SETTING

Cathedral City is located along the southern segment of the San Andreas Fault Zone, an active fault zone that has the greatest influence on seismic hazards in the City and valley. The San Jacinto Fault Zone west of and at the foot of the San Jacinto Mountains also has the potential to generate strong ground shaking in the City. Other numerous earthquake-producing faults in the region include the Pinto Mountain Fault to the north, faults in the Eastern California Shear Zone (including the Burnt Mountain, Eureka Peak, and Pisgah-Bullion Mountain-Mesquite Lake faults), and the Elsinore Fault to the west. Faults that have not shown movement within the past 11,000 years are considered "inactive."

The San Andreas Fault passes through the northern portion of the City and is capable of generating magnitude 8.0+ earthquakes. A portion of faults in this area are within the Alquist-Priolo Earthquake Fault Zone and Riverside County-designated fault zone hazard maps. The network of the faults in the City is shown in Exhibit 2.8-3 and discussed below.

San Andreas Fault Zone

The San Andrea Fault Zone consists of northwest-southeast trending faults and folds that extend from the Salton Trough and the Sea of Cortez on the southeast, northward to approximately Point Mendocino. This fault zone is approximately 800 miles in length. In southern California, the San Andreas fault system is comprised of three segments: 1) Mojave Desert segment, 2) San Bernardino Mountains segment, and 3) Coachella Valley segment.[4]

Currently, portions of the Coachella Valley segment fault are located within Alquist-Priolo Earthquake Fault Zone. The Coachella Valley segment crosses the General Plan planning area. It consists of two fault strands: the San Andreas Fault strand (also known as the North Branch or Mission Creek fault) which occurs north and east of the planning area; and the Banning Fault strand (also known as the South Branch fault) which extends across the northern portion of planning area.

The two strands merge southeast of the planning area, near Indio, and continue southeastwardly toward the United States-Mexico border. Paleoseismic studies that include fault trenching indicate that the last surface-rupturing earthquake on the Coachella Valley segment occurred around 1680. Prior to this, earthquakes on this fault occurred at an average recurrence interval of every 220± years. The merged segment is creeping at a rate of about 25 mm/year (±5 mm/year), has more than a 22% probability of rupturing before the year 2024, and is expected to generate earthquakes with a magnitude of 6.0-7.0 on the Richter scale.

The Banning Fault of the Coachella Valley segment, which passes through the planning area, is capable of producing a magnitude 7.4 earthquake that would result in peak horizontal ground accelerations of between 0.45 and 0.9g in Cathedral City. Within the planning area, it consists of several splays that branch off from one another, then come together. In the vicinity of the Edom Hill Landfill (now closed), just east of the planning area, the fault consists of one main fault and at least three secondary splays. The Banning Fault is believed to have been responsible for generating the magnitude 5.9 North Palm Springs earthquake in 1986. Although the ground surface did not rupture during this quake, ground fractures occurred on the northern side of the fault, between Whitewater Canyon and State Highway 62.

The Mission Creek fault is capable of generating a magnitude 7.1 earthquake, with resultant peak ground accelerations of between 0.4 and 0.8g in the City. Geotechnical studies in the Desert Hot Springs area have documented several breaks that can be traced upward to within one foot of the ground surface. It is estimated that the City would be susceptible to ground accelerations greater than 1.0g during a simultaneous rupture of the Banning and Mission Creek faults.

[4] Natural Hazard Mapping, Analysis, and Mitigation: a Technical Background Report in Support of the Safety Element of the New Riverside County 2000 General Plan, prepared by Earth Consultants International, August 2000.

The Coachella Valley segment joins the San Bernardino Mountains segment to the northwest of the planning area, near the northwestern limits of the City of Desert Hot Springs. The San Bernardino Mountains segment has a slip rate of about 24± mm/year (±5 mm/year), with an average recurrence interval of 146 years. It is estimated that this segment has a 28% probability of rupturing before year 2024.

Garnet Hill Fault

The Garnet Hill fault is mapped as a buried fault and is based on a gravity anomaly survey of the Coachella Valley by a major oil company.[5] The Garnet Hill fault is not mapped as offsetting Holocene- age materials[6] and, therefore, does not display evidence of being active.[7] The fault can act as a plane of weakness and move in response to an earthquake on another nearby fault.

Although the California Division of Mines and Geology (California Geological Survey) has not designated it as an active fault subject to fault study, Riverside County has designated the Garnet Hill fault for further study. The Garnet Hill fault extends from the vicinity of Whitewater Canyon to the southeast portion of Edom Hill where it crosses the planning area near and north of I-10 and dies out.[8] This fault is primarily a right-lateral strike-slip fault along most of its trace, but splays into a series of oblique reverse faults at its western end. It consists of a series of left-stepping, northwest-trending right-lateral faults with active folds at each stepover.[9] The discontinuous geometry of the Garnet Hill fault and the small size of these folds suggest that cumulative slip is too low to have led yet to integration of the fault into a single strand. The slip rate of the Garnet Hill fault has not yet been determined.

The Garnet Hill fault and the Coachella Valley segment of the Banning fault merge at a depth of about 5 km to form a single fault and merge with the San Gorgonio Pass fault system.[10] Seismological data also suggest that the Garnet Hill fault merges with the San Gorgonio Pass fault zone to carry slip between the disconnected segments of the San Andreas fault, thus making the Banning-Garnet Hill-San Gorgonio Pass system a significant seismic source in the region. Based on the seismic pattern, it is interpreted that the M5.9 1986 North Palm Springs earthquake main shock and aftershock sequences occurred on the Banning strand[11]; however, the main event occurred on the linked San Gorgonio Pass-Garnet Hill-Coachella Valley Banning fault.[12] The Garnet Hill fault has been mapped by the County of Riverside and referred to as County Fault Zone.[13] The County applies Alquist-Priolo Earthquake Fault Zoning Act provisions to the Garnet Hill fault to minimize potential impacts.

5 Geology of the Desert Hot Springs-Upper Coachella Valley area, California, California Division of Mines and Geology Special Report 94, 50 (1968). by Richard J. Proctor.

6 Jennings, C.W. 1994. Fault Activity Map of California and Adjacent Areas with Locations and Ages of Recent Volcanic Eruptions: California Division of Mines and Geology, Geologic Data Map No.6, Scale 1:750,000.

7 Hart, E.W., Smith, D.P., and Saul, R.B. 1979. Summary Report: Fault Evaluation Program, 1978 Area (Peninsular Ranges-Salton Trough Region): California Division of Mines and Geology, Open File Report 79-10.

8 Holocene geologic slip rate for the Banning strand of the southern San Andreas Fault, southern California by Gold et al., 2015.

9 Complexities of the San Andreas fault near San Gorgonio Pass: Implications for large earthquakes, by Yule and Sieh (2003).

10 Ibid.

11 Jones, L. M., L. K. Hutton, D. D. Given, and C. R. Allen (1986), The North Palm Springs, California, earthquake sequence of July 1986, Bull. Seismol. Soc. Am., 76, 1830–1837.

12 Ibid.

13 County of Riverside General Plan (2004)-Safety Element.

SAN ANDREAS FAULT ZONE

MISSION CREEK FAULT

BANNING BRANCH FAULT

GARNET HILL FAULT

Varner Rd

UPRR

Vista Chino

30th Ave

Ramon Rd

Dinah Shore Dr

E Palm Canyon Dr

Landau Blvd

Date Palm Dr

DaVall Dr

Gene Autry Tr

Cathedral Canyon Dr

INTERSTATE 10

Circle B Ranch

Seven Palms Ranch

Edom Hill

Rancho Mirage

Cathedral City

PALM SPRINGS MUNICIPAL AIRPORT

AGUA CALIENTE INDIAN RESERVATION

COACHELLA VALLEY

INDIO HILLS

Legend

FAULT LINES

Fault Type Not Defined

FAULT TYPE

Inferred Fault

Accurate Fault

Fault, Approx. Loc.

Concealed Fault

FAULT ZONES

ALQUIST-PRIOLO

RIVERSIDE COUNTY

City Limits

Limitations: *This map is intended for general land use planning only. Information on this map is not sufficient to serve as a substitute for detailed geologic investigations of individual sites, nor does it satisfy the evaluation requirements set forth in geologic hazard regulations. Terra Nova Planning & Research, Inc. (Terra Nova) makes no representations or warranties regarding the accuracy of the data from which these maps were derived. Terra Nova shall not be liable under any circumstances for any direct, indirect, special, incidental, or consequential damages with respect to any claim by any user or third party on account of, or arising from, the use of this map.*

0 0.5 1 2 Miles

N

Source: Esri, USGS, 2018; Gold, et. al., 2015.

08.02.18

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City of Cathedral City General Plan EIR
Earthqake Fault Map
Cathedral City, California

Cathedral City

Exhibit

2.8-3

San Jacinto Fault Zone

As noted, the San Jacinto Fault Zone extends from the City of San Bernardino, southeasterly toward the Brawley area, where it continues south of the U.S./Mexico border as the Imperial Fault. The fault is south of the planning area but has a high level of historic seismic activity, with at least ten moderate (M6> to 7>) earthquakes having occurred between 1890 and 1986, with an estimated recurrence interval of between 150 and 300 years.

Available data suggest that the slip rates of the fault's northern segments are about 12± mm/year (±6 mm/year), and slip rates of the southern segments are about 4± mm/year (±2 mm/year). The San Bernardino and San Jacinto Valley segments are estimated to have a 37% and 43% probability, respectively, of rupturing before the year 2024. Based on a maximum credible earthquake of magnitude 7.0 on the closest segment on this fault, such an event would generate horizontal ground acceleration of 0.1 to 0.25g in the City.

East Mojave Shear Zone

The East Mojave Shear Zone includes several northwest-trending faults in the southern Mojave Desert that collectively appear to be accommodating between 9% and 23% of the motion between the North American and Pacific tectonic plates. Paleoseismic studies indicate that several earthquakes have occurred in this area during the Holocene Epoch, including the 1992 Landers earthquake, which occurred on the Johnson Valley fault. A magnitude 7.3 earthquake on one of these fault segments is expected to generate a peak horizontal ground acceleration of between 0.1 and 0.15g (g is the acceleration of gravity, equal to 9.8 m/sec$^{2)}$ and a Modified Mercalli Intensity (MMI) seismic intensity of between VII and VIII in Cathedral City.

Pinto Mountain Fault

The Pinto Mountain fault is an east-trending fault that is traceable for approximately 47 miles, from its junction with the San Andreas fault eastward to just east of the City of Twentynine Palms, north of the planning area. The Pinto Mountain fault is considered active, and Holocene Epoch movement has been documented. The fault is capable of generating a maximum credible earthquake of 7.0, which would generate peak horizontal ground accelerations of between 0.15 and 0.3g in the General Plan planning area.

Seismic Activity in the Planning Area

California Government Code Section 65302(g)(1) requires that the General Plan incorporate policies to address seismic risks, avoid earthquake-caused ground-failure hazards, and protect the community from seismic hazards. Several faults present in the planning area are capable of generating strong ground shaking. Potential seismic intensities in the City and surrounding area associated the earthquakes are shown in Table 2.8-1 below.

Table 2.8-1
Potential Seismic Intensities Associated with the Maximum Credible Earthquake (MCE)

Fault Name	Distance to GP Area (miles)	Magnitude of MCE	Peak Ground Acceleration of MCE (g)*	MMI** from MCE
San Andreas				
Coachella Segment (south strand)	0 –9	7.4	0.459	X-XII
Coachella Segment (north strand)	1 – 10	7.1	0.435	X-XI
San Bernardino Mtns. Segment	4 – 11	7.3	0.332	IX-XI
Garnet Hill	0-6	7.0	0.17 – 0.70	VIII - XI
East Mojave Shear				
Burnt Mountain	7 – 14	6.4	0.201	VIII-IX
Eureka Peak	9 – 16	6.4	0.165	VII-IX
Landers	20 – 28	7.3	0.15-0.25	VI-IX
Lenwood-Lockhardt-Old Woman	34 – 40	7.3		VI-VII

Table 2.8-1
Potential Seismic Intensities Associated with the Maximum Credible Earthquake (MCE)

Fault Name	Distance to GP Area (miles)	Magnitude of MCE	Peak Ground Acceleration of MCE (g)*	MMI** from MCE
Camp Rock-Emerson-Copper Mtn	25 –32	6.9	0.06 - 0.11	V-VIII
Johnson Valley (northern)	30 – 38	6.7	0.10-0.15	V-VII
Pisgah-Bullion Mtn-Mesquite	31 – 37	7.1	0.05-0.10	V-VIII
Calico-Newberry-Hidalgo	35 – 43	7.1	0.05-0.15	IV-VIII
Helendale-S. Lockhardt	41 – 47	7.1	0.05-0.10	IV-VII
North Frontal Fault Zone	30 – 47	7.0	0.15-0.30	VIII-IX
Pinto Mountain	15 – 22	7.0	0.15-0.30	VIII-IX
San Jacinto				
Anza	17 – 24	7.2	0.135	VIII-IX
Coyote Creek	21 – 29	6.8	0.092	VI-VIII
San Jacinto (San Jacinto Valley)	25 - 29	6.9	0.09 - 0.10	VII-VII
Elsinore	40 – 47	7.1	0.05-0.10	V-VII

* Peak Ground Acceleration, where g is the acceleration of gravity, equal to 9.8 m/sec^2
** MMI = Modified Mercalli Intensity
Sources:
Table 3, "Geotechnical Engineering Update Report Environmental Impact Assessment Proposed 567 Acre Specific Plan Development Area of Varner Road and Bob Hope Drive, County of Riverside, California," RJR Engineering, June 2013.
Table 1-2, "Technical Background Report to The Safety Element of The General Plan for The City of Palm Springs, Riverside County, California," prepared by Earth Consultants International, Inc., September 2005.
Table 1-2, "Seismic, Geologic, and Flooding Sections of the Technical Background Report to the Safety Element of the General Plan for Cathedral City," prepared by Earth Consultants International, Inc., June 1999.

SEISMICALLY INDUCED GEOTECHNICAL HAZARDS

Liquefaction

Liquefaction is the total or substantial loss of shear strength of loose, sandy, saturated sediments in the presence of ground accelerations greater than 0.2g; note that g is the acceleration of gravity, equal to 9.8 m/sec^2. When liquefaction occurs, the sediments involved behave like a liquid. This phenomenon can result in structural stress and/or failure due to settlement, the buoyant rise of buried structures such as tanks and pipelines, the formation of mud spouts and sand boils, and seepage of water through ground cracks.

As shown on Exhibit 2.8-4, the potential for liquefaction to occur is low-to-none throughout most of the planning area, principally because groundwater in the Cathedral City area typically occurs 150 to 200 feet below the ground surface, too deep to saturate the loose sediments of the valley floor. Although depth to groundwater may be less than 50 feet adjacent to the Santa Rosa Mountains in the southern planning area, the alluvial sediments in this area are coarse-grained sand, gravels, cobbles, and boulders that are not susceptible to liquefaction.

The potential for liquefaction is moderate to high, however, in the northern portion of the planning area, in the vicinity of the San Andreas Fault. In this area, the fault acts as a barrier or dike to the flow of groundwater. This causes groundwater to rise along the fault and to occur at shallow depths at these locations, which are also typically boundaries between subbasins. Historically, springs and flowing wells have been observed at Willow Hole and areas just north of the planning area. During well drilling in 1981, groundwater was reported at depths of less than 30 feet northeast of Willow Hole. Given that groundwater occurs within 50 feet of the surface in this area, the unconsolidated alluvial sediments are highly susceptible to liquefaction. Shallow groundwater has also been reported along the northern side of the Banning Fault, but sediments in this area are semi-consolidated to consolidated and not as susceptible to liquefaction.

Seismically-Induced Settlement

Strong ground shaking can cause soils to become dense or to compact, resulting in local or regional settlement of the ground surface. Settlement can damage structures and foundations, as well as pipelines, canals, and other grade-sensitive structures. The potential for seismically induced settlement to occur is controlled by the intensity and duration of ground shaking and the density of subsurface soils.

As shown in Exhibit 2.8-5, the valley floor is mainly comprised of loose, recently deposited sediments and is highly susceptible to seismically-induced settlement. Development proposed in these areas should include subsurface geotechnical investigations that evaluate the potential for seismically-induced settlement. Proper foundation design and the densification or compaction of subsurface soils prior to development can mitigate some of the damaging effects associated with settlement.

Seismically-Induced Slope Instability

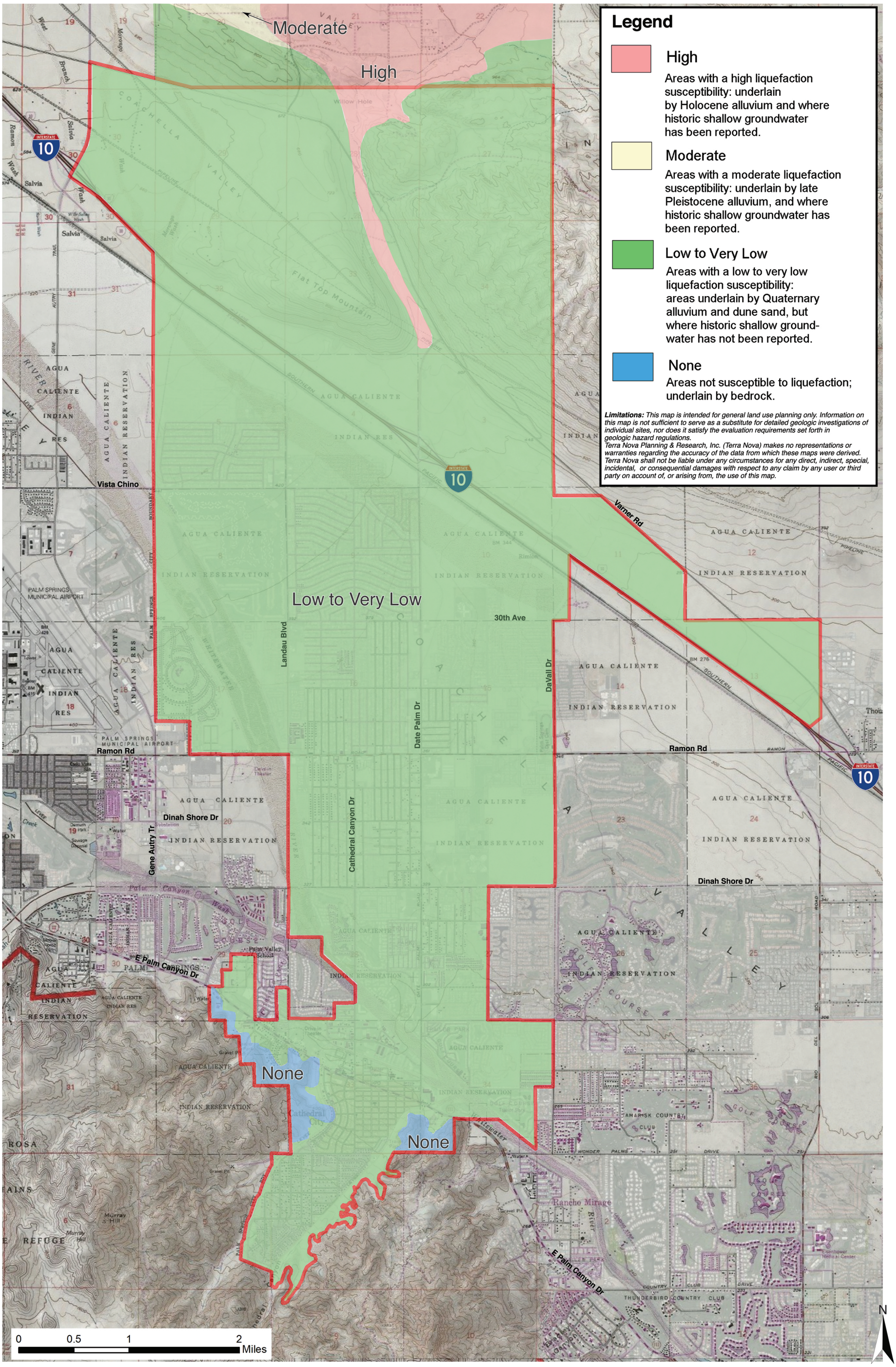
It is estimated that a ground acceleration of at least 0.10g in steep terrain is necessary to generate earthquake-induced rock falls. Given that several nearby faults are capable of generating peak ground accelerations of this magnitude in Cathedral City, there is a moderate to high potential for seismically-induced rock falls and landslides to occur in the General Plan planning area. Susceptible areas are shown on Exhibit 2.8-1 and include areas within and adjacent to the slopes of the Santa Rosa Mountains and Indio Hills, particularly where the bedrock of the Santa Rosa Mountains is highly fractured or jointed. As shown in Exhibit 2.8-1, nearly all of the areas with a moderate or high susceptibility to slope instability are currently undeveloped. The East and West Cathedral Canyon Washes act as a buffer between the slopes of the Santa Rosa Mountains and development in the Cove, and would be expected to absorb much of the potential damage from rock falls and provide some level of protection to existing habitable development.

Intense ground shattering can be expected at the top of Edom Hill and other narrow, steep ridges, where topographical features can localize and focus the ground shaking at the ridge top. Mitigation of these hazards can be best achieved by avoiding development on steep slopes and enforcing appropriate building setbacks at the base of the slopes. Even engineered cut and fill slopes constructed on the valley floor may be subject to failure if they are of sufficient height. These slopes must be designed to resist seismically-induced failure, and their design should be based on site-specific soil stability analyses that include subsurface soil sampling and laboratory testing.

Seiches

Seiche refers to the seismically-induced oscillation or sloshing of water contained in an enclosed basin, such as a reservoir, pond, water storage tank, or swimming pool. This hazard is dependent upon the frequency of seismic waves, distance and direction from the epicenter, and design criteria of the enclosed body of water. Although damage from small bodies of water, such as swimming pools, would be expected to be minor, damage to or failure of larger bodies of water, such as water tanks and retention basins could result in the inundation of land and structures downslope, hinder efforts to suppress fires, and limit the supply of potable water after a major earthquake.

The Desert Water Agency owns four water reservoirs on elevated terrain in the Santa Rosa Mountains surrounding and near the Cathedral Canyon Cove. Damage to and/or failure of these tanks could result in inundation of homes and property in these areas of the City. Two water reservoirs owned by the Coachella Valley Water District are located on the north edge of Flat Top Mountain just south of Varner Road in the northern portion of the planning area. Although land downgradient from these tanks is currently vacant, tank damage or failure could impact future development. Design elements, such as baffles and braces, are warranted to reduce the potential for seiches in tanks, open reservoirs, and ponds where overflow or structural failure may cause damage to nearby properties. The American Water Works Association (AWWA) Standards for Design of Steel Water Tanks includes updated criteria for the seismic design of water tanks.



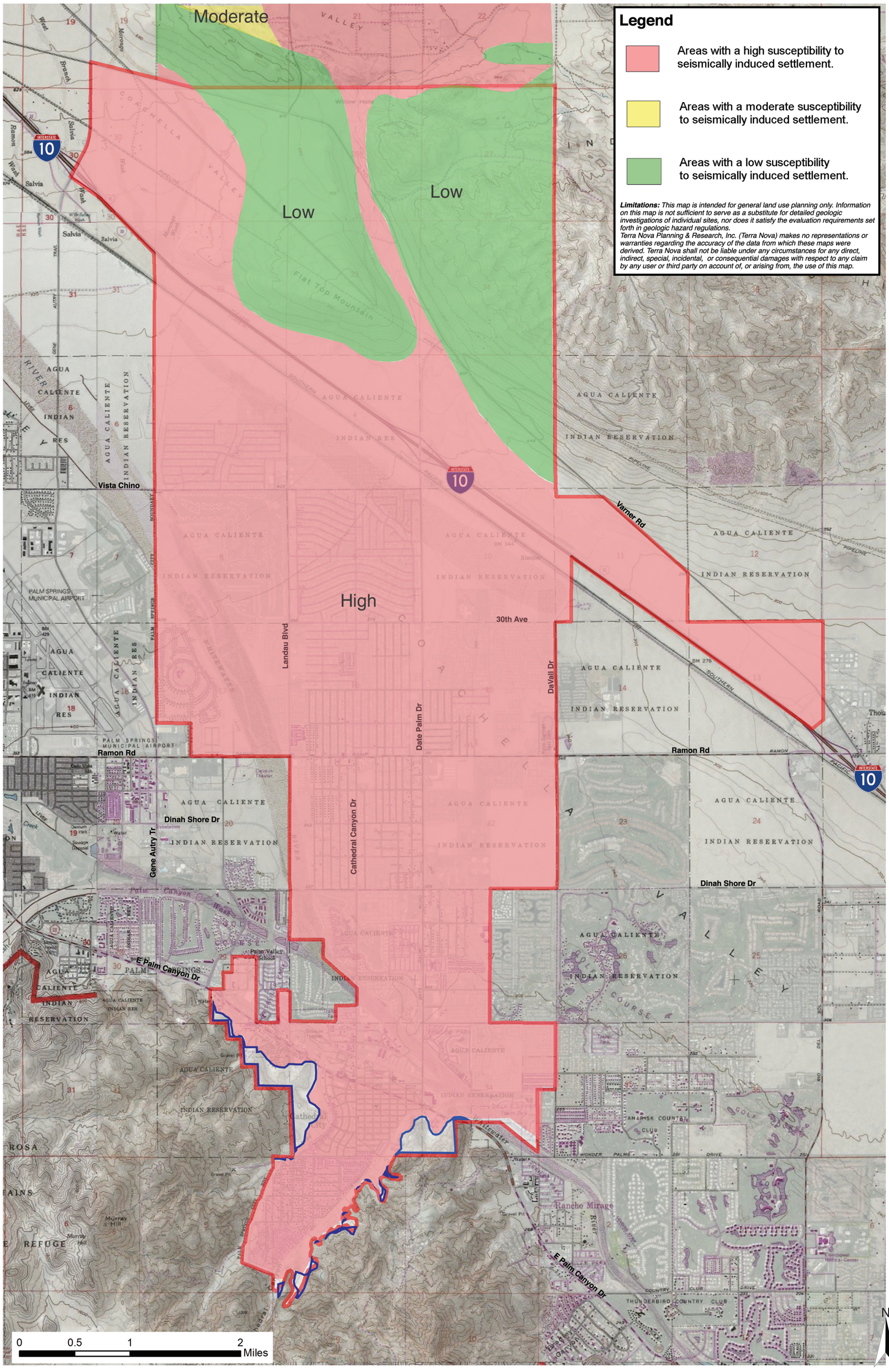
06.21.18 Source: Esri, USGS, 2018; Earth Consultants International, 2001

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City of Cathedral City General Plan EIR
Liquefaction Suceptibility Map
Cathedral City, California

Cathedral City

Exhibit
2.8-4



06.21.18 Source: Esri, USGS, 2018; Earth Consultants International, 2001

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City of Cathedral City General Plan EIR
Suceptibility to Seismically Induced Settlement
Cathedral City, California

Cathedral City

Exhibit
2.8-5

2.8.6 Project Impacts

Based upon Appendix G of the CEQA Guidelines, the General Plan Update would result in significant impacts to soils and/or geological resources if it would:

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

The San Andreas (Coachella Segment) Fault, running northwest-southeast through the northern portion of the planning area, has the potential for an M 7.0 and/or greater earthquake that can lead to ground rupture along its fault traces. In addition, the Garnet Fault near Edom Hill, has the potential to generate a M 7.0 earthquake and could cause ground rupture hazards to existing and planned development along its trace. An earthquake on these faults has the potential for ground rupture hazards to future development and redevelopment.

Currently, land along the San Andreas (Coachella Segment) and Garnet faults is predominantly undeveloped. However, these areas are designated as Open Space – Public/Park (OS-P), Industrial (I), Mixed Use – Neighborhood (MU-N), Business Park (BP), Public – Schools (P/S), and Public Cemetery (P/C) in the proposed General Plan Land Use Plan. Future development facilitated by the proposed General Plan update that would be located on a fault trace of the San Andreas (Coachella Segment) and Garnet faults would be exposed to potential ground rupture hazards, including cracks on the ground surface, building foundation and structural damage, roadway cracks, and pipeline breaks.

However, implementation of proposed General Plan policies and programs, as well as the Alquist-Priolo Act and the City's existing requirement for geotechnical investigations where development is proposed in earthquake fault zones, will reduce potential hazards to less than significant levels. Policy 8 of the proposed General Plan Geotechnical Sub-Element requires geotechnical investigations for development proposed for human occupancy on lands within a City Fault Hazard Management Zone and where the location of the fault is firmly determined to locate structures away from the fault trace. Opportunities to provide adequate setbacks from the fault trace would avoid ground rupture hazards to future developments. Programs 8.A and 8.B require the City to cooperate with county, state and federal agencies in conducting geological investigations of the Garnet Hill and San Andreas faults and setting suitable setbacks along these faults in the planning area. Policies 2 and 3 of the Geotechnical Sub-Element require the structural design of structures that would be located near the faults to include appropriate seismic design criteria. Compliance with these policies and programs will prevent the construction of buildings for human occupancy across the fault trace and require setbacks from the trace, reducing ground rupture hazards to future development.

In summary, compliance with the following would reduce potential ground rupture hazards to less than significant levels: policies and programs set forth in the proposed General Plan Safety Element, the Alquist-Priolo Act, and the City's requirements for geotechnical investigations in City-designated Earthquake Fault Zones. Impacts related to ground surface rupture would be less than significant; no mitigation is required.

ii) Strong seismic ground shaking?

Intense ground shaking in the City could occur during an earthquake event on the San Andreas, Garnet, or San Jacinto Faults, or other nearby faults. Peak ground accelerations and ground shaking intensities are provided in Table 2.8-1. The San Andreas Fault is capable of generating an M 7.4 earthquake, and the San Jacinto Fault is

capable of generating an M 7.2 earthquake. Seismic ground-shaking could pose hazards to existing and future development in the General Plan planning area, including damage to building foundations, frames, walls and columns, windows, chimneys, and ceilings, as well as improvements like roads, railroads, subsurface pipes, bridges, and utility infrastructure. Larger earthquakes and those of longer duration could cause more damage, with some buildings performing more poorly than others.

However, the proposed General Plan includes policies and programs that would minimize potential damage from seismic ground shaking to less than significant levels. Policy 3 of the Geotechnical Sub-Element requires continued compliance with the Uniform Building Code/International Building Code, which would help new development and redevelopment to withstand ground shaking and avoid or reduce structural and non-structural damage. Older buildings are generally more susceptible to ground shaking due to deterioration of building materials and because they were constructed under less stringent building codes. Redevelopment of some areas, subject to the proposed General Plan Land Use Plan, would allow for older buildings to be replaced with new ones that would be built to current building codes, including more stringent seismic design standards as set forth in Policy 5 of the Geotechnical Sub-Element. Thus, beneficial impacts are expected with redevelopment under the proposed General Plan Update as vulnerable structures are demolished and new structures are built to be more resistant to ground-shaking hazards.

In addition, Policies 6 and 7 of the Geotechnical Sub-Element call for the strengthening of existing and planned critical public facilities (e.g., utilities, schools, hospitals, healthcare facilities, eldercare facilities, police and fire stations, and emergency communication facilities) to increase public safety and to minimize potential damage from seismic hazards. Implementation of these policies would reduce potential hazards from ground shaking to less than significant levels; no mitigation is required.

iii) Seismic-related ground failure, including liquefaction?

During an earthquake, liquefaction may occur in areas with loose soils and high water tables. As shown in Exhibit 2.8-4, the majority of the City has a low to no liquefaction susceptibility, principally because groundwater in the Cathedral City area typically occurs 150 to 200 feet below the ground surface, too deep to saturate the loose surface sediments of the valley floor. Although depth to groundwater may be less than 50 feet adjacent to the Santa Rosa Mountains in the southern planning area, the alluvial sediments in this area are coarse-grained sand, gravels, cobbles, and boulders that are not susceptible to liquefaction.

As previously explained, groundwater occurs within 50 feet of the surface in the northern portion of the planning area near Willow Hole, and the unconsolidated alluvial sediments are highly susceptible to liquefaction.

Future development under the proposed General Plan Land Use Plan in this area would be exposed to potential liquefaction hazards, including soil settlement, loss of bearing capacity in foundation soils, and the buoyant rise of structures, leading to structural distress or failure. Excess hydrostatic pressure may also lead to sand boils, mud spouts, and seepage of water through ground cracks.

However, the General Plan Geotechnical Sub-Element includes Policy 9 which requires geotechnical investigations for new development proposed in areas identified as being subject to geotechnical hazards, including liquefaction, to determine on-site geologic conditions and identify appropriate recommendations for earthwork, grading, slopes, foundations, pavements, and other necessary geologic and seismic design considerations. Compliance with Policy 9 would identify potential liquefaction hazards on individual development sites and site-specific mitigation measures, if any, that would be necessary to minimize potential liquefaction hazards. Impacts associated with liquefaction would be less than significant; no mitigation is required.

iv) Landslides?

As shown in Exhibit 2.8-1, the slopes of the Indio Hills and Santa Rosa Mountains are susceptible to seismically-induced rock fall and landslides. Land in the Indio Hills is generally undeveloped; however, the proposed General Plan Land Use Plan would allow the following urban land uses: Open Space – Public/Park (OS-P), Industrial (I), Hillside Reserve, and Public-Schools (P/S). Future development in this area would disturb existing soils and slopes and increase the number of structures and people exposed to potential slope instability hazards. Policy 9 of the General Plan Geotechnical Sub-Element requires project-specific geotechnical investigations where development is proposed in areas identified as being subject to geotechnical hazards, including slope instability, to identify potential hazards and appropriate site-specific mitigation measures, as necessary, to minimize potential hazards. Policy 12 of the Geotechnical Sub-Element restricts development along the foothills to minimize the potential impacts of slope failure. In addition, it requires minimized grading and modification to the natural topography in these areas to prevent the potential for development-induced slope failures. With implementation of Policies 9 and 12, impacts would be less than significant.

Potential slope instability hazards also exist along the slopes of the Santa Rosa Mountains in the southern portion of the planning area. Downslope land includes vacant open space, the East and West Cathedral Canyon stormwater channels, and existing residential development in the Cove neighborhood. The stormwater channels could absorb much of the potential damage from landslides and rockfalls, thereby protecting habitable structures within the Cove. The proposed General Plan Land Use Plan preserves the Santa Rosa Mountain slopes as Open Space–Private and Open Space-Other, and preserves the East and West Cathedral Canyon channels as Open Space–Water. It does not propose new development or other improvements that would alter the existing slopes or development in the area. In this area, the General Plan would have less than significant impacts on hazards associated with slope instability. Impacts associated with landslides would be less than significant; no mitigation is required.

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

The majority of the City consists of Carsitas cobbly sand (ChC), Myoma fine sand (MaB), and Carsitas gravelly sand (CdC), which have low to medium susceptibility to soil erosion.[14] However, much of the planning area is highly susceptible to wind hazards that contribute to soil erosion and the generation of fugitive dust. These contribute to the soiling of exterior furniture and vehicles, nuisances and increased health risks to people, loose soils on roadways and driveways, reduction in visibility for drivers, and loss of topsoil.

The proposed General Plan update would facilitate new development in the planning area. Grading and excavation activities for construction may lead to localized erosion, as wind and water carry loose soils off site. In general, erosion would likely occur in an easterly and northeasterly direction, consistent with the general local topography and prevailing winds. Implementation of erosion-control measures required by Policy 10 of the Geotechnical Sub-Element would avoid and minimize soil erosion and the loss of topsoil.

Policies 2 and 8 of the Air Quality and Climate Stability Element seeks to minimize blowsand and nuisance dust associated with wind and soil erosion hazards. Dust control measures required by the City, CVAG, and SCAQMD include pre-watering, prompt revegetation, and use of soil binders, which would reduce impacts associated with soil blowing and wind erosion during construction activities (Policy 10 - Geotechnical Sub-Element). Compliance with these erosion-control regulations would reduce soil erosion from future development and redevelopment.

[14] Soil Survey of Riverside County, California, Coachella Valley Area, U.S. Department of Agriculture Soil Conservation Service, September 1980.

In addition, future development and redevelopment projects would be required to implement erosion control Best Management Practices (BMPs) outlined in the Storm Water Pollution Prevention Plan (SWPPP) that would be developed and implemented as part of construction activities on sites greater than one acre, in compliance with the National Pollutant Discharge Elimination System (NPDES). This is further discussed in Section 2.10: Hydrology and Water Quality, of this DEIR.

As the General Plan planning area builds out, new pavement, roads, buildings, and landscaping can be expected to help stabilize soils and reduce soil erosion from both wind and water.

In summary, the proposed General Plan Update includes numerous policies that seek to minimize and avoid hazards associated with soil erosion. Implementation of these policies will reduce potential impacts related to erosion to less than significant levels; no mitigation is required.

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

As discussed under response ***a.iv***, above, the majority of the planning area does not include any areas identified as being susceptible to landslides, and the overall risk of landslides is low. Rockfall and landslide areas have been identified along the foothills of the Santa Rosa Mountains and Indio Hills which are designated as Open Space – Other (OP-O) and Open Space – Public/Park (OS-P) in the proposed General Plan Land Use Map to reduce potential impacts. The General Plan Geotechnical Sub-Element also includes Policies 9 and 12 that will reduce potential impacts to less than significant levels.

Subsidence typically occur where groundwater or natural gas is extracted. There have been no documented incidents of subsidence in the City. In the Coachella Valley, land surface subsidence has been documented in Palm Desert, Indian Wells, and La Quinta, mainly due to excessive groundwater pumping.[15] The potential for groundwater extraction-related ground subsidence in the area is considered to be limited due to reduction in pumping in these areas and replenishment of regional groundwater aquifers with imported water. Policy 11 of the General Plan Geotechnical Sub-Element requires the City to actively support and participate in local and regional efforts at groundwater conservation and recharge to minimize the potential impacts of subsidence due to the extraction of groundwater. With implementation of Policy 11, impacts would be less than significant.

As discussed under response ***a.iii*** above, a small portion of the planning area in the northern portion of the City, near Willow Hole, has a high susceptibility to liquefaction. However, the General Plan Geotechnical Sub-Element includes Policy 9 which requires geotechnical investigations for new development proposed in areas identified as being subject to geotechnical hazards, including liquefaction, to determine on-site geologic conditions and identify appropriate recommendations for earthwork, grading, slopes, foundations, pavements, and other necessary geologic and seismic design considerations. Compliance with Policy 9 would identify potential liquefaction hazards on individual development sites and site-specific mitigation measures, if any, that would be necessary to minimize potential liquefaction hazards. Impacts associated with liquefaction would be less than significant; no mitigation is required.

Overall, the planning area is located in an area with geotechnical hazards such as landslides, subsidence, and liquefaction. However, policies are incorporated in the General Plan to minimize the potential impacts to less than significant levels.

[15] Land Subsidence, Groundwater Levels, and Geology in the Coachella Valley, California, 1993–2010 by Michelle Sneed, Justin T. Brandt, and Mike Solt, 2014.

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

Expansive soils increase in volume with an increase in moisture content. These soils swell when water is added to them and shrink when they dry out. Foundations built on expansive soils can heave and can cause lifting and even structural damage when the moisture content rises. This can ultimately lead to the failure of foundations and structures.

According to USDA's Soil Survey of the City, the soils in the planning area have a low shrink-swell potential.[16] The older fan deposits of the Indio Hills may contain clay-rich soils near the surface; however, these units are typically removed and recompacted during grading. Mixing of soils during this process is expected to reduce their expansion potential.

The proposed General Plan update will facilitate new development in the planning area. Site-specific geotechnical investigations will be required for every development identified as being subject to geotechnical hazards (Policy 9 of the Geotechnical Sub-Element). That policy requires the City to impose the preparation of site-specific geotechnical investigations by the applicant prior to completion of CEQA studies and development approval. Furthermore, all such studies shall include mitigation measures that reduce associated hazards to insignificant levels. The geotechnical investigations would identify structural design criteria and construction recommendations to ensure the stability and integrity of structures and infrastructure that would be built, including the potential for soil expansion and the soil expansion index that needs to be used in the engineering design. Compliance with the City's building regulations for the preparation of geotechnical investigations and compliance with appropriate construction standards for individual projects would ensure that impacts related to expansive soils would be less than significant. Impacts of the proposed General Plan update on hazards associated with expansive soils would be less than significant; no mitigation is required.

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

The city passed Ordinance 572 in 2000 to prohibit issuance of permits for new septic tank installation within the city. All new and existing buildings and structures with plumbing facilities were required to be connected to an available public sewer system. The ordinance included provisions to fine people that did not connect to the sewer system. Additionally, Ordinance 626 (2006) states that, where developers install sewer improvements that subsequently benefit other properties located between the sewer improvements and the point of connection to an existing main, they shall be eligible to enter into a reimbursement agreement with the city.

The proposed General Plan would not violate or alter City ordinances pertaining to sewer system connections. The proposed General Plan update would facilitate new development in the planning area. Where existing sewer lines are available, development would connect to the public sewer system (Policy 5 - Water Resources Element). Where no sewer lines are present, the public sewer system would need to be expanded to serve development. Soils in the City and surrounding areas are capable of supporting existing and future wastewater collection systems operated by the Coachella Valley Water District (CVWD) and Desert Water Agency (DWA). Overall, impacts will be less than significant, and no mitigation is required.

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

The City is not known to contain unique paleontological or geologic features. The majority of City soils are composed of recently deposited alluvium which has a low potential to contain paleontological resources. The planning area is largely developed south of I-10, and the urban landscape is a mix of residential, commercial,

[16] Soil Survey of Riverside County, California, Coachella Valley Area, U.S. Department of Agriculture Soil Conservation Service, September 1980.

industrial, and other development, as well as roadways, utilities, and other infrastructure. Any paleontological or geologic sites or resources would likely have been disturbed already by urban development. Land north of I-10 is generally undeveloped and could harbor unknown resources.

The proposed General Plan Land Use Plan would allow for development and redevelopment in the planning area that could result in direct and/or indirect impacts to paleontological and geologic resources. Ground-disturbing activities could have the potential to damage or destroy paleontological resources that may be present below the ground surface. Any future projects that would be allowed under the General Plan Update would be subject to CEQA analysis on a project-by-project basis to identify potential impacts and establish appropriate mitigation measures, as needed. Overall, impacts will be less than significant, and no mitigation is required.

2.8.7 Mitigation Measures

The following mitigation measures will serve to avoid, minimize and mitigate potential impacts to City lands, buildings and other structures and human lives from the geotechnical hazards identified in this EIR. They are not meant to be all-inclusive and new or revised local and state requirements may also apply.

GEO-1 The City shall establish and maintain an information database containing maps and other information which describe seismic and other geotechnical hazards occurring within the planning area.

GEO-2 The City shall actively promote public education, research, and information dissemination on seismic and geotechnical hazards.

GEO-3 New development in the planning area shall be constructed in accordance with the prevailing seismic design requirements contained in the most recently adopted edition of the Uniform Building Code/International Building Code and as otherwise required by the City.

GEO-4 The City shall continue to incorporate seismic risk analysis into the City's on-going building inspection program.

GEO-5 On sites where threats from seismic hazards cannot be adequately mitigated through the application of existing regulatory requirements and Updated General Plan policies and implementation programs, the City shall use open space easements and/or other related regulatory measures to limit development and thus avoid public safety hazards.

GEO-6 Proposals for development on wind or stream-deposited sediment on the valley floor shall include site-specific subsurface geotechnical investigations that address settlement, liquefaction, and collapsible soils. These hazards can generally be mitigated by proper excavation, compaction and foundation design.

GEO-7 The City shall continue to require expansive soils testing as part of its grading and building codes, and shall assure the implementation of mitigation measures which minimize these hazards, such as the use of reinforcing steel in foundations, drainage control devices, overexcavation and backfilling with non-expansive soils.

GEO-8 The City shall continue to support and encourage local and regional groundwater conservation measures in an effort to mitigate potential subsidence resulting from groundwater overdraft. (see also Water Resources discussion in Section 2.10: Hydrology and Flooding).

GEO-9 All grading permit requests shall include a PM_{10} Management Plan in conformance with the latest approved Coachella Valley PM_{10} requirements in place at the time construction occurs. Blowing dust and sand during grading operations shall be mitigated by adequate watering of soils prior to and during grading, and limiting the area of dry, exposed soils during grading (see also Air Quality discussion in Section 2.4).

GEO-10 Where development is proposed adjacent to or in close proximity to steep slopes, site-specific geotechnical studies shall be conducted to evaluate the potential for rock falls and/or slope failure, and to establish mitigation measures which minimize these hazards.

GEO-11 All development proposed within Alquist-Priolo Earthquake Zones and City-designated study zones shall comply with State requirements for site-specific study, including trenching to locate fault traces, and to submit this analysis prior to any development approval for the property.

GEO-12 During site grading, all existing vegetation and debris shall be removed from areas that are to receive compacted fill. Any trees to be removed shall have a minimum of 95% of the root systems extracted or as prescribed by the project soils engineer. Man-made objects shall be overexcavated and exported from the site. Removal of unsuitable materials may require excavation to depths ranging from 2 to 4 feet or more below the existing site grade.

GEO-13 All fill soil, whether on site or imported, shall be approved by the individual project soils engineer prior to placement as compaction fill. All fill soil should be free from vegetation, organic material, cobbles and boulders greater than 6 inches in diameter, and other debris. Approved soil shall be placed in horizontal lifts of appropriate thickness, as prescribed by the soils engineer, and watered or aerated as necessary to obtain near-optimum moisture content.

GEO-14 Fill materials shall be completely and uniformly compacted to not less than 90% of the laboratory maximum density as determined by ASTM test method D-1557-78. The project soils engineer shall observe the placement of fill and take sufficient tests to verify the moisture content, uniformity, and degree of compaction obtained. In-place soil density should be determined by the sand-cone method, in accordance with ASTM Test Method D-1556-64 (74), or equivalent test method recommended by the soils engineer and as acceptable to the City Building and Safety Department.

GEO-15 Finish cut slopes generally shall not be inclined steeper than 2:1 (horizontal to vertical). Attempts to excavate near-vertical temporary cuts for retaining walls or utility installations in excess of 5 feet may result in gross failure of the cut and may possibly damage equipment and injure workers. All cut slopes must be inspected during grading to provide additional recommendations for safe construction.

GEO-16 Finish fill slopes shall not be inclined steeper than 2:1 (horizontal to vertical) or as approved by the project geotechnical engineer. Fill slope surfaces should be compacted to 90% of the laboratory maximum density by either over-filling and cutting back to expose a compacted core or by approved mechanical methods.

GEO-17 Foundation systems that utilize continuous and spread footings are recommended by the project soils engineer for the support of one and two-story structures. Foundations for higher structures must be evaluated based on structure design and on-site soil conditions.

GEO-18 Positive site drainage shall be established during finish grading. Finish lot grading shall include a minimum positive gradient of 2% away from structures for a minimum distance of three (3) feet and a minimum gradient of 1% to the street or other approved drainage course.

GEO-19 An adequate subdrain system shall be constructed behind and at the base of all retaining walls to allow for adequate drainage and to prevent excessive hydrostatic pressure.

GEO-20 Utility trench excavations in slope areas or within the zone of influence of structures should be properly backfilled in accordance with the following recommendations:

a) Pipes shall be bedded with a minimum of 6 inches of pea gravel or approved granular soil. Similar material shall be used to provide a cover of at least 1 foot over the pipe. This backfill shall then be uniformly compacted by mechanical means or jetted to a firm and unyielding condition.

b) Remaining backfill may be fine-grained soil. It shall be placed in lifts not exceeding 6 inches in thickness or as determined appropriate, watered or aerated to near optimum moisture content, and mechanically compacted to a minimum of 90% of the laboratory maximum density.

c) Pipes in trenches within 5 feet of the top of slopes or on the face of slopes shall be bedded and backfilled with pea gravel or approved granular soils as described above. The remainder of the trench backfill shall comprise typical on-site fill soil mechanically compacted as described in the previous paragraph.

2.8.8 Significance After Mitigation

The proposed General Plan Update would not result in any significant impacts to or significant unmitigated impacts from geology and soil conditions.

2.8.9 Cumulative Impacts

Future development and redevelopment pursuant to the proposed 2040 General Plan Update would involve grading and excavation activities on individual sites, which would result in changes to the area's existing geology and soils conditions. Development sites that are relatively flat would remain flat, while hillside development would require cut and fill, manufactured slopes, and changes to the natural topography. Compliance with the CBC and the recommendations of individual geotechnical investigations would reduce geologic hazards to new development.

Earthquake faults in the planning area pose surface rupture hazards to developments proposed over the fault traces. However, compliance with the Alquist-Priolo Act would minimize surface rupture hazards to new development and redevelopment in the planning area.

Ground shaking hazards due to regional earthquake events could lead to the damage of buildings, parking lots, and utility lines, and resulting fires, falling objects, and other structural hazards, which could cause property damage and personal injuries. Ground-shaking hazards are not unlike the potential hazards in other areas of the region. Depending on the magnitude of the earthquake, distance to the development site, underlying soil conditions, and strength of structures and infrastructure, ground-shaking hazards may be significant.

Future development and redevelopment in the planning area would be designed and built in accordance with applicable standards in the CBC, including pertinent seismic design criteria. Existing buildings would be rehabilitated in accordance with the CBC and local building regulations. This will allow structures to withstand ground shaking and to maintain hazards at acceptable levels.

Site-specific geologic hazards would be addressed by geotechnical investigations required by individual cities and the County for each development proposal. Investigations would identify the geologic and seismic characteristics of a site and provide guidelines for engineering design and construction to ensure the structural integrity of the

proposed development. Compliance of individual projects with the recommendations of the geotechnical investigation would prevent potential hazards associated with unstable soils, landslides, lateral spreading, liquefaction, soil collapse, expansive soil, soil erosion, and other geologic issues. No cumulative adverse impacts are expected.

Future development and redevelopment would be required to connect to a public sewer system. Compliance with the ordinances (Ord. 572 § 1, 2000 and Ord. 626 § 1, 2006) would prevent future use of septic tanks in the City and assure continued protection and high quality of local and regional water sources.

Impacts of the proposed General Plan update on or resulting from geology and soil conditions are not expected to be cumulatively significant, with compliance with geotechnical and engineering practices related to seismic and geologic hazard reduction, structural integrity, and soil management.

2.9 Hazards and Hazardous Materials and Wildfires

2.9.1 Introduction

This section of the EIR describes the potential for the Cathedral City General Plan Update to create hazards to the public or residents of the area through the transport, use, or disposal of hazardous materials, exposure of persons to existing onsite hazardous materials or soil contamination, or exposure to potential wildland fires. This section also provides an overview of existing wildfire conditions within the General Plan planning area and the surrounding region and an analysis of potential wildfire hazards that would result from General Plan implementation. The regulatory environment and thresholds of significance are described. The project's potential hazardous impacts are discussed, and mitigation measures are set forth where needed. This section concludes with a discussion of residual and cumulative impacts.

2.9.2 Thresholds of Significance

Hazards and Hazardous Materials

According to Appendix G of the CEQA Guidelines, the proposed Cathedral City General Plan Update would have a significant impact regarding hazards and hazardous materials if it would:

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

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

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

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

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

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

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

Wildfire

According to Appendix G of the CEQA Guidelines, if located in or near State responsibility areas or lands classified as very high fire hazard severity zones, the project would have a significant impact regarding wildfires if it would:

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

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

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

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

2.9.3 Regulatory Framework

Federal

U.S. Department of Transportation Hazardous Materials Transport Act (49 USC 5101)
The Hazardous Materials Transportation Act of 1974 directs the U.S. Department of Transportation to establish criteria and regulations regarding the safe storage and transportation of hazardous materials. CFR 49, 171–180, regulates the transportation of hazardous materials, types of material defined as hazardous, and the marking of vehicles transporting hazardous materials. This law requires offerors and transporters of certain hazardous materials, including hazardous wastes, to file a registration statement with the U.S. Department of Transportation and to pay an annual registration fee. This program is administered by the Pipeline and Hazardous Materials Safety Administration (PHMSA).

Resource Conservation and Recovery Act (RCRA)
The Resource Conservation and Recovery Act (RCRA) was enacted in 1976. RCRA established a system for managing non-hazardous and hazardous solid wastes in an environmentally sound manner. The Act provides for the management of hazardous wastes from the point of origin to the point of final disposal, i.e., "cradle to grave."

The Environmental Protection Agency (EPA), Department of Commerce (DOC), Department of Energy (DOE), and Department of the Interior (DOI) have specific responsibilities under RCRA. EPA issues guidelines and regulations for proper management of solid and hazardous wastes and oversees and approves the development of state waste management plans. The EPA also provides financial aid to agencies and firms for research on solid waste. The DOC encourages greater commercialization of proven resource recovery technologies. DOE oversees activities involving research and development of new techniques for producing energy from wastes. DOI oversees mineral waste problems, including the recovery of metals and minerals and methods for stabilizing mining wastes.

Under RCRA, no material can be a hazardous waste unless it is a solid waste. Solid waste is a hazardous waste if it a mixture containing one or more listed hazardous wastes, or exhibits one or more characteristics of hazardous waste (i.e., ignitability, corrosivity, reactivity, or toxicity). When wastes which are listed as hazardous wastes are mixed with non-hazardous wastes or materials, the mixture must be managed as hazardous waste. However, a characteristic waste remains hazardous only as long as it exhibits a hazardous characteristic.

Federal Aviation Administration
The Federal Aviation Administration (FAA) has primary responsibility for the safety of civil aviation. Its major functions regarding hazards include the following: (1) developing and operating a common system of air traffic control and navigation for both civil and military aircraft, (2) developing and implementing programs to control aircraft noise and other environmental effects of civil aviation, (3) regulating U.S. commercial space transportation, and (4) conducting reviews to determine that the safety of persons and property on the ground are protected. The FAA requires notification of proposed construction projects that meet specific height requirements. The Palm Springs International Airport is located immediately west of the Cathedral City corporate limits.

State

California Hazardous Waste Control Act

The California Hazardous Waste Control Act (HWCA), as found in the California Health and Safety Code, Division 20, Chapter 6.5, Article 2, Section 25100, et seq., authorizes the California Department of Toxic Substances Control and local Certified Unified Program Agencies (CUPA) to regulate facilities that generate or treat hazardous waste. The HWCA authorizes CUPAs to perform the following actions:

- Conduct inspections of any factory, plant, construction site, waste disposal site, transfer station, establishment or any other place or environment where hazardous wastes are stored, handled, processed, disposed of, or being treated to recover resources;
- Maintain records of compliance with the Hazardous Waste Control Act;
- Require hazardous waste generators as provided herein, to pay inspection and administration fees to cover the costs of administering the provisions in this Act. Fees may include but shall not be limited to the costs of inspection, document development and processing, recordkeeping, enforcement activities, and informational materials development and distribution;
- Issue authorization for on-site treatment of hazardous waste to persons eligible to operate pursuant to permit-by-rule, conditional authorization or conditional exemption; and
- Enforce against violations of the HWCA.

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, CHP, California Department of Fish and Wildlife, Regional Water Quality Control Boards, Air Quality Management Districts, and County Disaster Response Offices.

Government Code Section 65962.5

Government Code section 65962.5 requires the California Environmental Protection Agency to develop, at least annually, an updated Cortese List. 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 Cortese List.

Hazardous Materials Release Response Plans and Inventory Law

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 hazardous materials inventories. A business plan includes an inventory of hazardous materials handled, facility floor plans showing where hazardous materials are stored, an emergency response plan, and provisions for employee training in safety and emergency response procedures (California Health and Safety Code, Division 20, Chapter 6.95, Article 1). Statewide, DTSC has primary regulatory responsibility for management of hazardous materials, with delegation of authority to local jurisdictions that enter into agreements with the state. Local agencies are responsible for administering these regulations.

Several state agencies regulate the transportation and use of hazardous materials to minimize potential risks to public health and safety, including Cal/EPA and the California Emergency Management Agency. The California Highway Patrol and California Department of Transportation enforce regulations specifically related to the transport of hazardous materials. Together, these agencies determine container types used and license hazardous waste haulers for hazardous waste transportation on public roadways.

State Water Resources Control Board and Regional Water Quality Control Boards

The State Water Resources Control Board (SWRCB) and nine regional water quality control boards (RWQCBs) are responsible for ensuring implementation and compliance with the provisions of the federal Clean Water Act and the Porter-Cologne Act of 1969. The Porter-Cologne Act is California's statutory authority for the protection of water quality. Along with the SWRCB and RWQCBs, water quality protection is the responsibility of numerous water supply and wastewater management agencies, as well as city and county governments, and requires the coordinated efforts of these various entities. Individual RWQCBs are responsible for identifying, monitoring, and cleaning up leaking underground storage tanks (LUSTs). The SFRWQCB's underground storage tank (UST) cleanup unit provides technical and regulatory oversight for the investigation and cleanup of sites with leaks from USTs. LUSTs are an important threat to groundwater and pose a potential threat to human health, safety, and the environment.

California Health and Safety Code, Division 20, Chapter 6.5, Hazardous Waste Control Law

The California Health and Safety Code, Division 20, Chapter 6.5, Hazardous Waste Control Law regulates hazardous wastes generated within the State of California. The law identifies proper guidance for the handling, storage, use, and disposal of hazardous wastes. Additionally, it identifies the need for proper landfill disposal in order to reduce long-term threats to public health and air and water quality.

Included in this is the preparation of Hazardous Materials Business Plans (HMBPs) (Chapter 6.95 of the Health and Safety Code, Sections 25501 et seq.), which are required of businesses that handle specified quantities of chemicals in accordance with community right-to-know laws. This plan allows local agencies to plan appropriately for a chemical release, fire, or other incidents. Hazardous waste regulations establish criteria for identifying, packaging, and labeling hazardous wastes; dictate the management of hazardous waste; establish permit requirements for hazardous waste treatment, storage, disposal and transportation; and identify hazardous wastes that cannot be disposed of in landfills.

License to Transport Hazardous Materials – California Vehicle Code, Section 32000.5 et seq.

Caltrans regulates hazardous materials transportation on all interstate roads within California. The State agencies with primary responsibility for enforcing federal and State regulations and for responding to transportation emergencies are the California Highway Patrol (CHP) and Caltrans. Together, Federal and State agencies determine driver-training requirements, load labeling procedures, and container specifications for vehicles transporting hazardous materials.

California Fire Code, Title 24, Part 9, Chapters 33, 50, and 57

The 2013 California Fire Code (CFC), written by the California Building Standards Commission, is based on the 2012 International Fire Code. The International Fire Code (IFC) is a model code that regulates minimum fire safety requirements for new and existing buildings, facilities, storage, and processes. The IFC addresses fire prevention, fire protection, life safety, and safe storage and use of hazardous materials in new and existing buildings, facilities, and processes.

Uniform Fire Code

The Uniform Fire Code, Article 80 (Section 80.103 of the Uniform Fire Code as adopted by the State Fire Marshal pursuant to Health and Safety Code Section 13143.9), includes specific requirements for the safe storage and handling of hazardous materials and for mixing of incompatible chemicals, and specifies design features to reduce the potential for a release of hazardous materials that could affect public health or the environment.

Emergency Response Planning

California has developed an emergency response plan to coordinate emergency services provided by federal, state, and local government and private entities. Responding to hazardous materials incidents is one part of this plan. The plan is administered by the State Office of Emergency Health Department's Emergency Services, which coordinates the responses of other agencies.

The Riverside County Environmental Health Department's Emergency Response Team provides the capabilities for hazardous materials emergencies within the project area. Emergency Response Team members respond and work with local and police agencies, California Highway Patrol, California Department of Fish and Wildfire, California Department of Transportation, U.S. Coast Guard and National Marine Sanctuary personnel.

California Department of Forestry and Fire Protection (CALFIRE)

CALFIRE maps identify fire hazard severity zones in the state and local responsibility areas. Wildland fire protection in California is the responsibility of either the state, local government, or federal government. A Designated Safety Responsibility Area (SRA) is the area "in which the financial responsibility of preventing and suppressing fires is primarily the responsibility of the state" (Public Resources Code Section 4125). Local Responsibility Areas (LRA) include incorporated cities, cultivated agricultural lands, and portions of the desert. LRA fire protection is typically provided by city fire departments, fire protection districts, counties, and CALFIRE under contract to local government.

CALFIRE protects the people of California from fires, responds to emergencies, and protects and enhances forest, range, and watershed values providing social, economic, and environmental benefits to rural and urban citizens. Its firefighters, fire engines, and aircraft respond to an average of more than 5,600 wildland fires each year.[1]

The Office of the State Fire Marshal (OSFM) supports CALFIRE's mission by focusing on fire prevention. It provides support through a wide variety of fire safety responsibilities, including by regulating buildings in which people live, congregate, or are confined; by controlling substances and products which may, in and of themselves, or by their misuse, cause injuries, death, and destruction by fire; by providing statewide direction for fire prevention in wildland areas; by regulating hazardous liquid pipelines; by reviewing regulations and building standards; and by providing training and education in fire protection methods and responsibilities.[2]

State Fire Regulations

Fire regulations for California are established in Sections 13000 et seq. of the California Health and Services Code and include regulations for structural standards (similar to those identified in the California Building Code); fire protection and public notification systems; fire protection devices such as extinguishers and smoke alarms; standards for high-rise structures and childcare facilities; and fire suppression training. The State Fire Marshal is responsible for enforcement of these established regulations and building standards for all state-owned buildings, state-occupied buildings, and state institutions within California.[3]

California Fire Plan

The Fire Plan is a cooperative effort between the State Board of Forestry and Fire Protection and the California Department of Forestry and Fire Protection. By placing the emphasis on what needs to be done long before a fire starts, the Fire Plan looks to reduce firefighting costs and property losses, increase firefighter safety, and contribute to ecosystem health.[4] The current strategic Fire Plan for the State of California plan was updated in August 2018.[5]

1 CALFIRE Website – About CALFIRE, http://calfire.ca.gov/about/about, Accessed March 2019.
2 Ibid.
3 Office of the State Fire Marshal Regulated Occupancies: Authority, Responsibility, Inspection Frequency, Ability to Modify Regulations Locally Ability to Charge an Inspection Fee by Office of the State Fire Marshal (2011).
4 Op. cit.
5 2018 Strategic Fire Plan for California By State Board of Forestry and Fire Protection, California Department of Forestry and Fire Protection (CALFIRE) (August 22, 2018).

California Public Resources Code (Fire Hazard Severity Zones – Public Resources Code Sections 4201–4204)

Public Resources Code (PRC) Sections 4201–4204 and Government Code Sections 51175–89 direct CALFIRE to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors.[6] These zones, referred to as fire hazard severity zones (FHSZ), define the application of various mitigation strategies to reduce risk associated with wildland fires. Two small portions of the City adjacent to the southwest and southeast city limits are designated as a fire hazard severity zone within the Local Responsibility Area and State and Federal Responsibility Area (see Exhibit 2.9-1).[7]

California Fire Code

The 2016 California Fire Code (Title 24, Part 9 of the California Code of Regulations) establishes regulations to safeguard against the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises.[8] The Fire Code also establishes requirements intended to provide safety for and assistance to firefighters and emergency responders during emergency operations. The provisions of the Fire Code apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure throughout California. The Fire Code includes regulations regarding fire-resistance-rated construction, fire protection systems such as alarm and sprinkler systems, fire services features such as fire apparatus access roads, means of egress, fire safety during construction and demolition, and wildland-urban interface areas. The City of Cathedral City has adopted the California Fire Code as part of its building regulations (Municipal Code Chapter 8.12, Section 8.12.010.) and implements these standards through its building permit process.[9]

Senate Bill 1241

In 2012, Senate Bill 1241 added Section 66474.02 to Title 7 Division 2 of the California Government Code, commonly known as the Subdivision Map Act.[10] The statute prohibits subdivision of parcels designated very high fire hazard, or that are in a State Responsibility Area, unless certain findings are made prior to approval of the tentative map. The statute requires that a city or county planning commission make three new findings regarding fire hazard safety before approving a subdivision proposal. The three findings are, in brief: (1) the design and location of the subdivision and its lots are consistent with defensible space regulations found in Public Resources Code – PRC Section 4290-91, (2) structural fire protection services will be available for the subdivision through a publicly funded entity, and (3) ingress and egress road standards for fire equipment are met per any applicable local ordinance and PRC Section 4290.

Regional and Local

Riverside County Hazardous Waste Management Plan

AB 2948 (Chapter 1504, Statures of 1986), commonly known as the Tanner Bill, authorizes counties to prepare Hazardous Waste Management Plans (HWMP) in response to the need for safe management of hazardous materials and waste products. Originally adopted by the County and approved by the state in 1990, the County HWMP was established to identify the types and amounts of wastes generated in the County and enact programs for managing those wastes. The HWMP identifies the type and quantity of hazardous waste generated in the County. It projects future quantities likely to be generated and includes goals, policies, and standards for the management of hazardous waste. Also, the HWMP establishes procedures for the siting of new hazardous materials treatment, storage, and disposal facilities.

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6 Chapter 49 Requirements for Wildland-Urban Interface Fire Areas, https://up.codes/viewer/california/ca-fire-code-2016/chapter/49/requirements-for-wildland-urban-interface-fire-areas#49, Accessed March 2019.

7 Fire Hazard Severity Zone Online GIS Map by CALFIRE. Personal communication, David Sapsis, Wildland Fire Scientist, Fire and Resource Assessment Program, CALFIRE. July 11, 2019

8 2016 California Fire Code by California Building Standards Commission.

9 Municipal Code Chapter 8.12, Section 8.12.010- California Fire Code adopted with Amendments.

10 Senate Bill No. 1241, http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201120120SB1241, Accessed March 2019.

HWMP policies require the County to coordinate its efforts with state and federal agencies in the identification and establishment of programs for managing these wastes. As an integral part of the County HWMP, the City hazardous waste management policies of the General Plan are extensions of the County Plan.

Countywide Integrated Waste Management

The Countywide Integrated Waste Management Plan (CIWMP) was prepared in accordance with the California Integrated Waste Management Act of 1989, Chapter 1095 (AB 939). AB 939 redefined solid waste management in terms of objectives and planning responsibilities for local jurisdictions and the state. AB 939 requires each of the cities and unincorporated portions of counties throughout the state to divert a minimum of 25% of the waste stream by 1995 and 50% of the solid waste landfilled by the year 2000.

To attain these goals for reductions in disposal, AB 939 established a planning hierarchy utilizing new integrated solid waste management practices.[11] Riverside County revises the CIWMP every five years and publishes a Five-Year Review Report to assure that the County's waste management practices remain consistent with the hierarchy of waste management practices. The County also utilizes State grants, when available, to fund its recycling programs, such as household hazardous waste and used oil collection.[12] The City has developed a *Refuse and Recycling Guide* to further waste diversion.

Riverside County Unit Strategic Fire Management Plan

The purpose of the Riverside County Fire Plan is to describe the Riverside Unit's preparedness and firefighting capabilities, identify collaboration with all County stakeholders, identify values at risk, discuss pre-fire management strategies, and articulate pre-fire management tactics.[13] The Plan was updated in 2017.

Cathedral City's Local Hazard Mitigation Plan

Cathedral City coordinates with appropriate county, state, and federal agencies in the identification of hazardous material sites and the active regulation of their timely cleanup. Management strategies include establishing and maintaining information on impact sites and periodic monitoring of facilities and operations that produce, utilize or store hazardous materials in the city. Involvement in multi-agency monitoring of illegal dumping in the City, conferring in the regulation of underground storage tanks and septic systems, and regulating the transport of hazardous materials through the community is also coordinated by the City Fire Department.

In compliance with AB 2140, the City prepared its first local hazard mitigation plan in 2012. The purpose of the Local Hazard Mitigation Plan (LHMP) is to integrate hazard mitigation strategies into the City's daily activities and programs. The LHMP assesses risk from earthquakes, transportation accidents, transportation system loss, wild land/urban interface fires, terrorism, nuclear accidents, utility loss or disruption, water and wastewater disruption, hazardous materials incidents, information technology loss or disruption, severe weather, explosions, economic disruption, floods, drought, dam failure, and special events. The Local Hazard Mitigation Plan is amended by the City from time to time; it was last updated in 2017.

City of Cathedral City Municipal Code, Chapter 8.12

Municipal Code Section 8.12.010 under Chapter 8.12 was adopted in 2007. It implements the latest California Fire Code standards and requirements to minimize fire hazards to the human lives and properties.

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11 Riverside County Department of Waste Resources Website, https://www.rcwaste.org/business/planning/ciwmp, Accessed May 2019.

12 Riverside Countywide Integrated Waste Management Plan – Five-Year Review Report (2003).

13 Riverside County Unit Strategic Fire Management Plan (2017), http://cdfdata.fire.ca.gov/pub/fireplan/fpupload/fpppdf1601.pdf, Accessed March 2019.

Proposed General Plan Policies

The Cathedral City General Plan Hazards and Hazardous Materials Sub-Element includes policies that are part of a local regulatory framework within which hazardous materials are managed.

Policy 1: Utilizing the resources available through the County of Riverside and the Regional Water Quality Control Board, maintain current data on hazardous materials users within the planning area.

Policy 2: Encourage and facilitate the adequate and timely cleanup of existing and future contaminated sites within the City and its sphere-of-influence.

Policy 3: The City shall thoroughly evaluate development proposals for lands directly adjacent or in proximity to sites know to be contaminated with hazardous or toxic materials.

Policy 4: The City shall designate appropriate access routes to facilitate the transport of hazardous and toxic materials and wastes.

Policy 5: The Fire Department shall maintain a citywide Local Hazard Mitigation Program, which provides for emergency services in the event of a hazardous spill or airborne release.

Policy 6: Encourage households and small businesses to dispose of hazardous and toxic wastes in accordance with county, state, and federal regulations.

Policy 7: The City shall actively oppose plans for hazardous or toxic waste dumps, landfills, or industrial processes that may potentially adversely affect the City and its Sphere-of-Influence, and shall participate in the identification of alternative sites.

Policy 8: Confer and coordinate with the CVWD, DWA, and the California Regional Water Quality Control Board in the regulation, monitoring, and phased removal of subsurface sewage disposal systems.

Policy 9: The travel route for the transport of hazardous materials and wastes shall have adequate capacity to safely accommodate additional trucks and shall avoid the residential areas.

Policy 10: Hazardous sites susceptible to leak or collapse during earthquakes shall be identified.

Policy 11: The location and number of the hazardous facilities close to the schools, hospitals, and residential areas shall be regulated properly and introduce buffer zones between the hazardous facilities and sensitive facilities and/or receptors.

Policy 12: The City shall minimize exposure to hazardous substances where ever possible.

Policy 13: Encourage and promote practices in the community to reduce the use of hazardous materials and the generation of hazardous waste at their source, recycle the remaining hazardous wastes for reuse, and treat those wastes which cannot be reduced at the source or recycled.

Policy 14: Engage the community in overseeing remediation of toxic sites. Promote the permitting and monitoring of potentially hazardous industrial uses. Develop a response plan to address existing contaminated sites in the city.

Policy 15: The City shall support reductions in the use of hazardous fuels to minimize their impacts to the human health and environment.

2.9.4 Regional Environmental Setting

Hazards and Hazardous Materials

Hazardous materials and chemicals are used daily by industry, businesses, and residents. Some hazardous material sources include seemingly innocuous businesses such as service stations, medical labs, dry-cleaners, and photo processing centers. Others are large firms that may generate large quantities of hazardous waste, such as chemical manufacturers, electroplating companies, or petroleum distilleries. In addition, commonly used household products such as paints, cleaners, oils, batteries, and pesticides contain potentially hazardous ingredients. Accidental spills or leaks, illegal dumping of hazardous waste, illegal storage, or a transportation accident could release hazardous materials in the community.

Both the federal government and the State of California require all businesses that store hazardous materials in excess of specified quantities to report their chemical inventories in a Hazardous Materials Management Plan. Businesses are also required to report releases of toxic chemicals into the air, water, and land, as well as off-site transfers of waste to another location. Facilities that store hazardous materials are required to report pollution prevention activities and chemical recycling. All of these businesses operate under stringent regulations governing the storage, use, manufacturing, and handling of hazardous materials.

The U.S. Environmental Protection Agency (EPA) maintains and publishes a database that lists properties that handle or produce hazardous materials. The EPA defines a small quantity waste generator as one that produces between 100 and 1,000 kilograms of hazardous waste per month.[14] Small businesses like dry cleaners, auto repair shops, hospitals, and metal plating shops usually are defined as generators of small quantities of hazardous waste.

In the Coachella Valley, the potential for exposure to hazards and hazardous materials exists due to the presence of commercial uses, past and present agricultural activity, industrial operations, transportation and distribution of products, and use of hazardous materials by households and businesses. Major transportation corridors in the valley that facilitate transportation of hazardous materials include I-10, SR-74, SR-86, SR-62, State Highway 111, and the Union Pacific Railroad. Proximity to the Palm Springs International Airport, Bermuda Dunes Airport, and Jacqueline Cochran Regional Airport may also result in safety hazards.

Several sites in the valley are identified on the SWRCB and DTSC contaminated site lists. They generally include commercial businesses, such as gas stations, with fuel or oil leaks or spills; cleanup efforts are monitored by the appropriate agencies.[15] Identifying hazardous waste sites is crucial for future land use decisions and planning, as sites with known contamination can pose health and safety risks to existing and future residents.

Wildfire

Wildfire is defined as nonstructural fire that occurs in vegetative fuels, excluding prescribed fire. Wildfires can occur in undeveloped areas and spread to urban areas where the landscape and structures are not designed and maintained to be ignition resistant. A wildland-urban interface is an area where urban development is located in proximity to open space or “wildland” areas. The potential for wildland fires represents a hazard where development is adjacent to open space or within close proximity to wildland fuels or designated fire severity zones.

14 United States Environmental Protection Agency Website - Categories of Hazardous Waste Generators, Accessed January 2019.

15 Geotracker database, California State Water Resources Control Board, www.geotracker.waterboards.ca.gov, accessed May 2019.

The California Department of Forestry and Fire Protection (CALFIRE) has mapped areas of significant fire hazards in the state through its Fire and Resources Assessment Program (FRAP). These maps place areas of the state into different fire hazard severity zones (FHSZ) based on a hazard scoring system using subjective criteria for fuels, fire history, terrain influences, housing density, and occurrence of severe fire weather where urban conflagration could result in catastrophic losses.

As part of this mapping system, land where CALFIRE is responsible for wildland fire protection and generally located in unincorporated areas is classified as a State Responsibility Area (SRA). Federal lands within the planning area are classified as Federal Responsibility Area (FRA). Where local protection agencies, such as the City's Fire Department, are responsible for wildfire protection, the land is classified as a Local Responsibility Area (LRA). CALFIRE currently identifies the planning area as an SRA and FRA. In addition to establishing local, state or federal responsibility for wildfire protection in a specific area, CALFIRE designates areas as very high fire hazard severity (VHFHS) zones or non-VHFHS zones.

2.9.5 Existing Conditions

Hazardous Materials and Hazardous Waste

A hazardous material is defined as a substance or combination of substances that, because of its quantity, concentration, or physical, chemical or infectious characteristics, may: (1) cause or significantly contribute to an increase in mortality, or an increase in serious irreversible or incapacitating reversible illness; or, (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported, disposed of or otherwise managed.[16]

Exposure to hazardous materials and wastes could cause various short-term or long-term health effects. Health effects resulting from exposure to hazardous materials would be specific to each chemical or combination of chemicals. Possible health effects of exposure may be acute (immediate or of short-term severity), chronic (long-term, recurring, or resulting from repeated exposure), or both. Hazardous materials are commonly used in various commercial, agricultural, and industrial applications, as well as in residential uses.

GeoTracker Database

The Riverside County Department of Environmental Health Hazardous Materials Branch has been designated as the Certified Unified Program Agency (CUPA) for Riverside County. It is responsible for inspecting facilities that handle hazardous materials, generate hazardous waste, treat hazardous waste, own/operate underground storage tanks, own/operate aboveground petroleum storage tanks, or handle other materials subject to the California Accidental Release Program.[17] In addition, the Branch maintains an emergency response team that responds to hazardous materials and other environmental health emergencies.

In order to legally store hazardous substances (e.g. industrial solvents, flammable liquids, and petroleum products) underground, underground storage tank (UST) owners must apply for permits and demonstrate satisfactory tank maintenance and local groundwater testing to the local CUPA. The CUPAs then add these sites to the SWRCB's GeoTracker database (also known as Geographic Environment Information Management System (GEIMS) for public access).[18]

16 United States Environmental Protection Agency Website - Resource Conservation and Recovery Act (RCRA) and Federal Facilities, Accessed January 2019.
17 Riverside County Department of Environmental Health - Hazardous Materials (HazMat).
18 California Environmental Protection Agency – State Water Resources Control Board Website, https://www.waterboards.ca.gov/ust/electronic_submittal/about.shtml, Accessed January 2019.

GeoTracker is a database of sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater. GeoTracker contains records for sites that require cleanup, such as Leaking Underground Storage Tank (LUST) Sites, Department of Defense sites, and Cleanup Program Sites. GeoTracker also contains records for various unregulated projects as well as permitted facilities including irrigated lands, oil and gas production, operating permitted USTs, and land disposal sites. Water wells within 1,000 feet of a UST are at risk for contamination and must be documented in the permit. Exempt from permitting are small tanks (holding 1,100 gallons or less) on farms holding heating oil or machinery fuel, sumps, storm drains, and oil pipelines.

Transport of Hazardous Materials

Interstate 10 (I-10), State Highway 111 (East Palm Canyon Drive), and Union Pacific Railroad pass through the Coachella Valley, including the City of Cathedral City, and may be used for the transport of hazardous cargo into and out of the area. Hazardous cargo may include flammable liquids, corrosive materials, compressed and/or poisonous gases, explosives, flammable solids, and irritating materials.

The California Highway Patrol (CHP) and the California Department of Transportation (Caltrans) have primary responsibility for enforcing federal and state hazardous materials regulations and responding to transportation emergencies. The CHP enforces materials and hazardous waste labeling and packing regulations that prevent leakage and spills of material in transit and provide detailed information to cleanup crews in the event of an incident. Vehicle and equipment inspection, shipment preparation, container identification, and shipping documentation are all part of the responsibility of the CHP. The CHP conducts regular inspections of licensed transporters to assure regulatory compliance. Caltrans has emergency chemical spill identification teams at locations throughout the state. The Cathedral City Fire Department responds to local hazardous materials emergencies, such as chemical leakages, spills, and fires.

Illegal Dumping

Illegal dumping occurs throughout the valley, including the City of Cathedral City. It can contribute to the degradation of soil and groundwater quality, thereby increasing the potential for adverse effects on humans and the environment. Illegal dumping of hazardous wastes can occur in a variety of forms, including disposal of hazardous substances on unimproved land (including illegal disposal outside of landfills). In Riverside County, the Hazardous Materials Team, including both County Fire Department and Department of Environmental Health staff, safeguard groundwater sources and the environment from contamination due to accidental spills, illegal uses, and dumping of hazardous materials throughout the County.[19]

Hazardous Waste Disposal

Riverside County landfills are not permitted to accept hazardous waste. Instead, the County operates a Household Hazardous Waste (HHW) program to provide permanent and temporary HHW facilities at various locations to dispose of household hazardous wastes. A temporary HHW facility is located at Edom Hill Transfer Station at 70-100 Edom Hill Road; it accepts items such as paint products, automotive products, electronic waste, lawn & garden products, household products, health care products, and universal wastes.[20] The nearest permanent HHW facility to the planning area is located in Palm Springs at 1100 Vella Road; it accepts the following items:[21]

19 County of Riverside Website - Livability and the Environment, https://countyofriverside.us/AbouttheCounty/StrategicPlan/LivabilityandtheEnvironment.aspx, Accessed January 2019.

20 County of Riverside Website - 2019 Riverside County Household Hazardous Waste (HHW) Collection, https://www.rcwaste.org/Portals/0/Files/HW/HHWflyer.PDF, Accessed May 2019.

21 County of Riverside Website - Palm Springs Permanent HHW Facility, https://www.rcwaste.org/hhw/palmsprings, Accessed May 2019.

• Used Oil and Filters • Latex/Oil-Based Paint • Fluorescent Tubes/Bulbs • Pesticides • Cleaners • BBQ & Camp Size Propane • Aerosol Cans • Antifreeze	• Auto/Household Batteries • Garden Chemicals • Pool Chlorine • TVs and Computers • Electronic Waste • Sharps • Unused medication (except controlled substances)

The County also operates a Business Hazardous Waste program which provides disposal and recycling services to its residents. Businesses and government agencies that generate small quantities of hazardous waste (e.g. Fluorescent Lamps Batteries, Propane Tanks, Aerosol Cans, Automotive Fluids including Motor oil, Lubricants, Oil Filters, and Antifreeze Landscaping Chemicals including Pesticides, Herbicides, Fungicides, and Fertilizers, and Latex and Oil-Based Paint) can participate in the Riverside County Department of Waste Resources' Very Small Quantity Generator (VSQG) Program to properly dispose of their hazardous waste. In addition to these programs, Cathedral City also offers a Bulky Item (Large Item) Collection Program, Electronic and Tire Recycling Programs, Safe Syringe & Needle Disposal Programs, and Medication TakeAway Program to properly collect and/or recycle wastes.[22]

Wildfires

Climate

The planning area is located in the Coachella Valley whose climate is characterized by hot summers, mild winters, and very little annual rainfall. Precipitation is less than six (6) inches annually in the region and occurs mostly in the winter months. Temperatures exceed 100° F, on average, four months each year, with daily highs exceeding 105° F during July and August. During the season, daytime highs are quite mild, with an average of 70° F in January, with early morning lows around 40° F.

The Coachella Valley is exposed to frequent gusty winds, and prevailing winds are west to east. The strongest and most persistent winds typically occur immediately east of Banning Pass, which has been developed as a wind power generation resource area. Aside from the Banning Pass, the wind conditions in the remainder of the valley are geographically distinct. Strongest winds occur most often in the spring and summer and tend to occur in the low-lying, central valley, while lighter winds tend to occur closer to the foothills.

Climate and wind patterns primarily control the direction and the spread of wildland fire and affect fire behavior by reducing fuel moisture, increasing the oxygen supply for combustion, preheating the fuels, and bending the flames closer to the unburned fuels ahead of the fire.

Slope and Topography

In addition to weather patterns and climate, topography influences wildland fire to such an extent that slope conditions can often become a critical landscape fire factor. Conditions such as the length and steepness of slopes, direction of exposure, and/or overall ruggedness of terrain influence the potential intensity of wildland fires and/or the rates at which they may spread. Most importantly, fires on lower slopes can be a substantial threat because of a "wind effect" which accelerates the an up-slope spread of fire.[23] Consequently, fires in rugged terrain and on steep slopes can be more difficult for firefighters to contain.

[22] Cathedral City Website - http://www.cathedralcity.gov/services/recycling-refuse-energy-programs/bulky-item-large-item-collection-program, Accessed May 2019.

[23] Barros, Ceres et al. "Extreme climate events counteract the effects of climate and land-use changes in Alpine treelines" Journal of applied ecology vol. 54,1 (2016): 39-50.

The San Jacinto and Santa Rosa Mountains in this region rise from 6,000 to 10,000 feet above mean sea level and are characterized by sharp traverse ridges and steep canyons.[24] Slope steepness and the ruggedness of terrain is most extreme in the San Jacinto Mountains, which do not bound the City planning area. The Santa Rosa Mountain foothills include less extreme terrain and there are a few fire access roads into the areas above the urbanized and urbanizing portions of the City. Foothill and mountain terrain can significantly affect firefighting accessibility and response times. As slope gradients increase, the ability to utilize fire trucks and bulldozers to directly attack fires decreases. Likewise, hand crews are less likely to establish fire-containment lines in areas of excessively steep slopes due to lack of accessibility and firefighter safety concerns. The development of spot fires ahead of fire-lines and the hazards of rolling and blowing firebrands become progressively more serious as slope increases.

Wildland Fire Risk

Wildland fires are inevitable and are a part of the natural regeneration cycle of the native landscape. Structure losses are not necessarily directly due to wildland fires but may also result from inappropriate siting of structures, flammable ornamental landscaping, and accessory structures.

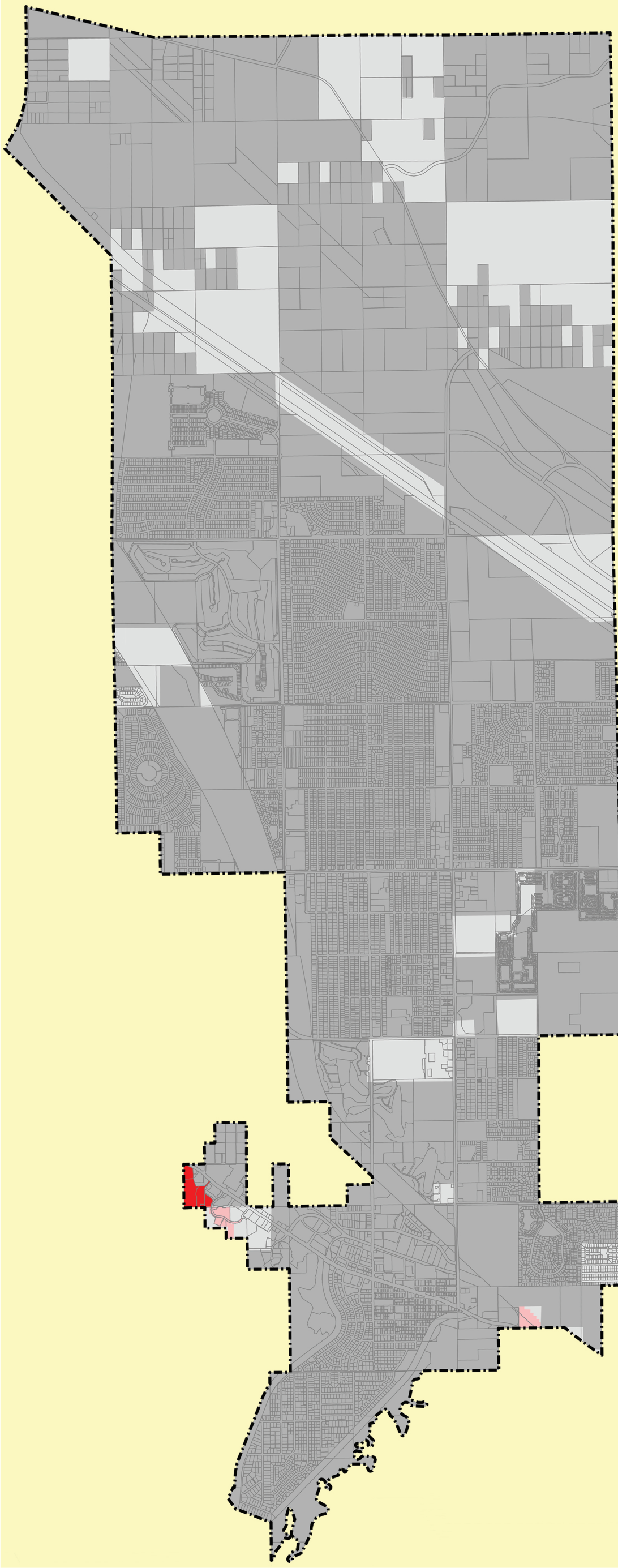
Wildfire hazards to a developed community are highest in areas near the wildland-urban interface (WUI). As noted above, CALFIRE designates areas as very high fire hazard severity (VHFHS) zones or non-VHFHS zones. [25] A small southwestern portion and an equally small area in the southeast in the vicinity of East Palm Canyon are designated as a VHFHS fire hazard zone within the Local Responsibility Area and State or Federal Responsibility Area, the State of California. No wildland fires have occurred within the planning area. The two mapped areas that delineate urbanized lands as occurring within a VHFHS zone may be a mapping error but may also meet certain criteria for being so mapped.[26] The City will continue to coordinate with CALFIRE on refinements to current fire hazard mapping in the City.

Access and Emergency Response

Immediate access to impacted areas by emergency personnel and supplies is essential during a wildfire. East Palm Canyon Drive, Dinah Shore Drive (Mid-Valley Parkway), Ramon Road, Date Palm Drive, and Interstate-10 are major intercity and regional access routes serving Cathedral City. These arteries, including their bridges and overpasses, could be blocked or damaged in the event of a major disaster, including urban wildfires. The loss of freeway overpasses, bridges over the Whitewater River Stormwater Channel, or the closing of roads due to rockfalls or landslides could impede the delivery of emergency services and supplies.

To reduce the wildfire risk, the City of Cathedral City has adopted the 2016 edition of the California Building Standards Code and the 2016 edition of the California Fire Code.

24 Mount San Jacinto State Park and Wilderness, https://www.parks.ca.gov/pages/636/files/MtSanJacintoSPWeb2016.pdf, Accessed March 2019.
25 CalFire Fire Hazard Zone Map, 2010. See Exhibit 2.9-1 of this EIR.
26 Personal communication, David Sapsis, Wildland Fire Scientist, Fire and Resource Assessment Program, CALFIRE. July 11, 2019



Fire Hazard Severity Zones

Local Responsibility Area	State or Federal Responsibility Areas
VHFHSZ	VHFHSZ
Non-VHFHSZ	Non-VHFHSZ

City Boundary

Parcels

Government Code 51175-89 directs the California Department of Forestry and Fire Protection (CAL FIRE) to identify areas of very high fire hazard severity zones within Local Responsibility Areas (LRA). Mapping of the areas, referred to as Very High Fire Hazard Severity Zones (VHFHSZ), is based on data and models of, **potential** fuels over a 30-50 year time horizon and their associated expected fire behavior, and expected burn probabilities to quantify the likelihood and nature of vegetation fire exposure (including firebrands) to buildings. Details on the project and specific modeling methodology can be found at http://frap.cdf.ca.gov/projects/hazard/methods.htm. Local Responsibility Area VHFHSZ maps were initially developed in the mid-1990s and are now being updated based on improved science, mapping techniques, and data.

In late 2005 to be effective in 2008, the California Building Commission adopted California Building Code Chapter 7A requiring new buildings in VH FHSZs to use ignition resistant construction methods and materials. These new codes include provisions to improve the ignition resistance of buildings, especially from firebrands. The updated very high fire hazard severity zones will be used by building officials for new building permits in LRA. The updated zones will also be used to identify property whose owners must comply with natural hazards disclosure requirements at time of property sale and 100 foot defensible space clearance. It is likely that the fire hazard severity zones will be used for updates to the safety element of general plans.

This specific map is based on a geographic information system dataset that depicts final CAL FIRE recommendations for Very High FHSZs within the local jurisdiction. The process of finalizing these boundaries involved an extensive local review process, the details of which are available at http://frap.cdf.ca.gov/projects/hazard/btnet/ (click on "Continue as guest without logging in"). Local government has 120 days to designate, by ordinance, very high fire hazard severity zones within its jurisdiction after receiving the recommendation. Local government can add additional VHFHSZs. There is no requirement for local government to report their final action to CAL FIRE when the recommended zones are adopted. Consequently, users are directed to the appropriate local entity (county, city, fire department, or Fire Protection District) to determine the status of the local fire hazard severity zone ordinance.

0 2 Miles

N

07.11.19 Source: CalFire December 2009

TERRA NOVA® PLANNING & RESEARCH, INC.

City of Cathedral City General Plan EIR
Fire Hazard Severity Zones
Cathedral City, California

Cathedral City

Exhibit
2.9-1

2.9.6 Project Impacts

Hazards and Hazardous Materials

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Future development pursuant to the proposed General Plan Update may utilize or generate hazardous materials or wastes; however, they are not expected to occur in quantities that would pose a significant hazard to the public or the environment. The proposed General Plan land use map does not include heavy industry or other land uses that would generate or use large quantities of hazardous materials. As the planning area builds out, small business operations, individual households, and maintenance activities are likely to utilize hazardous materials in limited quantities, such as paints, thinners, cleaning solvents, fertilizers, pesticides, motor oil, and automotive substances. These materials would be stored and used at individual sites and may create a public health and safety hazard through routine transport, use, or disposal. Construction activities associated with new development and redevelopment could also involve the use of hazardous materials. These may include paints, thinners, solvents, acids, curing compounds, grease, oils, and other chemicals which could pose risks to construction workers or lead to soil and groundwater contamination, if not properly stored, used, or disposed.

Existing regulations provide guidelines to users to prevent potential risks associated with hazardous materials. Compliance with existing hazardous material regulations would prevent undue hazards. Other regulations, including the Hazardous Material Transportation Act, Resource Conservation and Recovery Act, California Hazardous Waste Control Act, and Certified Unified Program Agency (CUPA), ensure that industrial and commercial users, generators, and transporters provide operational safety and emergency response measures so that no major threats to public health and safety occur. The Household Hazardous Waste facility in Palm Springs accepts small quantities of hazardous materials for proper disposal, discouraging the dumping of these materials into garbage, storm drains, or the ground.[27]

The Hazards and Hazardous Materials Sub-Element of the proposed General Plan Update includes goals, policies, and programs that promote a safe community and environment for its residents. The City is directed to utilize the County's and Regional Water Quality Control Board's available resources to update data about contaminated sites and facilitate the adequate and timely cleanup of existing and future contaminated sites within the City and its sphere-of-influence (Policies 1 and 2). Policy 4 requires the City to designate appropriate access routes to facilitate the transport of hazardous and toxic materials and wastes. Policy 11 ensures sufficient distance of hazardous facilities and schools, hospitals, residential areas, and other sensitive receptors to minimize exposure to hazardous materials. Policies 12 through 15 require the City to discourage use of large quantities of hazardous materials and hazardous fuels in the planning area and to engage the community in programs to reduce and recycle hazardous materials, and to oversee remediation of toxic sites.

Implementation of the policies proposed in the General Plan Safety Element and compliance with hazardous material regulations would reduce impacts to less than significant levels.

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

[27] Cathedral City Website - Household Hazardous Waste Facility.

Adoption and implementation of the proposed General Plan Update would enable development and redevelopment of various land uses (e.g., residential, commercial, industrial, and institutional uses) in the planning area which are not expected to utilize or generate large quantities of hazardous materials. Cathedral City does not contain heavy industry which can be associated with high risks of accidental hazardous materials release. The proposed Land Use Plan allows light industrial uses and separates them from schools, hospitals, and residential areas to the greatest extent practical. The majority of industrial lands are located in the northern portion of the planning area in proximity to I-10 and the railroad. Light industry would be subject to various State and federal regulations regarding the storage, use, handling, transport or disposal of hazardous materials and hazardous wastes. Compliance with such regulations would avoid the creation of a significant hazard to the public and reduce the potential for the release of hazardous materials into the environment.

Policy 3 of the Hazards and Hazardous Materials Sub-Element of the proposed General Plan update requires the City to thoroughly evaluate development proposals for lands directly adjacent or in proximity to sites known to be contaminated with hazardous or toxic materials which could create significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions. Policy 4 requires the City to designate appropriate access routes to facilitate the transport of hazardous and toxic materials and wastes. The Fire Department also maintains a citywide Local Hazard Mitigation Program to provide emergency services in the event of a hazardous spill or airborne release (Policy 5). Policy 7 requires the City to oppose plans for hazardous or toxic waste dumps, landfills, or industrial processes that may potentially adversely affect the City and its Sphere-of-Influence. Policy 9 requires the travel route for the transport of hazardous materials and wastes to have adequate capacity to safely accommodate additional trucks and avoid the residential areas. Policy 10 requires the City to identify the hazardous sites susceptible to leak or collapse during earthquakes, and Policy 11 requires the City regulate properly and introduce buffer zones between the hazardous facilities and sensitive facilities and/or receptors such as schools, hospitals, and residential areas. Policy 13 encourages and promotes practices in the community to reduce the use of hazardous materials and the generation of hazardous waste at their source, recycle the remaining hazardous wastes for reuse, and treat those wastes which cannot be reduced at the source or recycled.

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 goals, policies, and programs 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 would be less than significant.

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

The General Plan Update Land Use Plan allows various land uses close to the existing or new schools. The California Education Code (section 17210 et seq.) outlines the requirements for siting school facilities near or on known or suspected hazardous materials sites, or near facilities that create hazardous air emissions, handle hazardous or acutely hazardous materials, substances, or waste. The code requires that, prior to commencing the acquisition of property for a new school site, an environmental site investigation be completed to determine the health and safety risks (if any) associated with a site. Recent legislation and changes to the Education Code identify DTSC's role in the assessment, investigation, and cleanup of proposed school sites. All proposed school sites that could be developed under the proposed General Plan Update that receive State funding for acquisition and/or construction must go through a comprehensive investigation and cleanup process under DTSC oversight. Policy 11 of the proposed Hazards and Hazardous Materials Sub-Element restricts the location and number of hazardous facilities close to the schools, hospitals, and residential areas. This policy also requires sufficient buffer zones between the hazardous facilities and sensitive facilities and/or receptors, including school sites.

The proposed General Plan does not propose any changes to existing federal, state or local school district policies or procedures that minimize risks to school facilities, students and faculty. Impacts of the proposed General Plan as it pertains to hazardous materials emissions in proximity to a school would be less than significant. No project-specific mitigation is required.

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

According to a California Department of Toxic Substances Control Cortese and EnviroStor database search[28], there are no active "cleanup sites" or "Hazardous Waste and Substances Sites" pursuant to Government Code Section 65962.5 in the City. Therefore, the General Plan Update would not facilitate development or other projects on such sites that would create a significant hazard to the public or the environment. The proposed General Plan does encourage and facilitate the adequate and timely cleanup of existing and future contaminated sites within the City and its sphere-of-influence (Policy 2 of the Hazards and Hazardous Materials Sub-Element). No impact would occur.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

The Palm Springs International Airport (PSP) is located within 5 miles of most portions of Cathedral City and provides an important access point for helicopter and fixed-wing aircraft. Projected population growth during the General Plan Update planning period would result in new development or redevelopment, some of which could occur in the vicinity of PSP. New development near aviation facilities, particularly multi-story structures or developments with aerial features such as antennas, could create hazards to aviation. Based on the California Airport Land Use Planning Handbook (Caltrans, 2011),[29] the Airport Land Use Compatibility Plan (ALUCP) establishes the criteria by which safety hazards for developments close to airports can be evaluated. These criteria are intended to reduce the risk of an off-airport aircraft accident by limiting residential densities and concentrations of people in locations near airports. Additional methods by which hazards to aircraft and people and property on the ground are avoided are achieved through limiting the height of structures, trees, and other objects that might penetrate the airspace as defined by Federal Aviation Regulations, Part 77, Objects Affecting Navigable Airspace, the United States Standard for Terminal Instrument Procedures (TERPS), and countywide policies in the Riverside County Airport Land Use Compatibility Plan.[30]

The City has adopted goals, policies, and programs in the Hazards and Hazardous Materials and Emergency Preparedness Sub-Elements of the proposed General Plan Update to promote a safe community and environment for its residents, including the land uses located close to the airport. Policy 8 in the Emergency Preparedness Sub-Element requires the City to minimize the risk of hazards associated with aircraft operations of the Palm Springs International Airport through the adoption and implementation of land use plans and policies consistent with the County Airport Land Use Compatibility Plan. The City shall work to achieve consistency between the General Plan land use and related policies and the Palm Springs International Airport Land Use Compatibility Plan, as appropriate. Measures may include restrictions on permitted land uses, limitations on the intensity of a use, and development criteria such as height restrictions (Policy 4 of the Safety Element).

28 Cortese and EnviroStor web database search conducted in January 2019.
29 California Airport Land Use Planning Handbook (Caltrans 2011).
30 Riverside County Airport Land Use Compatibility Plan, Volume 1-Policy Document (2004).

Future development as a result of the adoption of the proposed General Plan updates will be in compliance with regulations established by the State Department of Health Services and the Riverside County ALUCP, and policies and implementing actions found in the 2040 General Plan. This impact is less than significant.

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The City has a developed roadway network that provides emergency access and evacuation routes to existing development. Interstate-10 runs through the central portion of the City and connects it to the other cities of the Coachella Valley. East Palm Canyon Drive (State Highway 111) connects the City with the City of Palm Springs on the west and Rancho Mirage on the east. Both roadways are part of the City's and County's emergency plans and are used for emergency evacuation.

In much of the City, future development facilitated by the proposed General Plan would be located on sites that have existing access to public roadways and would not interfere with emergency response or evacuation of adjacent sites. Future development north of I-10, where land is currently vacant, would require new roadways that would be incorporated into emergency response and evacuation plans.

In the proposed General Plan Update, the City would identify and establish emergency evacuation and supply routes and plans to preserve or reestablish the use of East Palm Canyon Drive, Dinah Shore Drive, Ramon Road, Vista Chino, I-10 and other essential transportation routes (Policy 3 of the Emergency Preparedness Sub-Element). Policy 10 guides the City to review its emergency preparedness plans to ensure that it includes programs that address the need for social and emotional support following a major disaster or emergency. Palm Springs Unified School District, the Salvation Army, and other organizations that can serve as emergency shelters for displaced residents in the event of a major disaster would help the City to implement its emergency response plan (Policy 11 of the Emergency Preparedness Sub-Element).

Implementation of these and other General Plan Update goals, policies, and programs would ensure that the proposed General Plan would not physically interfere with an adopted emergency response plan or emergency evacuation plan. Project impacts would be less than significant.

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

The majority of the City is located on the low-lying valley floor, and outside of the mapped VHFHS wildfire hazard zone. As shown in Exhibit 2.9-1, a limited area of southwestern and southeast City limits is within this VHFHS fire hazard severity zone. It occurs on the slopes of the Santa Rosa Mountains and extends into urbanized portions of the City. The proposed General Plan designates these area as Business Park (BP) and General Commercial (CG) and designates downslope lands as Open Space–Other (OS-O) with limited areas in Hillside Reserve, which would minimize potential risks to people or structures. Those portions mapped in the VHFHS and referenced as State or Federal Responsibility Area are within already urbanized areas and may be in error.

The General Plan Update would not result in increased exposure of people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. Areas of the highest fire potential are located in the foothills and mountain areas, which are designated as open space and limited areas of Hillside Reserve (1 dwelling unit per 20 acres). Portions of the Cathedral Cove neighborhood are designated very high, high and moderate fire hazard, with the greatest threat mapped in the highest elevations of the cove. Farther west and along and within the foothills, lands are designated with a very high, high and moderate fire hazard. This includes very high hazard designations on portions of the Canyon Plaza West development, with the moderate hazard zone extending across East Palm Canyon Drive and into fully urbanized lands. Lands on the northern portions of the City and extending from south of the UPRR corridor and north into the Indio Hills, are designated as a moderate fire hazard area. The balance of the City is designated as Urban Unzoned.

As noted above, it is possible that delineations shown (in pink) on Exhibit 2.9-1 may overstate the fire risks in these two small portions of the City. Earlier versions of these maps show that all of the current City limits occur within a low or very low fire hazard zone. Regardless, final mapping with either that shown on Exhibit 2.9-1 or a more up to date mapping does not affect land planning decisions in the City. Potentially affected areas are already developed or are being redeveloped with non-residential uses, including commercial and industrial (business park). Therefore, impacts associated with fire risk will not change.[31]

Implementation of the proposed General Plan update would result in less than significant impacts to wildfire risks.

Wildfire

a) Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

Implementation of the General Plan Update could generate an increase in the residential and employee population in the City as a result of the construction of new housing, and commercial/retail and industrial growth. New developments could, in turn, result in increased traffic. These new potential sources of congestion on local roads and freeways could increase response times for medical or other emergencies and could delay the evacuation of the population in an emergency.

As the General Plan planning area builds out, alternative routes, secondary points of access, cul-de-sac turnarounds, and other features that improve traffic circulation are planned into new development and redevelopment projects and reviewed during the City's internal review process, which includes review by the Fire and Police Departments. The proposed General Plan update does not propose changes to circulation in the City or to physical orientation of the planning area that could interfere with the City's emergency response or evacuation procedures. In addition, the General Plan Update does not propose major changes to existing emergency response facilities or personnel. Furthermore, goals, policies, and programs set forth in the Circulation and Mobility Element do not involve modifications to roadways in any manner that would impede response to an emergency.

Goal 1 of the Emergency Preparedness Sub-Element identifies policies and programs to update hazard mitigation and emergency services and maximizes response capabilities of the various agencies within the planning area. Policy 3 requires the City to identify and establish emergency evacuation and supply routes and plans to preserve or reestablish the use of East Palm Canyon Drive, Dinah Shore Drive, Ramon Road, Vista Chino, Interstate-10 and other essential transportation routes. In addition, the goals, policies, and programs identified in the Circulation and Mobility Element of the General Plan Update are proposed to minimize traffic impacts to the greatest extent practicable, which would reduce impacts relative to interference with emergency response and evacuation plans. The Circulation and Mobility Element also encourages an increase in pedestrian and bicycle (rather than vehicle) connections between and within neighborhoods, thereby further reducing traffic congestion.

In summary, existing roadway modifications and construction of new roadways would occur to accommodate future growth. However, these activities will be done according to City design standards consistent with Policy 5 of the Circulation and Mobility Element. Future roadways in the planning area would also be required to demonstrate compliance with the City's Fire Department requirements pertaining to access/egress to ensure adequate emergency access. These efforts would minimize the potential for a roadway design that could hinder emergency response or evacuation. Implementation of the proposed General Plan update would result in a less than significant impact to the City's emergency response plan or emergency evacuation plan.

[31] Personal communication and mapping, David Sapsis, Wildland Fire Scientist, Fire and Resource Assessment Program, CALFIRE. July 11, 2019

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

The proposed General Plan Update is a policy document that, in and of itself, will not exacerbate wildfire risks. However, it will facilitate future development in the planning area; however, future development will be required to be conducted in a manner that is sensitive to and minimizes wildfire risks and the potential exposure of occupants to pollutant concentrations and uncontrolled spread of wildfire.

Wildfire hazards to a developed community are highest in areas near the wildland-urban interface (WUI). As noted above, CALFIRE designates areas as very high fire hazard severity (VHFHS) zones or non-VHFHS zones.[32] Two small portions of the City at the southwestern and southeastern city limits are designated as a VHFHS fire hazard zone within the Local Responsibility Area and the State and Federal Responsibility Area by the State of California. No wildland fires have occurred within the planning area.

A very limited portion of the City south of East Palm Canyon Drive and west of Canyon Plaza are within a mapped fire hazard zone. These lands are designated as a very high zone (VHFHS) within the Local Responsibility Area and State and Federal Responsibility Area by the State of California.[33] Currently, these lands are vacant and are designated as Open Space–Other (OS-O) on the proposed General Plan land use map, which will prevent future development, thereby minimizing potential fire risks to people and structures. Adjacent lands that are also located downslope and at or near the toe of the foothills are currently developed with commercial uses. The proposed General Plan land use map designates these lands for continued commercial uses and future business park development. No residential development is provided for in this area. Therefore, implementation of the proposed General Plan will not exacerbate wildfire risks or potential exposure to wildfire-related pollutants.

The General Plan Update would facilitate future development on vacant land on the valley floor where strong, sustained winds can occur. During construction, strict adherence to the California Fire Code and other safety regulations will ensure that contractors minimize wildfire risks, and in turn, pollutant concentrations associated with wildfire. Future development projects would be evaluated and monitored on a project-by-project basis to assure regulations are properly implemented. Implementation of the proposed General Plan update would result in less than significant impacts associated with wildfire risks and associated pollutants.

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

Future development and redevelopment projects within the planning area under the proposed General Plan Update could require installation of site-specific infrastructure, such as new roads, water sources and fire hydrants, power lines, and other utilities. Potential impacts of such infrastructure would be evaluated on a project-by-project basis and would be required to meet applicable safety requirements so as to minimize fire risks and environment impacts to the greatest extent practicable.

As discussed above, two small portions adjacent to the southwest and southeast city limits are designated as very high hazard zones within the Local Responsibility Area and State and Federal Responsibility Area by the State of California[34]; However, upslope portions of these lands are designated as Open Space–Other and/or Hillside Reserve on the proposed General Plan land use map, which will reduce or preclude the future building of urban infrastructure and potential associated fire risks. The majority of the City is not within a wildfire zone, and the proposed General Plan will have no impact on fire risks in these areas.

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32 CalFire Fire Hazard Zone Map, 2010. See Exhibit 2.9-1 of this EIR. Personal communication, David Sapsis, Wildland Fire Scientist, Fire and Resource Assessment Program, CALFIRE. July 11, 2019

33 Ibid.

34 Ibid.

Policy 1 of the Safety Element requires the City to promote the enhanced resilience of future water, sewer, electric and other utilities, the retrofit and rehabilitation of existing weak structures and lifeline utilities, and the relocation or strengthening of certain critical facilities to increase public safety and minimize disruption of critical infrastructure. Assuming compliance with the policies embedded in the General Plan Update, future development and redevelopment would not result in significant adverse impacts associated with utility infrastructures.
Impacts associated with the proposed General Plan Update and future infrastructure development will not exacerbate fire risk or result in temporary or ongoing impacts to the environment; therefore, impacts in this regard would be less than significant.

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

The majority of the City is located on the low-lying valley floor, which is outside of wildfire hazard areas and, therefore, has little to no potential for hazards resulting from post-wildfire flooding, landslide, or slope instability. Land north of I-10 is mapped as being within a moderate wildfire hazard zone although, as noted above, this delineation is not supported by physical conditions in this area and the mapped designations are being further investigated. Therefore, current available mapping notwithstanding, these areas are outside of wildfire hazard areas and, therefore, not subject to fire-related slope instability or flooding hazards.

As shown in Exhibit 2.9-1, limited areas in the southwestern and southeastern portions of Cathedral City are within a very high fire hazard severity zone. In the Cathedral Cove neighborhood, future fires and exacerbated stormwater runoff from upslope areas of the City are isolated from surrounding development by flood control channels and associated levees. While these areas may also be susceptible to slope instability and flooding after a wildfire lives and property are protected by the aforementioned drainage facilities. West of the cove neighborhood and along the toe of slope, the proposed General Plan designates this area as Business Park (BP) and General Commercial (CG) and designates slopes above the toe of the foothills as Open Space–Other (OS-O), which would avoid or minimize potential risks to people or structures. Slope setbacks, the limited watersheds and the limited drainage facilities in these areas also act as a buffer between the slopes of the Santa Rosa Mountains and downslope development by absorbing much of the potential damage from landslides and rock falls and providing some level of protection to habitable development.

Policies 3 and 4 of the Geotechnical Sub-Element require new development to conduct geological and geotechnical investigations before construction. It also requires new development to be constructed according to the Uniform Building Code and the California Fire Code. Assuming compliance with the policies embedded in the General Plan Update, future development and redevelopment would not result in significant adverse impacts associated with post-fire risks. Implementation of the Proposed Project would not expose people or structures to significant downslope or downstream flooding or landslides, post-fire slope instability, or drainage changes.

2.9.7 Mitigation Measures

As discussed above, the goals, policies and programs set forth in the various General Plan elements serve to avoid, minimize and mitigate potential impacts of hazards, hazardous materials and wildfires in and near the City. In addition to the policies and programs set forth in the Safety Element, the following mitigation measures will serve to further avoid, minimize and mitigate potential impacts to City lands, buildings and other structures and human lives from the hazards and hazardous materials identified in this EIR. They are not meant to be all-inclusive and new or revised local and state requirements may also apply.

HAZ-1 Prior to issuance of building permits for any new development or substantial redevelopment within the planning area that proposes to use large quantities of hazardous materials, the City shall review the project application for compatibility with existing and planned land uses. The review process shall focus on the location of existing and planned sensitive receptors (e.g., residential uses, schools, etc.) and determine whether the proposed usage would expose these sensitive receptors to unacceptable safety risks. If necessary, the City shall condition the proposed hazardous materials user to incorporate appropriate protection measures.

HAZ-2 The siting of industrial facilities which involve storage of hazardous, flammable or explosive materials shall be conducted in a manner that will ensure the highest level of safety in strict conformance with the Uniform Fire Code, California Fire Code and other applicable regulations.

HAZ-3 New and substantially renovated development at or near the slopes of the Santa Rosa Mountains or the Indio Hills shall be thoroughly reviewed for potential exposure to a wildfire risk, and shall also be assessed for the potential of urban development in these areas to facilitate the spread of a wildfire into other developed portions of the community.

HAZ-4 The City shall periodically review and update the Local Hazard Mitigation Plan and the Emergency Operations Plan, including but not limited to fire protection, law enforcement, communications, alternative access, public health services, damage assessment and other emergency response parameters of Emergency Operations Plan.

HAZ-5 The City shall evaluate the full range of physical and other constraints to the effective implementation of the Emergency Operations Plan, shall develop or update strategic planning to address and minimize the effects of these constraints, and periodically report to the City Council on progress made in addressing these constraints.

HAZ-6 The City shall provide information on and encourage residents to plant and maintain drought-resistant, fire-retardant landscape species to reduce the risk of brush fire and soil erosion in areas adjacent to canyons; and to develop stringent site design and maintenance standards for areas with high fire hazard or soil erosion potential.

2.9.8 Significance After Mitigation

With the implementation of Safety Element policies and programs, and the mitigation measures set forth above, the proposed General Plan Update impacts with regard to hazards, hazardous materials and wildfires will be less than significant.

2.9.9 Cumulative Impacts

Hazards and Hazardous Materials
Existing development in the City and surrounding communities can pose risks to public health and safety, as they relate to hazards and hazardous materials; however, exposure to hazardous materials is usually site-specific and not cumulative in nature. As the General Plan planning area builds out, future development and/or redevelopment in the City may increase these risks, particularly as more facilities or operations utilize hazardous materials and are located near airports, railroads, and other corridors used to transport hazardous materials.

Future development and redevelopment pursuant to the proposed General Plan Update would be required to comply with applicable regulations that limit the transport, use, storage, and disposal of hazardous materials and notify the public of a proposed use that involves hazardous materials. Hazardous materials use 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, issues permits to and conducts inspections of businesses that use, store, or handle quantities of hazardous materials and/or waste.

Considering the protections granted by local, state, and federal agencies and their requirements for the use of hazardous materials, the overall cumulative impact would not be significant, and the proposed General Plan Update's incremental contribution to cumulative hazards and hazardous materials impacts would be less than cumulatively considerable.

Wildfire

A cumulative wildland fire impact would occur if multiple projects were to increase the frequency of fires in the same location. As mentioned above, the majority of the City and surrounding communities are located on the low-lying valley floor, which are outside of wildfire hazard areas and, therefore, have little to no potential for hazards resulting from wildfires or post-wildfire flooding, landslide, or slope instability. Also, these slope and mountainous areas are designated predominantly as Open Space with very limited areas designated Hillside Reserve, which serves to further reduce potential wildfire hazards. The General Plan's contribution to increased wildfire hazards would not be cumulatively considerable.

2.10 Hydrology and Water Quality

2.10.1 Introduction

This section provides background information regarding hydrology and water quality conditions within the City, and an assessment of the potential impacts of implementing the proposed General Plan Update. It also analyzes the potential impacts associated with the proposed General Plan updates to regional and local hydrology and water quality. This section also describes the regulatory environment and thresholds of significance used to evaluate the proposed General Plan update project.

2.10.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, the proposed Cathedral City General Plan Update would have significant impacts on hydrology and water quality if it would:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
    i) result in substantial erosion or siltation on- or off-site;
    ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
    iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
    iv) impede or redirect flood flows?
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

2.10.3 Regulatory Framework

Federal

National Flood Insurance Program

The Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program (NFIP), which provides flood insurance, floodplain management, and flood hazard mapping. Communities subject to flood hazards voluntarily participate in the NFIP by adopting and enforcing floodplain management ordinances to reduce the potential for flood damage. In turn, the NFIP offers federally funded flood insurance to homeowners, renters, and business owners in participating communities. Under this program, FEMA produces Flood Insurance Rate Maps (FIRM) that identify properties and buildings in flood insurance risk areas. Flood hazards related to storm events are generally described in terms of 100- or 500-year floods with a 1 percent and 0.2 percent chance, respectively, of occurring every year.

CVWD, Riverside County, and the City of Cathedral City are participants in the NFIP. As such, residents within these jurisdictions are eligible to purchase flood insurance if located in areas with a high risk of flooding. FEMA requires each participating jurisdiction to adopt a floodplain management ordinance to ensure that any new construction and/or substantial improvement within a mapped floodplain occurs in a manner that reduces potential damage to the public and property, and discourages new development within floodways.

Clean Water Act

The Clean Water Act (CWA) was enacted by Congress in 1972 and amended several times since inception. It is the primary federal law regulating water quality in the United States, and forms the basis for several state and local laws throughout the nation. Its objective is to reduce or eliminate water pollution in the nation's rivers, streams, lakes, and coastal waters. The CWA prescribes the basic federal laws for regulating discharges of pollutants and sets minimum water quality standards for all "waters of the United States."

Several mechanisms are employed to control domestic, industrial, and agricultural pollution under the CWA. At the federal level, the CWA is administered by the U.S. Environmental Protection Agency (EPA). At the state and regional level, the CWA is administered and enforced by the State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCB). The State of California has developed a number of water quality laws, rules, and regulations, in part to assist in the implementation of the CWA and related federally mandated water quality requirements. In many cases, the federal requirements set minimum standards and policies, and the laws, rules, and regulations adopted by the State and regional boards exceed the federal requirements.

CWA Section 303(d) lists polluted water bodies which require further attention to support future beneficial uses. For each listed water body, the State of California is required to establish Total Maximum Daily Load (TMDL) criteria for the pollutant(s) causing conditions of impairment.

U.S. Army Corps of Engineers

The U.S. Army Corps of Engineers (USACOE) is a federal agency that serves as a public engineering, design, and construction management agency. The USACOE is responsible for investigating, developing, and maintaining water and environmental resources throughout the nation. The CWA authorizes the USACOE to issue permits for discharges of dredged or fill (collectively referred to as fill) material into "waters of the United States." Projects for which fill permits are issued must be in compliance with EPA guidelines. The guidelines also prohibit discharges that would cause significant degradation of the aquatic environment or violate state water quality standards. The CWA grants the EPA veto authority over the USACOE if it determines that a project will have an unacceptable adverse effect on municipal water supplies, shellfish beds, and fishing areas.

National Pollutant Discharge Elimination System

The CWA has nationally regulated the discharge of pollutants to the waters of the U.S. from any point source since 1972. In 1987, amendments to the CWA added section 402(p), which established a framework for regulating nonpoint source (NPS) stormwater discharges under the National Pollutant Discharge Elimination System (NPDES). The Phase I NPDES stormwater program regulates stormwater discharges from industrial facilities, large and medium-sized municipal separate storm sewer systems (those serving more than 100,000 persons), and construction sites that disturb five or more acres of land. Under the program, the project sponsor is required to comply with two NPDES permit requirements.

The NPDES General Construction Permit Requirements apply to clearing, grading, and disturbances to the ground, such as excavation. Construction activities on one or more acres are subject to a series of permitting requirements contained in the NPDES General Construction Permit. This permit requires the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that includes Best Management Practices (BMPs) to be implemented during project construction. The NPDES program provides two levels of control for the protection of water quality: technology-based limits and water quality-based limits. Technology-based limits are based on the ability of dischargers to treat the water, while water quality-based limits are required if technology-based limits are not sufficient to protect the water body. The water quality-based effluent limitations required to meet water quality criteria in the receiving water are based on the National Toxics Rule, the California Toxics Rule, and the Basin Plan (see below under Porter-Cologne Water Quality Control Act).

Regional Water Quality Control Board – 401 Certification

Pursuant to Section 401 of the CWA and EPA 404(b)(1) guidelines, in order for a USACOE federal permit applicant to conduct any activity that may result in discharge into navigable waters, the applicant must provide a certification from the RWQCB that such discharge will comply with State water quality standards. The RWCQB has a policy of no-net-loss of wetlands and typically requires mitigation for all impact to wetlands before it will issue water quality certification. To meet RWQCB 401 Certification standards, it is necessary to address all hydrologic issues related to a project, including:

- Wetlands;
- Watershed hydrograph modification;
- Proposed riverine related modifications; and
- Long term post-construction water quality.

CWA Section 303(D) and Total Maximum Daily Loads (TMDLs)

The CWA contains two strategies for managing water quality. One is a technology-based approach that includes requirements to maintain a minimum level of pollutant management using the best available technology. The other is a water quality-based approach that relies on evaluating the condition of surface waters and setting limitations on the amount of pollution that the water resource can be exposed to without adversely affecting the beneficial uses of those waters. Section 303(d) of the CWA bridges these two strategies and requires that states make a list of waters that are not attaining standards after the technology-based limits are put into place.

For waters on this list, the states are required to develop total maximum daily loads or TMDLs. Total Maximum Daily Load (TMDL) refers to the amount of a specific pollutant a river, stream, or lake can assimilate and still meet federal water quality standards as provided in the CWA and addressed in the CWA 401 permit application. TMDL accounts for all sources of pollution, including point sources, non-point sources, and natural background sources. Section 303(d) requires that regulatory agencies determine TMDLs for all water bodies that do not meet water quality standards.

Section 303(d) list of impaired water bodies provides a prioritization and schedule for the development of TMDLS for the state. In compliance with Section 303(d) of the CWA (33 U.S. Code [USC] Section 1313[d], the SWRCB prepared, and USEPA approved, a 2010 list of impaired water bodies in California. The list includes a priority schedule for the development of TMDLs for each contaminant or "stressor" impacting the water body.

The Coachella Valley Stormwater Channel is listed as being impaired[1] and is on the TMDL required list for DDT (Dichlorodiphenyltrichloroethane), Dieldrin, Nitrogen, ammonia (Total Ammonia), PCBs (Polychlorinated biphenyls), Toxaphene, Toxicity and Indicator Bacteria under Section 303(d) of the Clean Water Act (CWA).

State

Porter-Cologne Water Quality Control Act (PCWQCA)

California's primary statute governing water quality and water pollution issues is the Porter-Cologne Water Quality Control Act of 1970 (Porter-Cologne Act). The Porter-Cologne Act grants the State Water Resource Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs) broad powers to protect water quality and is the primary vehicle for implementing California's responsibilities under the federal CWA. The Porter-Cologne Act grants the SWRCB and the RWQCBs authority and responsibility to (1) adopt plans and policies; (2) regulate discharges to surface water and groundwater; (3) regulate waste disposal sites; and (4) require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, and oil or petroleum products.

[1] Coachella Valley Water Management Plan, prepared by the Coachella Valley Water District. 2010.

Each RWQCB must formulate and adopt a water quality plan (or Basin Plan) for its region. The regional plans conform to the policies set forth in the Porter-Cologne Act and those established by the SWRCB in its State Water Policy. The Porter-Cologne Act also enables the RWQCBs to include water discharge prohibitions applicable to particular conditions, areas, or types of waste within its regional plan. The RWQCBs are also authorized to (1) enforce discharge limitations; (2) take actions to prevent violations of these limitations from occurring; and (3) conduct investigations to determine the quality of any of the waters of the State. Civil and criminal penalties are imposed on persons who violate the requirements of the Porter-Cologne Act or any SWRCB/RWQCB orders.

The City of Cathedral City is located within the jurisdiction of the Colorado River Basin Regional Water Quality Control Board (RWQCB) which has the authority to implement water quality protection standards through the issuance of permits for discharges to waters at locations within its jurisdiction. In this jurisdiction, all discharges to surface waters are subject to the Colorado River Basin Plan.

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.

California Streambed Alteration Agreement

Sections 1600–1616 of the California Fish and Game Code require that any entity that proposes an activity that would substantially divert or obstruct the natural flow of any river, stream or lake; substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake; or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake, must notify the California Department of Fish and Wildlife (CDFW). The CDFW would require a Lake or Streambed Alteration Agreement if the Department determines that the alteration may adversely affect fish and wildlife resources. The Agreement includes conditions necessary to protect those resources. The Agreement applies to any stream, including ephemeral streams and desert washes.

Regional and Local

Colorado River Basin Regional Water Quality Control Board (RWQCB)

The City is 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. 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 (i.e., 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.

Integrated Regional Water Management Plan

The Coachella Valley Regional Water Management Group is a collaborative effort led by the five water purveyors in the Coachella Valley to develop an Integrated Regional Water Management Plan (IRWM) to address the valley's water resources and water quality planning needs. The Coachella Valley Water District (CVWD) and Desert Water Agency (DWA), which provide water to Cathedral City, are partners in this organization. The IRWM applies Integrated Water Management (IWM) principles on a regional scale.

In 2008, the five public water agencies in the Coachella Valley (including CVWD) formed the Coachella Valley Regional Water Management Group (CVRWMG). In 2010, they adopted the Coachella Valley Integrated Regional Water Management Plan (IRWMP). The IRWMP was updated in 2014 and 2018.[2] These efforts ensure that the Coachella Valley as a whole will focus on sustainable water resources. All water agencies in the Coachella Valley work together, share information, discuss concerns and viewpoints, and build consensus in supporting future projects that benefit the entire region. Since its formation, the CVRWMG has added Valley Sanitary District (VSD) as a member.

Whitewater River Region Stormwater Management Plan

The Whitewater River Region Stormwater Management Plan (SWMP) describes the activities and programs implemented by the Permittees to manage Urban Runoff to comply with the requirements of the National Pollutant Discharge Elimination System (NPDES) municipal separate storm sewer system (MS4) permit (MS4 Permit) for the Whitewater River Region. Cities of Banning, Cathedral City, Coachella, Desert Hot Springs, Indian Wells, Indio, La Quinta, Palm Desert, Palm Springs, and Rancho Mirage and CVWD are the Permittees under WRSWMP. Each Permittee is required to establish adequate legal authority to implement the provisions of the MS4 Permit in accordance with Federal regulations at 40 CFR 122.26.[3]

Cathedral City NPDES MS4 Permit

The Regional Water Quality Control Board issued a National Pollutant Discharge Elimination System (NPDES) Permit (Municipal Permit) to the municipalities within Riverside County, including the City of Cathedral City. The minimum requirement of the Municipal Permit is to ensure that pollutants discharged from storm drain systems owned and operated by the co-permittees are reduced to the maximum extent practicable. The Municipal Permit outlines the individual responsibilities of the co-permittees, including but not limited to, the implementation of management programs, best management practices (BMPs), and monitoring programs. NPDES regulations also consider the need to conserve natural areas, minimize impervious surfaces, and encourage the use of native or drought-tolerant plant material in landscaping.

Cathedral City Municipal Code

City's Municipal Section Code 8.24.050 address provisions for flood hazard reduction in the City. All development in the City is subject to those provisions.

Cathedral City General Plan

The Proposed General Plan sets forth goals, policies and programs that address issues associated with flooding and hydrology, and with water resources and quality. The Flooding and Hydrology Sub-Element is a part of the Safety Element and the Water Resources Sub-Element is found within the Open Space and Conservation Element. The proposed policies relevant to these hazards and resources are set forth separately below.

Flooding and Hydrology Sub-Element Policies

The City's Proposed General Plan Flooding and Hydrology Sub-Element addresses the hydrological conditions and flooding issues in the City and surrounding areas. The element contains numerous policies to encourage conservation of hydrological resources and minimize flooding issues in the planning area such as:

2 2018 Coachella Valley Integrated Regional Water Management & Stormwater Resource Plan (2018)
3 Whitewater River Region Stormwater Management Plan, prepared in June 2014 and Revised in January 2015.

Policy 1: Update the City Storm Drain Master Plan to reflect new hydraulic analysis, built facilities, changing conditions and the evolving needs of the City.

Policy 2: Major drainage facilities shall be designed to maximize their use as multi-purpose recreational or open space areas, consistent with the functional requirements of these facilities.

Policy 3: Continue to actively participate in regional flood control and drainage improvement efforts to develop and implement mutually beneficial drainage plans.

Policy 4: The City shall cooperate with CVWD and RCFCD in securing FEMA map amendments for planning areas and projects, as they occur.

Policy 5: Pursue all viable sources of funding for local and regional drainage improvements needed for adequate flood control and protection.

Policy 6: All new development shall be required to incorporated adequate flood mitigation measures, such as grading that prevents adverse drainage impacts to adjacent properties, on-site retention of runoff, and the adequate siting and sizing of structures located within flood plains.

Policy 7: Assure adequate, safe, all-weather and low-flow crossings over flood control channels are provided where necessary, and are maintained for passage during major storm events.

Policy 8: Investigate the need for the construction of curbs and gutters in neighborhoods lacking sufficient street drainage improvements.

Policy 9: Critical health and safety facilities shall not be located within the 100-year flood plain unless flood-proofing or other mitigation measures are implemented.

Policy 10: The flood-prone areas designated on Exhibit 2.10-1 and as defined by FEMA shall be considered inappropriate for conventional urban development without adequate flood control facilities. Applications for development at urban or suburban densities in areas where there is a serious risk to life shall demonstrate appropriate and cost-effective solutions before City grants approvals.

Policy 11: The City shall consider the use of floodplains as parks, nature trails, equestrian parks, golf courses, or other types of recreational facilities or joint-use facilities that can withstand periodic inundation.

Water Resources Sub-Element Policies

Policy 1: The City shall require the use of water-conserving appliances and fixtures in all new development, as mandated by State law.

Policy 2: Continue to encourage the use of low water-consuming, drought-tolerant landscape plantings as a means of reducing water demand.

Policy 3 Encourage the expanded use of tertiary treated wastewater as a means of reducing impacts of development on groundwater resources.

Policy 4: The City shall require the connection of all new development to the community sewer system.

Policy 5: The City shall require existing development currently connected to septic tanks to connect to the sewer system when it becomes available.

Policy 6: The City shall coordinate with other appropriate agencies to minimize the potential for groundwater contamination within and in the vicinity of the city.

Policy 7: Establish and enforce guidelines for the development and maintenance of project-specific, onsite storm water retention/detention facilities in a manner consistent with local and regional drainage plans and community design standards.

Policy 8: The City shall protect aquifer recharge facilities from degradation of water quality and reduction of recharge.

Policy 9: Maximize stormwater filtration and/or infiltration in areas that are not subject to high groundwater by maximizing the natural drainage patterns.

Policy 10: Require new development to protect the quality of water bodies and natural drainage systems through site design, source controls, storm water treatment, runoff reduction measures, and best management practices (BMPs).

Policy 11: Require new development to minimize the use of directly connected impervious surfaces and to retain stormwater run-off caused from the development footprint at or near the site of generation.

2.10.4 Regional Environmental Setting

Geographic and Climatic Conditions

The Coachella Valley is a low-lying desert valley surrounded by mountains on the north, south, and west. These mountains isolate the Valley from moist and cool maritime air masses from the west, creating a dry subtropical desert climate. Summer daytime temperatures can occasionally exceed 125°F and winter temperatures occasionally fall below freezing. Mean annual rainfall on the Coachella Valley floor is between 2 and 6 inches[4], and while some years record no measurable rainfall, other years may be subjected to flash flood and other substantial rain events. Historic and prehistoric flooding has played a key role in shaping the valley's current hydrological setting.

Hydrologic Region and Watershed

The Coachella Valley is located in the Colorado River Hydrologic Region, which includes the Colorado River, one of the longest river systems in the State of California. About 85% of the Colorado River Hydrologic Region's urban and agricultural water supply comes from surface water deliveries from the Colorado River.[5]

The Coachella Valley lies within the Whitewater River Watershed, which is generally defined by the boundaries of the Whitewater Hydrologic Unit as described in the Water Quality Control Plan for the Colorado River Basin Regional Water Quality Control Board (Basin Plan). Much of the watershed consists of sparsely populated mountains, desert, and agricultural lands. Urbanized areas are principally located on the valley floor between Banning and Indio along Interstate 10, and from Palm Springs to Coachella along State Highway 111. The watershed is generally bounded on the south by the San Jacinto and Santa Rosa Mountains, on the west by the Santa Ana Watershed, on the east by the Salton Sea, the Cottonwood Mountains, and Southern Mojave Watershed, and on the north east by the little San Bernardino Mountains and Southern Mojave Watershed.

The principal regional drainage through the watershed is the Whitewater River, which emanates from the San Bernardino and San Jacinto Mountains on the west end of the Coachella Valley, and drains southeast to the Salton Sea. It has a total drainage area of approximately 850 square miles and is typically dry southeast of the San Gorgonio

[4] "Mean Annual Isohyets based on combined data of 1879-79 season to 1953-54 (from 1961 U.S. A.C.E. Report) and 1935-60 (From 1973-74 Riverside CO F.C.D. Report)"

[5] California Water Plan Update 2005 (Chapter 11 Colorado River Hydrologic Region, Volume 3).

Pass but flows southeasterly when it carries storm flows. Over the last 50 years, the Whitewater River has been impacted by increasing development within the watershed. The lower river was channelized into a largely levee-controlled flood control structure following damaging floods in the valley in 1939 and 1979. This flood control project, developed in cooperation with the U.S. Army Corps of Engineers (ACOE), included rip-rap and concrete-lined levee banks, and dredging of the river channel bottom. West of Point Happy in La Quinta, it is called the Whitewater River Stormwater Channel (WWRSC). East of Point Happy, it is called the Coachella Valley Stormwater Channel.

Regional Stormwater Management

The Coachella Valley Water District (CVWD) and the Riverside County Flood Control District (RCFCD) are responsible for the management of regional drainage in the Coachella Valley, including rivers, major streams and their tributaries, and areas of significant sheet flooding. Both Districts are empowered with broad management functions, including flood control planning and construction of drainage facilities for regional flood control, as well as watershed and watercourse protection related to those facilities.

Water Sources

The Coachella Valley relies on a combination of local surface water, groundwater, imported Colorado River water, State Water Project (SWP) exchange water, and recycled water to meet demand. Its low desert locale is characteristically dry, with an annual average rainfall of less than 4 inches on the valley floor. Despite the limited surface water supplies, the valley is underlain by a substantial subsurface groundwater basin, which has accumulated runoff over millions of years.

The Whitewater River Groundwater Basin generally extends from the Whitewater River in the northwest to the Salton Sea in the southeast. The aquifer is naturally subdivided by fault barriers into subbasins, which are further divided into subareas. Desert Water Agency (DWA) and the Coachella Valley Water District (CVWD) jointly utilize and manage a replenishment program for the Upper Whitewater River Subbasin near the San Gorgonio Pass and including the Mission Creek Replenishment Facility in Desert Hot Springs. The Thomas E. Levy Groundwater Replenishment Facility in the La Quinta area recharges the eastern Whitewater subbasin.

In total, the subbasins underlying the Coachella Valley contain approximately 39.2 million acre-feet of water in storage,[6] of which about 28.8 million are within the Whitewater River subbasin.[7] recharge from precipitation and mountain runoff, supplemented with artificial recharge from imported Colorado River and State Water Project water, and recycled water from treatment plants also provide water to the Coachella Valley.

During the twentieth century, the Coachella Valley experienced a rapid depletion of its groundwater in storage. DWA and CVWD data show that significant increases in total water demand in the Coachella Water Valley occurred during over the decades from 92,400 acre-feet/year (AFY) in 1936 to 376,000 AFY in 1999.[8] The increase in water demand reflects both municipal water and agricultural irrigation. This is consistent with the growth of two primary economic activities in the Coachella Valley: agriculture and tourism.

<u>Surface Water</u>
Primary surface waterways include the Whitewater River and several streams, including Snow Creek, Falls Creek, and Chino Creek, as well as a number of smaller creeks and washes. Surface water supplies are affected by variations in annual precipitation; therefore, the annual supply from this source is highly variable. The majority of

6 California Department of Water Resources, 1964.
7 2018-2019 Engineer's Report by DWA– Groundwater Replenishment and Assessment Program for the West Whitewater River Basin, Mission Creek Subbasin, and Garnet Hill Subbasin Areas of Benefit.
8 Coachella Valley Water Management Plan Update Final Report prepared for CVWD in 2012 by MWH.

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.[9]

Groundwater

The majority of the Coachella Valley's domestic water supply is groundwater extracted from subsurface aquifers. The availability of groundwater in an area depends largely upon its geologic, hydrologic, and climatic conditions. In the Coachella Valley, groundwater is found in perched, unconfined, and confined zones in the Coachella Valley Groundwater Basin which is divided into subbasins and subareas based on fault barriers, constrictions in the basin profile, and areas of low permeability. The Cathedral City General Plan planning area is underlain by the Whitewater River Subbasin and Mission Creek Subbasin.

Whitewater River Subbasin

The Whitewater River subbasin is the primary groundwater repository for the Coachella Valley and the City of Cathedral City. Encompassing a major portion of the valley floor, it covers approximately 400 square miles and extends from the junction of Interstate-10 and State Highway 111, to the Salton Sea about 70 miles to the southeast. Its groundwater storage capacity is estimated at 28.8 million acre-feet in the first 1,000 feet below the ground surface.[10]

The subbasin is divided into four distinct subareas: Palm Springs, Thermal, Thousand Palms, and Oasis. The Palm Springs subarea underlies most of the City, including lands generally west of Date Palm Drive. Lands generally east of Date Palm Drive are underlain by the upper Thermal subarea. The northernmost portion of the planning area, including lands north of Interstate-10 and south of the Indio Hills, is underlain by the Thousand Palms subarea.

- Palm Springs Subarea: The Palm Springs subarea contains approximately 4.6 million acre-feet of groundwater in storage in the first 1,000 feet below the ground surface.[11] It is largely comprised of alluvial fan deposits exceeding 1,000 feet in depth. It is naturally recharged by infiltration of runoff from the San Jacinto Mountains and the Whitewater River, and subsurface inflow from the San Gorgonio Pass and Garnet Hill subbasins.

- Thermal Subarea: The Thermal subarea extends from eastern Cathedral City south to the Salton Sea. It contains approximately 19.4 million acre-feet of groundwater in storage in the first 1,000 feet below the ground surface and is characterized by confined or semi-confined groundwater conditions with free moving water conditions in alluvial fans at the base of the Santa Rosa Mountains.[12]

- CVWD well logs have identified two aquifer zones in the Thermal subarea. The lower aquifer zone is estimated to be at least 500 feet and possibly more than 1,000 feet thick, and is composed of Ocotillo conglomerate, which consists of gravels and silty sands interbedded with silt and clay. The upper aquifer zone is similar in composition to the lower aquifer zone, but not as thick. An aquitard layer, composed of fine-grained materials that slow the vertical flow of groundwater, separates the upper and lower aquifer zones and is estimated to be between 100 and 200 feet thick throughout much of the Thermal subarea.[13]

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9 Coachella Valley Water Management Plan Update – Final Report – 2012.

10 Engineer's Report on Water Supply and Replenishment Assessment for the Lower Whitewater River Subbasin Area of Benefit, 2013-2014.

11 Engineer's Report on Water Supply and Replenishment Assessment for the Mission Creek Subbasin Area of Benefit, West Whitewater River Subbasin Area of Benefit and East Whitewater River Subbasin Area of Benefit, Coachella Valley Water District, 2017-2018.

12 Ibid.

13 Ibid.

- Thousand Palms Subarea: The Thousand Palms subarea contains approximately 1.8 million acre-feet of groundwater in storage in the first 1,000 feet below the ground surface.[14] It extends along the southerly edge of the Indio Hills and is small in comparison to the Thermal subarea. Its southwesterly boundary has been determined based on its distinctive groundwater chemical characteristics. Water in the Thousand Palms subarea is characterized by high concentrations of sodium sulfate, while water in other subareas of the Whitewater River subbasin is generally characterized by calcium bicarbonate. This is largely attributed to limited recharge into the Thousand Palms subarea. The subarea is recharged by limited runoff from the Indio Hills and experiences little, if any, inflow from other subareas or subbasins. Since there is little opportunity for intermixing or "dilution" by water of different chemical compositions, the native sodium sulfate is present in greater concentrations in the Thousand Palms subarea.

Mission Creek Subbasin
The Mission Creek subbasin underlies the northern portion of the City and Sphere of Influence, north of Interstate 10. It is bounded by the Mission Creek Fault on the north and east, Banning Fault on the south, San Bernardino Mountains on the west, and Indio Hills on the southeast. Groundwater flows in a southeasterly direction within the basin, which has a storage capacity of about 2.6 million acre feet, and is estimated to have recoverable water in the range of about 1 million acre feet.

Groundwater Replenishment

State Water Project (SWP)
CVWD and DWA are SWP contractors for the Whitewater River (Indio) Subbasin. The SWP includes 660 miles of aqueduct and conveyance facilities extending from Lake Oroville (near Sacramento) in the north to Lake Perris (near Riverside) in the south. The SWP has contracts to deliver 4.1 million AFY to 29 contracting agencies. CVWD's original SWP water right (Table A amount) was 23,100 AFY and DWA's original SWP Table A amount was 38,100 AFY for a combined Table A amount of 61,200 AFY. In 2004, CVWD purchased an additional 9,900 AFY of SWP water from the Tulare Lake Basin Water Storage District located in the central San Joaquin Valley, which brought CVWD's SWP allotment to 33,000 AFY.

In addition, CVWD and DWA have also negotiated an exchange agreement with Metropolitan Water District (MWD) for 100,000 AFY of SWP Table A water. MWD has permanently transferred 88,100 AFY and 11,900 AFY of its SWP Table A amounts annually to CVWD and DWA, respectively. This exchange agreement increases the total SWP Table A amount for CVWD and DWA to 178,100 AFY, with CVWD's portion equal to 126,350 AFY. This agreement provides that CVWD and DWA generally receive this SWP Exchange Water during wet years, which allows the two agencies to recharge the groundwater basin and operate a conjunctive use program, storing water in wet years and pumping the groundwater basin in dry years.

In 2007, CVWD and DWA made a second purchase of SWP water from the Tulare Lake Basin Water Storage District. CVWD purchased 5,250 AFY and DWA purchased 1,750 AFY. In 2007, CVWD and DWA completed the transfer of 12,000 AFY and 4,000 AFY, respectively, from the Berrenda Mesa Water District (southern San Joaquin Valley) for a total Table A amount of 16,000 AFY. Therefore, the total SWP Table A amount for CVWD and DWA is 194,100 AFY, with CVWD's portion equal to 138,350 AFY. Table 18 summarizes CVWD and DWA total allocations of Table A SWP water to be delivered when available.[15]

Colorado River Water
In the Coachella Valley, the groundwater basin is recharged by Colorado River water, reclaimed water, and SWP Exchange Water. Surface runoff from the surrounding mountains also serves to recharge the local groundwater basins. Colorado River water is also available for potential direct domestic use if treated. The Coachella Branch

14 Ibid.
15 Coachella Valley Water Management Plan 2010 Update, Final Report (2012).

Canal is an extension of the All-American Canal, which brings Colorado River water into the Imperial and Coachella Valleys. Under the 1931 California Seven Party Agreement, CVWD has water rights to Colorado River water as part of the first 3.85 million AF allocated to California. CVWD is in the third priority position along with the Imperial Irrigation District (IID). This priority is ahead of the 550,000 AF allocation to the MWD, which has the lowest priority of the California Seven Parties.

California's Colorado River supply is protected by the 1968 Colorado River Basin Project Act, such that the Colorado River supplies to Arizona and Nevada after 1968 must be reduced to zero before California's supply will be reduced below 4.4 million AF in any year. It is estimated that this reduction is about 1.5 million AF. This reduction together with the reduction by California agencies with lower priorities than CVWD results in a reduction in excess of 2 million AF in Colorado River Water available to the Lower Basin States before the Colorado River supply available to CVWD is impacted. This assumes that the California agricultural agencies with rights to Colorado River Water are using less than 3.85 million AF.

Water Demand

Water is supplied to Cathedral City by both the Coachella Valley Water District (CVWD) and Desert Water Agency (DWA). Tables 2.10-1 and 2.10-2, below, show the recent and projected water deliveries (demand) within the entire CVWD and DWA service areas. The CVWD service area includes lands primarily within Riverside County but also within Imperial and San Diego Counties, and covers an area much larger than Cathedral City. DWA's service area covers the remaining portion of Cathedral City, the City of Palm Springs, and a portion of unincorporated Riverside County.

Table 2.10-1
Total Recent and Projected Water Deliveries in CVWD Service Area by Land Use
(acre-feet per year)

Year	Potable Water Use			Non-Potable Recycled Water	Total Water Delivered
	Residential	Commercial[1]	Institutional		
2015	55,033	27,507	868	8,749	101,723
2020	67,800	33,900	1,100	14,300	128,900
2025	80,500	40,300	1,300	27,700	163,800
2030	93,300	46,700	1,500	30,800	188,500
2035	105,900	52,900	1,700	33,900	212,800
2040	115,000	57,500	1,800	36,300	230,600

Source: CVWD 2015 Urban Water Management Plan (Table ES-1 and ES-2)
1. Commercial includes "Landscaping" and "Other" water demands per Table ES-1
Note: Table does not include water losses.

In 2009, the Water Conservation Act (SB X7-7) was passed under the Urban Water Management Plan Act (UWMP Act), requiring a 20 percent reduction in per capita water use by the year 2020. Both CVWD and DWA's UWMPs have set forth water conservation goals and programs that include increased general awareness of the need for water conservation, tiered billing rates that encourage conservation and wise water use, and turf buy-back programs that rewards property owners for replacing turf with drought-tolerant landscape materials.

Table 2.10-2
Total Recent and Projected Water Deliveries in DWA Service Area by Land Use (acre-feet per year)

Year	Potable Water Use			Non-Potable Recycled Water	Total Water Delivered
	Residential	Commercial	Institutional		
2015	17,800	7,700	1,200	4,045	33,136
2020	23,000	9,900	1,600	6,100	42,670
2025	24,100	10,400	1,600	7,000	45,266
2030	25,200	10,900	1,700	7,000	47,068
2035	26,300	11,400	1,800	7,000	48,870
2040	27,400	11,800	1,800	7,000	50,460

Source: DWA 2015 Urban Water Management Plan (Table IV-1)
Note: Table does not include water losses.

Groundwater Overdraft

Despite recent conservation efforts in the DWA and CVWD service areas, the continuing demand for groundwater has led to ongoing overdraft conditions. Well monitoring data indicate that from the 1950s to 1970s, water levels in the Upper Coachella Valley decreased by approximately 50 to 100 feet. Overdraft can result in significant adverse social, environmental and economic impacts, including the increased potential for land subsidence, increased infrastructure and energy costs associated with drilling deeper wells and installing larger pumps, and the threat of a diminishing long-term water supply.

The upper Whitewater River subbasin, in particular, has been characterized by historically significant declining water table conditions. To more effectively manage this area, CVWD and DWA have designated the subbasin as a "Management Area" and have carefully monitored its inflow and outflow rates. The Management Area consists of the Palm Springs and Thousand Palms subareas of the Whitewater River subbasin, and that portion of the Thermal subarea experiencing a significantly declining water table. All of these subareas underlie, to some extent, the Cathedral City General Plan planning area.

In 2017, a wet year, total inflows (489,272 AF) were higher than the total outflows (186,680 AF) of the Whitewater River Subbasin due to significant deliveries of replenishment water. Without artificial replenishment, the annual reduction in stored groundwater within the West Whitewater River Subbasin in 2017 would have been approximately -83,402 AF, compared to the annual balance of approximately 302,592 AF.[16] Continued groundwater replenishment is necessary to either eliminate or reduce overdraft in the future. In addition, recycled water and water conservation programs have been implemented in the valley to alleviate the groundwater overdraft.

Water Quality

Urban development can result in the degradation of water quality due to the introduction of pollutants and erosion during construction. Development and pervious pavement can result in increased runoff and higher velocities in creeks, streams, and channels. These changes can, in turn, cause erosion. Urban pollutants may include toxic metals, hydrocarbons, nutrients, suspended solids, and many other chemicals.

[16] CVWD Engineer's Report on Water Supply and Replenishment Assessment 2018-2019 - Mission Creek, West Whitewater River, and East Whitewater River Subbasin Areas of Benefit.

Water quality in the Coachella Valley is generally good to excellent. According to the annual CVWD Water Quality Report, the detected parameters (e.g. arsenic, barium, chloride, chromium, copper, Dibromochloropropane (DBCP), pH, sodium, and sulfate) do not exceed Maximum Contaminant Levels (MCL) for 2017.[17] Exceptions are primarily limited to perched and semi-perched water tables occurring in the lower valley, where on-going crop irrigation has increased total dissolved solids. Groundwater quality can be affected by a number of things, including the type of water-bearing materials in which the water occurs, water depth, proximity to faults, and presence of surface contaminants.

High TDS concentrations are typically detected near major faults and have been observed along the San Andreas fault system. In the vicinity of the fault zone separating the Thousand Palms subarea from the Thermal subarea, for example, TDS concentrations have exceeded 1,000 mg/L. However, other evidence indicates that high TDS concentrations may also be associated with the importation of Colorado River water, which is about three times higher in total dissolved solids than natural upper Whitewater River groundwater.

Mineral content has also increased in the groundwater basin through the importation of Colorado River recharge water, as well as through natural surface water runoff, wastewater percolation, the application of fertilizers, and intrusion of the Salton Sea into the southeastern-most portion of the groundwater basin. CVWD estimates that the quantity of salts added to the groundwater basin increased from approximately 12,000 tons per year in 1936, to about 417,000 tons per year in 2015. For 2035, the projected salt addition to the groundwater basin is 504,000 tons per year.[18] The majority of salts (65%) are associated with agricultural irrigation in the east valley.

Septic Tank Elimination Program

Until recently, development in the Cove area of Cathedral City used septic tanks for solid waste disposal. However, the use of septic tanks in those areas was linked to high nitrate levels and associated contamination of the upper levels of groundwater supplies.

The city passed Ordinance 572 § 1 in 2000 requiring new buildings and structures with plumbing facilities to be connected to an available public sewer system, requiring the same of existing buildings prior to sale or transfer of ownership, and prohibiting the issuance of permits for septic tank installation or alteration within the city; it also fined homeowners who violated the ordinance. The City also adopted an ordinance (Ord. 626 § 1, 2006) that allowed developers to be reimbursed by the city when they installed sewer improvements that subsequently benefited other properties located between the sewer improvements and the point of connection to an existing main.

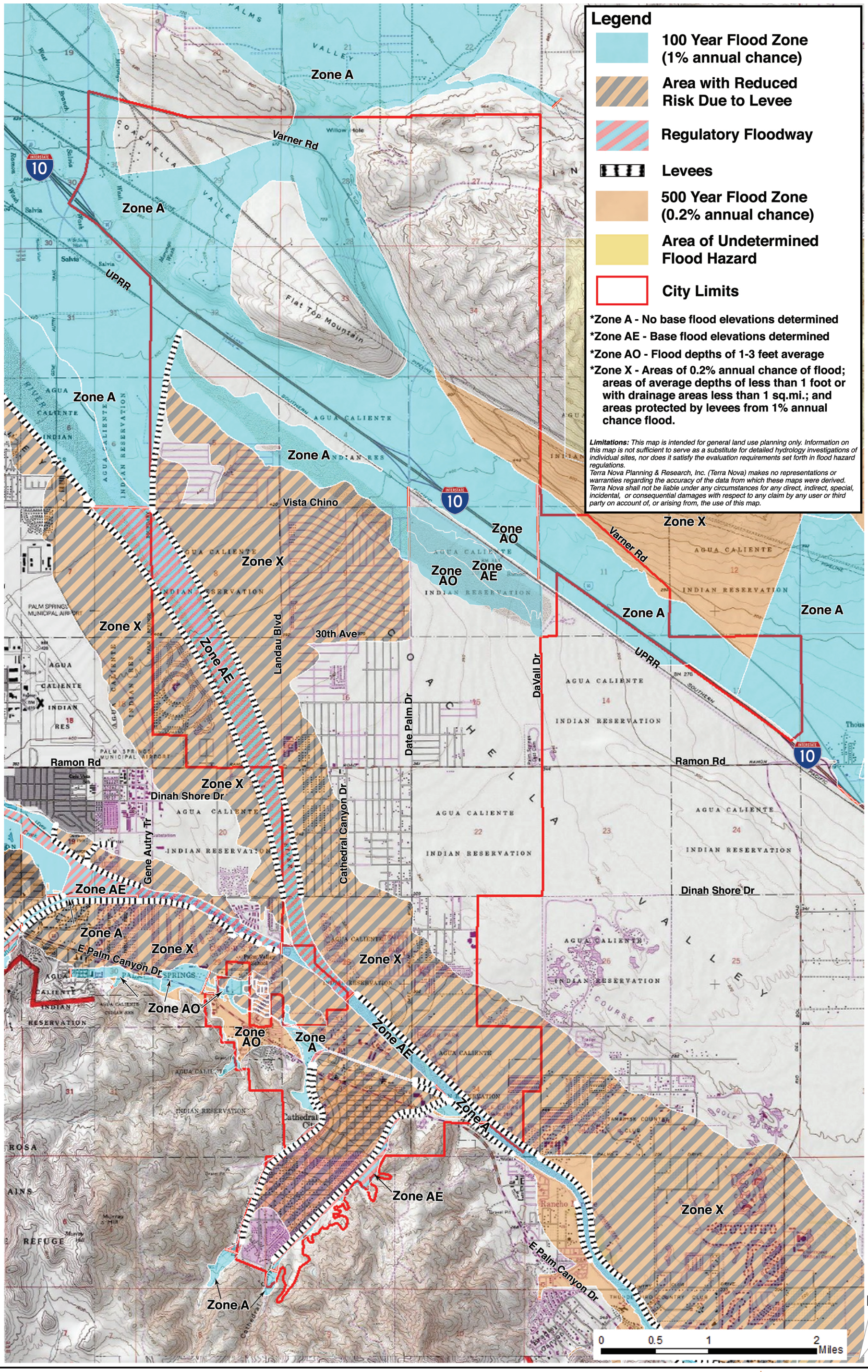
In 2008, the City initiated the Cove Improvement District Sewer and Street Project, a two-phase project that connected Cove residences to the sewer system. All Cove residences are now connected to the sewer system.

2.10.5 Existing Conditions

Local Stormwater Management

Cathedral City is subject to flooding resulting from overflow in the Whitewater River, Eagle Canyon Wash, East and West Cathedral Canyon Channels, and other drainages to the north, including Morongo Wash and Long Canyon Wash, as well as from East and West Wide Canyons. The City is responsible for the management of local stormwater and associated facilities, including the local drainage channels, pipes and street conveyances.

17 CVWD Water Quality Report (2016-2017 Annual Review Report).
18 Coachella Valley Final Water Management Plan - Table 4-7 (2002) and Section 8.1.4.2 of the CVWMP Update, 2010..



08.02.18 Source: Esri, USGS, 2018; FEMA FIRM Map, Effective August 2008; NHC 2014.

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City of Cathedral City General Plan EIR
FEMA Flood Zones
Cathedral City, California

Cathedral City

Exhibit
2.10-1

The City has been building new and expanding existing bridges and other infrastructure along and across the Whitewater River and East Cathedral Canyon Wash, ensuring all-weather access during a major storm event. The existing bridge along Date Palm Drive at the Whitewater River was recently widened from 4 to 6 lanes. A new bridge is planned along Cathedral Canyon Drive at the Whitewater River, with construction expected to be completed in 2022. In addition to flood flows, minor flooding and ponding of surface water occurs on the relatively flat valley floor when flood control channels draining Cathedral Canyon (the East, West and North Cathedral Channels) overflow. In addition to flooding hazards associated with the Whitewater River and the various washes emanating from the Santa Rosa and San Jacinto Mountains, the City has been studying management options for drainages in the North City Hydrologic Area.

Inundation Hazards

Flood Hazards

Flood Hazard Areas are those areas which have statistical chance of flooding once in 100 years or which have a 1% chance of occurring in any given year. The flood hazard mapping also depicts areas subject to flooding in a 500-year storm event, which CVWD defines as the Standard Project Flood (SPF), which has 0.2% chance of occurring in any given year.

The FEMA mapping for the Cathedral City planning area depicts limited areas near and adjacent to the Santa Rosa foothills, and tributary drainage from the west, that are subject to 100-year flooding with depths of between one and three feet and areas with an undetermined flood depth (Exhibit 2.10-1). With completion of the Eagle Canyon Dam, portions of the southwest portion of the City that was subject to 100-year flood has been removed from this threat. The City is coordinating with Palm Springs Public Works to address the remaining flooding hazards in this area originating from the west, and which are contributed to by local runoff from both cities.

Tsunami Hazards

The City is approximately 70 miles inland from the Pacific Ocean and is not subject to a tsunami.

Seiche Hazards

A major hazard associated with earthquakes is water inundation resulting from a seiche. A seiche is a standing wave in an enclosed or partly enclosed body of water. In the majority of instances, earthquake-induced seiches do not occur close to the epicenter of an earthquake, but hundreds of miles away. This is due to the fact that earthquake shock waves close to the epicenter consist of high-frequency vibrations, while those at much greater distances are of lower frequency (longer wave length), which can enhance the rhythmic movement in a body of water. The biggest seiches develop when the period of the ground shaking matches the frequency of oscillation of the water body, and they create a "sloshing" effect on bodies of water. This effect can cause damage to water reservoirs which could breach and cause flooding. Water reservoirs in the planning area are structurally reinforced and baffled to reduce this potential hazards. However, leakage of water reservoirs in the planning area can cause flooding in the surrounding area. Currently there are reservoirs in the Santa Rosa foothills and adjacent to residential development, and north of I-10 in a currently undeveloped portion of the City.

Water Quality

Supply Contingency Planning

The CVWD developed its Water Shortage Contingency Plan during the 1986-92 drought pursuant to the requirements of the Government Code 10632,[19] which implements a combination of ordinances to reduce water usage. After the State Water Resources Control Board's (SWRCB's) adoption of revised regulations in May 2016, CVWD repealed these ordinances and adopted Ordinance 1422.3 which establishes Stage 2 restrictions that remain in effect until the SWRCB rescinds its emergency regulations.

[19] CVWD's 2015 Urban Water Management Plan.

The key element of CVWD's water shortage contingency plan is an ordinance with phased water use restrictions and a drought-related rate structure, as summarized in Table 2.10.3.

Table 2.10-3
Coachella Valley Water District's
Water Shortage Contingency Plan Summary

Stage*	% Supply Reduction	Water Supply Condition
I	10	Normal water supplies
II	10	10% reduction in total groundwater and imported supplies relative to long-term average conditions
II	20	25% reduction in total groundwater and imported supplies relative to long-term average conditions
IV	50	50% reduction in total groundwater and imported supplies relative to long-term average conditions

* Stage 1 is voluntary reduction, stages 2 through 4 are mandatory reductions.
The Stage 2 and 3 reduction targets are flexible and may be adjusted by CVWD Board action based on actual supply conditions.
Source: 2015 UWMP, Table ES-6.

DWA has also established five stages of conservation and water use restrictions to be evoked during water supply emergencies. The stages involve voluntary and mandatory conservation measures and restrictions, depending on the causes, severity, and anticipated duration of the water supply shortage. DWA's contingency stages are described in the following table.

Table 2.10-4
Desert Water Agency's
Water Shortage Contingency Plan Summary

Stage*	Water Supply Conditions	Supply Shortage (%)	Reduction Goal (%)
1. Voluntary Conservation and Prohibited Uses	Normal Conditions	0	5
2. Alert: Mandatory Conservation Measures	Threatened or existing water supply shortage	10	10
3. Warning: Mandatory Conservation Measures	Water shortage prevents demands from being met	20	20
4. Emergency: Mandatory Conservation Measures	Water shortage requires significant use reduction	25	25
5. Water Allocations	Water shortage requires allocation of supplies	50	50

* DWA 2015 Urban Water Management Plan (2016)

2.10.6 Project Impacts

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

New development and redevelopment allowed under the General Plan Update would result in increases in impervious surfaces in the form of structures, roads, roofs, concrete or asphalt sidewalks, parking lots, and areas of compacted soil which would increase runoff with possible petroleum and other contaminants. Stormwater moves over impervious surfaces and collects natural and human generated substances, such as sediment, trace metals, fertilizers and pesticides, grease and oil, and trash and debris, and carries them to the drainage system and eventually to channels, streams, and rivers.

Specific pollutants depend on the type of land use and the site improvements proposed by individual projects. Residential developments, industrial and commercial developments, automotive repair shops, restaurants, hillside developments, parking lots, streets, and other improvements have the potential to generate a variety of storm water pollutants. Impervious surfaces increase the amount of stormwater runoff and can impede or prevent the natural percolation of rainwater into the soil, resulting in higher levels of mobilized sediment and other pollutants entering receiving water bodies as nonpoint source pollutants, thereby decreasing the quality of receiving waters.

Policies 1, 2, 3, 4, 5, 6, 7, 8, and 14 of the Flooding and Hydrology Sub-Element requires the City to protect groundwater from a wide variety of potential threats, including on-lot septic tanks and hazardous materials spills. They also require new development and major redevelopment projects to prepare individual Water Quality Management Plans (WQMPs) that identify (1) the potential pollutants of concern that would be generated by the project and (2) the site and hydrologic conditions of concern at downstream locations. Policy 9 of the Water Resources Sub-Element requires new development to maximize stormwater filtration and/or infiltration by maximizing the natural drainage patterns. In addition, policies 10 and 11 of the Water Resources Sub-Element require new development to protect the quality of water bodies and natural drainage systems through site design, source controls, storm water treatment, runoff reduction measures, best management practices (BMPs), and by minimizing the impervious surfaces and stormwater run-off.

WQMPs will identify permanent site design, source control, and treatment control BMPs that would be implemented as part of the project, including maintenance responsibilities and funding sources, and would be signed as a notarized agreement between the City and the property owner to provide a long-term commitment to its implementation. Preparation and implementation of a WQMP for new development and redevelopment projects satisfies MS4 Permit requirements and allows the City to comply with the water quality standards for storm water runoff.

The City's Storm Water Management and Discharge Control Ordinance (Municipal Code Chapter 15.10) prohibits the discharge of specific pollutants into the storm water and requires development projects to provide adequate flood mitigation measures to reduce pollutants in the storm water (Policy 6 of the Flooding and Hydrology Sub-Element). Compliance with this ordinance would reduce storm water pollution from individual developments in the long term. Policy 10 of the Water Resources Sub-Element requires that all project developers demonstrate appropriate and cost-effective solutions before City grants approvals, thereby further ensuring that impacts to water quality will be less than significant.

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

The City of Cathedral City obtains water services from the CVWD and DWA, whose main water supply comes from the underlying Whitewater Groundwater Basin.[20] Future development and redevelopment would increase the long-term demand for water for domestic purposes and landscape irrigation. This increased water demand may lead to an increase in groundwater pumping from local wells.

As discussed in Section 2.15, Public Utilities and Service Systems of this EIR, implementation of the proposed General Plan Update could add up to 33,396 housing units and a maximum possible total of will include approximately 54,615 units. Buildout could also result in up to 13,116,382 square feet of commercial space and up to 17,781,959 square feet of industrial space in the City. Future growth facilitated by the proposed General Plan update would result in a significant increase in domestic water demand. However, the proposed General Plan would result in only a modest increase in water demand when compared to the existing Plan.

[20] "Coachella Valley Water Management Plan 2010 Update Final Report," prepared by MWH and Water Consult, January 2012.

Using CVWD's annual water consumption factors, buildout of the proposed General Plan update could result in the demand for approximately 20,770 acre-feet per year (AFY) of domestic water (Table 2.15-2). The planning area is served by CVWD and DWA. According to CVWD's 2015 Urban Water Management Plan (UWMP), the urban water demands in the CVWD service area are estimated to grow from 114,600 AFY in 2020 to 194,300 AFY in 2040. According to DWA's 2015 UWMP, the urban water demands in the DWA service area are estimated to grow from 42,708 AFY in 2020 to 50,575 AFY in 2040. At General Plan buildout, the water demand in Cathedral City would represent approximately 8.5 percent of the total projected 2040 water demand of 244,875 AF for both CVWD and DWA combined. Both CVWD and DWA update their urban water management plans every year, working directly with the Southern California Association of Governments (SCAG), county transportation commissions, and local governments, and incorporates cities' land use plans and population projections.

The CVWD and DWA regulate groundwater pumping from the Whitewater Groundwater Basin, and comply with pumping rights, as required under the Sustainable Groundwater Management Act (SGMA). Thus, groundwater pumping that may lead to the depletion of local groundwater resources is not expected to occur.

Goal 1 in the Water Resources Sub-Element of the proposed General Plan calls for adequate, reliable, and sustainable water supplies to the community. Supporting policies direct the City to consult with the CVWD and DWA on water conservation throughout the community, including the use of drought-tolerant landscaping and low water-demanding appliances. They also direct the City to encourage the expanded use of recycled and reclaimed water, and the elimination of on-lot septic tanks to the greatest extent practicable. Promotion of water conservation by the City, in coordination with CVWD and DWA, is also mandated.

Implementation of water conservation measures would reduce the demand for groundwater resources. As discussed above, available long-term water supplies are expected to be available to meet the water demand of the City to the year 2040. Implementation of General Plan update policies and actions would maintain and protect groundwater recharge resources. Therefore, impacts to long-term water supplies and groundwater recharge facilities from buildout of the proposed general Plan would be less than significant.

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) result in substantial erosion or siltation on- or off-site;

Much of the City limits is developed, and benefits from an extensive surface and subsurface storm drain system. Areas in the northwestern portion of the City are subject to stream breakouts during large storms and threaten to inundate developed lands in this area, as well as vacant lands planned for development, as well as threatening improvement of the Union Pacific Railroad and US Interstate-10. Future development would connect to the existing storm drain system. While changes to the local hydrology would occur through the development of vacant or underutilized parcels, this change would be confined to the individual sites and would not affect major underground storm drain lines and channelized creeks in the City.

Overall, the proposed General Plan update proposes no alteration to the course of a stream or river or improved channels in the planning area so no erosion would occur. However, future development would result in additional impervious surfaces but would not change existing drainage patterns.

Policy 6 of the Flooding and Hydrology Sub-Element requires new development to provide runoff control and on-site stormwater retention, where appropriate. Policy 9 calls for the avoidance of development within the 100-year floodplain and protection of natural drainage patterns from erosion and from polluted urban runoff. Compliance with these policies by future pursuant to the proposed General Plan Update would prevent alteration of water courses and substantial erosion.

Policy 10 of the Flooding and Hydrology Sub-Element requires the City and new developers to avoid and minimize soil erosion, all grading, earthwork, and construction activities. Program 12.A requires the City to provide information on and encourage residents to plant and maintain drought-resistant, fire-retardant landscape species to reduce the risk of brush fire and soil erosion in areas adjacent to canyons; and to develop stringent site design and maintenance standards for areas with high fire hazard or soil erosion potential. Policies 7, 8, 9, 10 and 11 of the Water Resources Sub-Element also direct the City and developers to provide adequate stormwater water management and retention, protect the aquifer from degradation, maximize infiltration or stormwater, apply Best Management Practices in all phases of development, and intercept and convey urban runoff to community stormwater facilities.

Compliance with federal, state, regional and local regulations and policies included in the proposed General Plan Update would minimize the potential for erosion and siltation in the planning area. Overall, this impact would be reduced to less than significant levels. In summary, planned development and improvements associated with and facilitated by the proposed General Plan would not alter existing drainage patterns nor would it result in the development of additional impervious surfaces that would substantially increase soil erosion or siltation within the City or in any downstream areas.

ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

The proposed General Plan Update does not propose alterations to the course of a stream, river, or improved channel and, therefore, would not increase the rate or amount of surface runoff to the extent or in a manner that would result in flooding from such a feature. An increase in impermeable surfaces from future development may substantially increase the amount and rate of surface runoff; however, existing and planned drainage improvements and General Plan policies and programs will ensure that any increases in runoff are managed in a manner which precludes flooding on- or off-site.

In undeveloped areas north of I-10, flows from Morongo Wash and Long Canyon Wash join near 20th Avenue and Palm Drive about 1 mile north of the planning area. The Banning fault scarp directs much of the Long Canyon flows west to Palm Drive. Impermeable surfaces such as roads, roofs, parking lots, and sidewalks reduce infiltration of water into the ground and accelerate runoff. Even in existing developed areas, where lawns and other permeable landscaping would be common, surface runoff can saturate thin soils and produce overland flow, which runs off quickly. As a result of accelerated runoff from development or construction activities, the peak discharge, volume, and frequency of floods would increase.

Development facilitated by the proposed General Plan Update would increase the rate and amount of surface runoff which could result in flooding on- or off-site. The proposed General Plan Update includes programs, goals, and policies in the Flooding and Hydrology Sub-Element to reduce potential flooding hazards. Policy 1 directs the City to update its Storm Drain Master Plan to reflect new hydraulic analysis, built facilities, changing conditions, and the evolving needs of the City. The City will continue to actively participate in regional flood control and drainage improvement efforts to develop and implement mutually beneficial drainage plans to control runoff coming from the northern portion of the City (Policy 3). Policy 6 requires all new development to incorporate adequate flood mitigation measures, such as grading, that prevents adverse drainage impacts to adjacent properties, on-site retention of runoff, and the adequate siting and sizing of structures located within flood plains.

Compliance with federal, state, regional and local regulations and policies included in the proposed 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. Overall, this impact would be reduced to less than significant levels.

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

iv) impede or redirect flood flows?

The proposed General Plan update would allow new development which would increase stormwater runoff. However, runoff would not be expected to exceed the capacity of existing or planning stormwater drainage systems or constitute substantial additional sources of polluted runoff. Future development facilitated by the proposed General Plan Update would be evaluated on a case-by-case basis to assure potential impacts related to stormwater drainage and pollution are precluded. Standard requirements already in place address onsite retention basins, off-site drainage facilities and permits to minimize surface runoff.

In addition, the proposed General Plan Update includes several policies and programs that address continued protection from stormwater exceedances and pollution. Program1.A of the Flooding and Hydrology Sub-Element requires the City to establish local regulations and guidelines to direct the management of runoff and provide for local drainage facilities to minimize surface runoff. Policy 6 of this element requires all new development to incorporate adequate flood mitigation measures, such as grading that prevents adverse drainage impacts to adjacent properties, on-site retention of runoff, and the siting and sizing of adequate structures located within flood plains.

With adherence to and implementation of the proposed General Plan policies and implementation programs, impacts related to the generation of additional runoff, including additional sources of polluted runoff, will be less than significant. Also, said policies and programs also ensure that the capacity of existing and planned drainage facilities will not be exceeded. Therefore, impacts from the volumes and quality of future runoff will be less than significant. No additional mitigation is required.

d) Would the project result in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

As discussed above, limited areas near and adjacent to the Santa Rosa foothills, and tributary drainage from the west, that are subject to 100-year flooding with depths of between one and three feet and areas with an undetermined flood depth (Exhibit 2.10-1). With completion of the Eagle Canyon Dam, much of the southwest portion of the City that was subject to 100-year flood has been removed from this threat.

General Plan Update policies and implementation actions would minimize flooding potential and hazards. Emergency Preparedness Sub-Element Policy 1 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. Policy 4 requires the City to coordinate with FEMA, state agencies, Riverside County, and other jurisdictions to update Flood Insurance Rate Maps for the City. Policy 9 prohibits the construction of critical health and safety facilities within the 100-year flood plain unless flood-proofing or other mitigation measures are implemented. Policy 10 requires flood-prone areas to be considered inappropriate for conventional urban development without appropriate flood control facilities.

The General Plan Update would not expose structures or people to increased flood hazards. Therefore, this impact would be less than significant.

As discussed above, seiche could occur due to leakage of water reservoirs located north of I-10 and in the southern portion of the City. To reduce the potential impact, lands in close proximity to the water reservoirs are designated as Open Space and in proximity to existing drainages. In addition, future development proposals would be evaluated on a case-by-case basis to assure that potential impacts associated with seiche would be minimized. Impacts would be less than significant.

As previously explained, due to its inland location, the City is not susceptible to tsunami. No impact would occur.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

The subsurface groundwater basin in the planning area is managed by CVWD and DWA. The planning area is located within the Colorado River Basin-Region 7 and is covered under its Water Quality Control Plan. This Basin Plan provides definitive guidelines and gives direction to the full scope of Regional Board activities that serve to optimize the beneficial uses of the state waters within the basin by preserving and protecting the quality of these waters. This Basin Plan also encourages water users to improve the quality of their water supplies, particularly where the wastewater they discharge is likely to be reused. The City is required to comply with the Regional Water Control Board standards to protect water quality.

In addition, the proposed General Plan update includes policies and programs that ensure future growth occurs in compliance with water quality control plans and sustainable groundwater management plans. The Flooding and Hydrology Sub-Element requires the construction of on-site stormwater5 facilities, and that the City participates in regional water management plans to protect groundwater. Policies 7, 8, 9, 10 and 11 of the Water Resources Sub-Element also direct the City and developers to provide adequate stormwater water management and retention, protect the aquifer from degradation, maximize infiltration or stormwater, apply Best Management Practices in all phases of development, and intercept and convey urban runoff to community stormwater facilities. In addition, the City is mandated to continue working with CVWD and DWA to avoid any conflicts with water quality control plans and sustainable groundwater management plans. Therefore, the proposed General Plan update would not conflict with or obstruct implementation of any water quality control plan or sustainable groundwater management plan.

2.10.7 Mitigation Measures

No mitigation measures are required. As noted above, the General Plan Flooding and Hydrology Sun-Element and the Water Resources Sub-Elements include policies and programs that will serve to effectively avoid, minimize and otherwise mitigate potentially significant impacts to water resources or water quality, or from existing and future flood hazards that could result from implementation of the General Plan update. The following measures are derived from these two sub-elements and serve to reinforce actions to be taken by the City to ensure that the community remains safe from local and regional flooding hazards and that the community's water resources will be used wisely and will be protected for the long-term.

HYD-1 The City shall continue to partner with and support federal, State, and local agencies in regional planning and management initiatives to promote and enhance water quality in the Whitewater watershed. The City shall also participate in efforts to reduce storm water and urban runoff impacts to water quality, restoration efforts, and regional mitigation, monitoring, and public education programs.

HYD-2 The City shall require all new development to minimize the creation of new impervious to the maximum extent practicable. The City shall also prohibit post-project peak storm water runoff discharge rates from exceeding the estimated pre-project rate by requiring on-site retention.

HYD-3 The City shall require all new developments to include facilities that intercept pollutants prior to storm events during construction to control dust in order to prevent discharge of debris or sediment from the development sites.

HYD-4 The City shall continue to update data and information on hydrologic conditions in the General Plan study area, and plan and pro-actively coordinate with local and regional flood control agencies in upgrading the City's local and regional drainage system.

HYD-5 The City shall monitor and periodically update the Master Plan of Drainage to reflect changes in local and regional drainage and flood conditions.

HYD-6 The City shall require all new developments to retain runoff from rainfall events up to and including the one-hundred-year, three-hour duration event.

HYD-7 The City shall require all new development to incorporate adequate flood mitigation measures, such as grading that prevents adverse drainage impacts to adjacent properties, on-site retention of runoff, and the adequate siting of structures located within flood plains.

HYD-8 The City will ensure that adequate, safe, all-weather crossings over drainage facilities and flood control channels are provided where necessary, and are maintained for access during major storm events.

HYD-9 Require the installation and application of water-conserving technologies, in conformance with Section 17921.3 of the Health and Safety Code, Title 20, California Administrative Code Section 1601(b), and other applicable sections of Title 24 of the Public Code.

HYD-10 Provide information to developers, contractors, property owners and other appropriate parties on the usage and benefits of water conserving bathroom fixtures.

HYD-11 The City shall maintain, update and fully implement a water conserving landscape ordinance, which requires the use of natural and drought-resistant planting materials and efficient irrigation systems in new development.

HYD-12 Coordinate with the Coachella Valley Water District and Desert Water Agency to expand and strengthen educational materials and programs that inform residents of the methods and benefits of water-saving techniques available.

HYD-13 Coordinate with CVWD and DWA regarding the continued use and future expansion of recycled and reclaimed wastewater to serve new and existing development projects.

HYD-14 Coordinate with CVWD and DWA regarding the feasibility and financing of extending sewer facilities to the unsewered areas of the City.

HYD-15 Coordinate with California Regional Water Quality Control Board and other appropriate agencies to share information on potential groundwater contaminating sources, and develop and maintain a system of record and information sharing with these agencies.

HYD-16 Evaluate all proposed land use and development plans for their potential to create groundwater contamination hazards from point and non-point sources, and confer with other appropriate agencies to assure adequate review.

HYD-17 The City shall require all new development, public and private, to meet or exceed State storm water requirements and incorporate best management practices to treat, infiltrate, or filter storm water runoff and reduce pollutants discharged into the storm drain system during construction and post-construction, to the maximum extent practicable.

2.10.8 Significance After Mitigation

With implementation of the policies and programs set forth in the proposed General Plan, the proposed General Plan Update would not result in any significant impacts to hydrological conditions, water supplies or water quality.

2.10.9 Cumulative Impacts

The geographical context for the consideration of cumulative impacts associated with hydrology and water resources and quality is the Whitewater River watershed, in which the City is located and from which it derives its water resources. Future development and redevelopment pursuant to the proposed General Plan update would potentially expose human lives and property to a variety of flooding hazards. Proposed General Plan policies and programs serve to avoid, minimize and mitigate these potential hazards. Implementation of the General Plan will not result in cumulatively considerable new or ongoing flooding threats or hazards.

The implementation of the proposed General Plan will also generate an increased demand for water resources. This demand is comparable to that which would be generated by implementation of the current General Plan. CVWD and DWA closely manage the valley's groundwater resources and have made provision for long-term water supplies that will be available to serve the City and surrounding communities well into the future. Proposed General Plan policies and programs serve to avoid, minimize and mitigate the potential adverse effects of existing and future development on theses finite resources. Implementation of the General Plan will not result in cumulatively considerable new or ongoing threats to local or regional water supplies.

The implementation of the proposed General Plan may generate new sources for urban pollutants, which could impact of surface water quality and groundwater resources. Future development and redevelopment within the watershed would increase impermeable surfaces and decrease water percolation areas. Existing and future construction activities are regulated under the NPDES and Construction General Permit for the State. SWPPPs are required for construction activities in order to reduce pollutants in storm water during temporary ground-disturbing activities.

However, the proposed General Plan update will require the City to continue to participate in regional planning efforts to effectively manage existing and future urban development and to avoid, minimize and mitigate the potential adverse effects of contaminated runoff, erosion, flooding, and other possible sources of water pollution. Proposed General Plan policies and programs serve to avoid, minimize and mitigate the potential adverse effects of existing and future development on local and regional water quality. Implementation of the General Plan will not result in cumulatively considerable new or ongoing threats to local or regional water quality.

2.11 Land Use and Planning

2.11.1 Introduction

This section describes the existing land uses in the City and in the vicinity of the planning area, and evaluates the compatibility of and potential impacts on proposed future land uses as set forth in the proposed General Plan update. General Plan policies and land use designations and assignments proposed by the Proposed Project are provided for evaluation of land use compatibility. Potential land use impacts from implementation of the Project are evaluated. Design elements of the General Plan that serve to avoid or minimize impacts are described, as are mitigation measures that would avoid or reduce impacts. This section includes a brief discussion of a potentially affected Conservation Area established by the Coachella Valley Multiple Species Habitat Conservation Plan (MSHCP). Please refer to Section 2.5 Biological Resources for a comprehensive resource-based discussion of the Project's potential effects on species and habitats covered by the MSHCP. Agricultural land use is briefly discussed in Section 2.3: Agriculture and Forestry Resources.

2.11.2 Thresholds of Significance

The thresholds of significance analyzed herein have been taken from Appendix G of the State CEQA Guidelines. For purposes of this EIR, the Proposed Project would have a significant effect on existing and planned land use if it were to:

a) Physically divide an established community.

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

2.11.3 Regulatory Framework

There are a limited number of federal or state land use regulatory plans that are relevant to the subject General Plan update project. These include regional habitat conservation plans and lands designated as a part of the Santa Rosa and San Jacinto Mountains National Monument (SRSJMNM). The Coachella Valley Multiple Species Habitat Conservation Plan is a federal, state and local habitat management plan, which also regulates or can affect certain land use determinations in the Project planning area. Finally, county and local General Plans and implementing documents also established and regulate the land use pattern on non-federal lands.

Federal

Areas in the City that may be subject to flooding in a 100-year flood event are also identified in the General Plan and include by flood plain mapping prepared by the Federal Emergency Management Agency (FEMA) and the City, and include mapped flood areas adopted by the City on Flood Insurance Rate Maps The federal government (US Fish and Wildlife Service) has issued an "incidental take" permit pursuant to Section 10(a) of the federal Endangered Species Act (ESA) for species covered under the Coachella Valley Multiple Species Habitat Conservation Plan.

State

The State of California has updated its *State General Plan Guidelines* (2017), which sets forth mandated and recommended approaches to updating the City's Land Use Element and other elements of its General Plan. Gov. Code § 65302 (a) directs that the City's land use element designate the proposed general distribution and general

location and extent of the uses of the land for housing, business, industry, open space, including agriculture, natural resources, recreation, and enjoyment of scenic beauty, education, public buildings and grounds, waste disposal facilities, greenways and other categories of public and private uses of land. The location and designation of the extent of the uses of the land for public and private uses is also consider, as is the identification of land and natural resources. The Land Use Element must also include a statement of the standards of population density and building intensity. Within this context and the thresholds established by CEQA, the City's proposed Land Use Element and other relevant element are discussed herein.

Regional/Local

Although not having authority over lands located within the City's corporate limits, the communities of Rancho Mirage, Desert Hot Springs and Palm Springs, as well as Riverside County, share boundaries with Cathedral City. Therefore, to the extent applicable, this EIR evaluates the potential effects of adopting and implementing the proposed General Plan update.

Coachella Valley Multiple Species Habitat Conservation Plan (MSHCP)

The project area of CV Link is located within the planning area for the Coachella Valley Multiple Species Habitat Conservation Plan (MSHCP). The MSCHP is a regional conservation plan coordinated by the Coachella Valley Association of Governments through Coachella Valley Conservation Commission (CVCC) in cooperation with its member jurisdictions and several state and federal agencies. The latter include the California Department of Fish and Wildlife (CDFW), U.S. Fish and Wildlife Service (USFWS), the National Park Service (NPS), Bureau of Land Management (BLM), and U.S. Forest Service (USFS). The MSHCP planning area is comprised of approximately 1.1 million acres in the Coachella Valley, including the project planning area. The possible environmental effects of the proposed General Plan on the MSHCP are evaluated in Section 2.5 of this EIR.

Palm Springs Airport Land Use Plan

The land uses and operations of the Palm Springs International Airport can be affected by surrounding land uses, both existing and planned. The City Land Use Element evaluates the effects the airport can have on the community and the long-term effects or conflicts that the General Pan land use planning can have on the airport. These are briefly discussed below and are examined in greater detail in Section 2.16 of this EIR.

Native American Lands

The Cathedral City corporate limits include lands that are within the Reservation of the Agua Caliente Band of Cahuilla Indians (ACBCI), including lands owned and under the jurisdiction of the Tribe as well as lands that are owned by individual allottees. ACBCI properties are designated as "Trust" or "Tribal", "Allottee", or "Fee". Fee lands are those parcels owned in fee simple by non-Indians; Allotted lands are parcels owned by Tribal members either in trust or in fee; and Tribal parcels are owned by the Tribe as a government, corporation, or organization, and held either in trust by the United States or in fee ("Tribal Lands"). The ACBCI have entered into a land use contract with the City for certain Tribal lands located within its jurisdictional boundaries. In many instances, the Tribal authority and allottees are also assisted by the US Bureau of Indian Affairs in the review and approval of leases, easements and similar permitting, and environmental processing and clearances.

Proposed General Plan Policies

A variety of General Plan policies serve to promote a better integrated mix of land uses in mixed-use and transit-oriented neighborhoods. They also serve to improve the function of and reduce impacts from the City's transportation network by serving to reduce vehicle trips and vehicle miles traveled through better integration of land uses and comprehensive multi-modal transportation system. The following goals and policies are relevant to addressing potential impacts associated with land use assignments and planning proposed in the general Plan update.

Land Use Element: General

Goal 1: A complete, balanced and integrated pattern of land uses appropriately scaled and designed to meet the domestic, productive and social needs of all members of the community, while providing a varied and cohesive fabric that is sustainable, empowering and humanizing.

Goal 2: A land use plan and pattern that preserves and enhances the integrity of neighborhoods, districts and corridors, while optimizing the community's natural assets, local and regional transportation systems and accessibility, and opportunities for housing, employment and economic base-building.

Policy 1: Land use categories and zoning districts shall reflect the Ahwahnee (neo-traditional or new urbanism) Principles by providing land planning and development standards that encourage the creation of integrated and well-served neighborhoods, districts and corridors.

Policy 2: All land use planning shall be directed toward the creation of internally integrated neighborhoods and development districts, which also enhance and optimize their connections to surrounding neighborhoods and districts through enhanced multi-modal access.

Policy 3: The City shall encourage mixed-use development that integrates a mix of residential product, commercial services, recreational areas and open space, and convenient access to alternative transportation, including transit.

Land Use Element: Residential

Policy 2: In-fill development shall be encouraged on partially built-out subdivided lands, where major investments in streets and infrastructure have already been made, while maintaining and enhancing the integrity of the neighborhood.

Policy 3: Development proposals on non-contiguous or isolated lands shall be discouraged to avoid the creation of irregular, disruptive and inefficient development patterns.

Policy 7: In areas undergoing redevelopment and other locations where integrated planning is possible the City shall encourage the thoughtful integration of a mix of residential and commercial uses, including high-density residential development that can take advantage of close and pedestrian-accessible employment and commercial centers, and alternative modes of transportation.

Land Use Element: Commercial

Policy 1: Ensure that neighborhood-serving commercial development is strategically sited within or in proximity of residents and complementary businesses to maximize multi-modal access and minimize the need for vehicle travel to meet daily shopping and other commercial needs.

Community Design Element

Policy 1.3: The City shall continue to take bold and decisive steps to realize a livable, vibrant and sustainable community based on the principles of *New Urbanism*, *Smart Growth* and social equity, and focused on a vision and strategy of economic development and life-enrichment for all of its members.

Policy 3.2: Native desert landscape materials and site-sensitive architectural designs shall be incorporated into all public and private building projects to complement and enhance the functional and aesthetic relationships between the natural and built environments.

Policy 4.1: To the greatest extent practicable, promote residential development that provides a variety of housing types and affordability within a single neighborhood, instead of separating people by income level, age or family situation.

Policy 5.1: As many services and activity areas as possible, including commercial, professional and health services, should be located with convenient multi-modal access, including within easy walking or biking distance of transit stops.

Policy 5.2: The City shall strive for population densities around prospective transit and other multi-modal stops to provide the critical mass of people and activities in these areas needed to make transit and other alternative modes of travel practicable and economically viable.

Policy 5.3: Community and Neighborhood Activity Centers, including squares, plazas and piazzas, shall be established at appropriate locations to encourage public social interaction and a sense of public space

2.11.4 Regional Environmental Setting

The City and the Coachella Valley are located in the central portion of Riverside County at the westernmost limits of the Sonoran Desert, also known as the Colorado Desert. The San Jacinto Mountains and San Bernardino Mountains form the western portions of the valley, while the Little San Bernardino and Santa Rosa Mountains form the northern and southern boundaries, respectively. Much of the urbanization in the City and valley has initially taken place along the toe of the slopes of the Santa Rosa and San Jacinto Mountains, and has spread progressively onto the valley floor and southeastward from the Palm Springs area through Coachella to the communities of Thermal and Mecca.

The region is noted for prime agricultural lands in the eastern valley areas, and for resort residential and world-class tourist developments primarily in the western and central portions of the valley, although this trend is continuing to move east. In the western portions, agriculture developed (primarily dates and citrus) early in the 20th Century gave way to resort, residential and commercial development. The area's natural assets, including mountain views, varied wildlife and sunny weather, and a dependable water supply, have become progressively important to the local economy and environment, and have contributed to the region's character and desirability.

The City and region are served by major transportation arteries, including US Interstate-10, East Palm Canyon Drive/State Highway 111, Highways 74, 62 and 86, and the Union Pacific Railroad, which (as Southern Pacific Railroad) was primarily responsible for opening up the area in the mid-1800s. The Palms Springs International Airport and secondary general aviation facilities also serve the area.

Land Use Designations

Existing and future land uses within the project area are assigned and governed by each jurisdiction's General Plan and/or Tribal Land Use Ordinance. California Government Code Section 65300 requires every city and county to prepare and adopt a "comprehensive, long-term General Plan for the physical development" of the community. The General Plan is further required to provide a land use element that describes and designates land uses by type, location, intensity and/or extent of use. Cathedral City and other jurisdictions in the Coachella Valley have adopted their own General Plan Land Use Element, or Tribal Land Use Ordinance, which assigns future, permitted land uses for lands within jurisdictional boundaries.

2.11.5 Existing Conditions

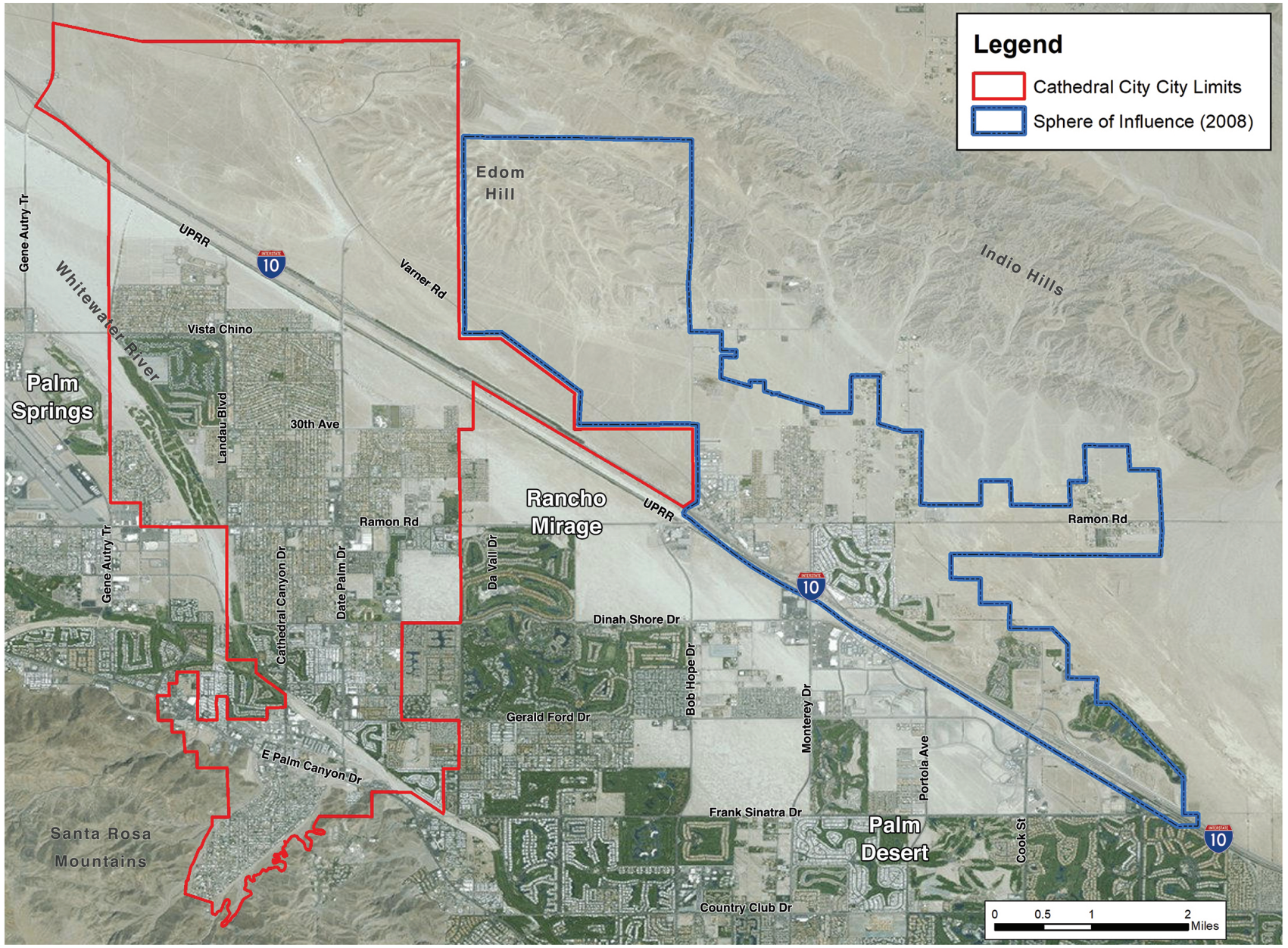
The City's corporate limits, which are the Proposed Project planning area, encompass 14,557± acres or about 22.7 square miles. These lands extend from the foothills of the Santa Rosa Mountains on the south to the western slopes of Edom Hill and the Indio Hills to the north. The City limits are a long north to south area two to three miles wide and approximately nine miles north to south. Its major features include the Whitewater River, which enters the City on the northwest and exists in the southeast. Other major features include East Palm Canyon Drive/Highway 111, which is the modern occurrence of the old Bradshaw Trail, and passes along the toe of slope of the Santa Rosa Mountains. Other major transportation features include US Interstae-10 and the Union Pacific Railroad corridors in the northern portions of the City.

Existing Land Use
As noted, large portions of the City are already developed with a full mix of land uses. Several areas in the already urbanized portions of the City are vacant and available primarily for in-fill development. These include lands abutting the Santa Rosa foothills on the south, portions of the City Downtown both north and south of East Palm Canyon Drive, lands along the west side of Date Palm Drive between Ramon Road and Dinah Shore Drive, and lands adjacent to and near the Whitewater River north and south of Ramon Road. Larger undeveloped lands in the southern portion of the City include the northwest corner of Gerald Ford Drive and Da Vall Drive, east of Date Palm Drive and north of 30th Avenue, and areas west of Date Palm Drive and north of Vista Chino.

North of the Union Pacific Railroad/Interstate-10 corridor, lands are essentially vacant, with the exception of two water reservoirs, wind turbines on the west slope of Edom Hill and electrical transmission towers. Lands in the extreme eastern portion of the City at the intersection of I-10 and Bob Hope Drive are just beginning to develop.

Surrounding Land Use
South of the City's corporate limits are vacant mountainous lands within the jurisdiction of Palm Springs and Rancho Mirage, most or all of which are in conservation. Lands to the west include urbanized areas of Palm Springs, the airport and substantial areas of vacant land within the ACBCI Reservation and west of the Whitewater River. Vacant Palm Springs lands north of Vista Chino and south of the UPRR are within the broad Whitewater River floodplain and will remain vacant.

Vacant lands to the northwest and north of I-10 are within the City of Desert Hot Springs and are also subject to flooding but are slated for development. To the north are vacant County lands portions of which are in conservation and are constrained by earthquake faults and flooding hazards. The Edom Hill land fil is located to the immediate northeast, and lands to the east and north of I-10 are largely vacant, with the exception of sand and gravel operations and limited industrial development east of Rio del Sol. Lands immediately east of the city limits and north of I-10 include the partially developed areas of the community of Thousand Palms.



Source: Esri, City of Cathedral City, 2018

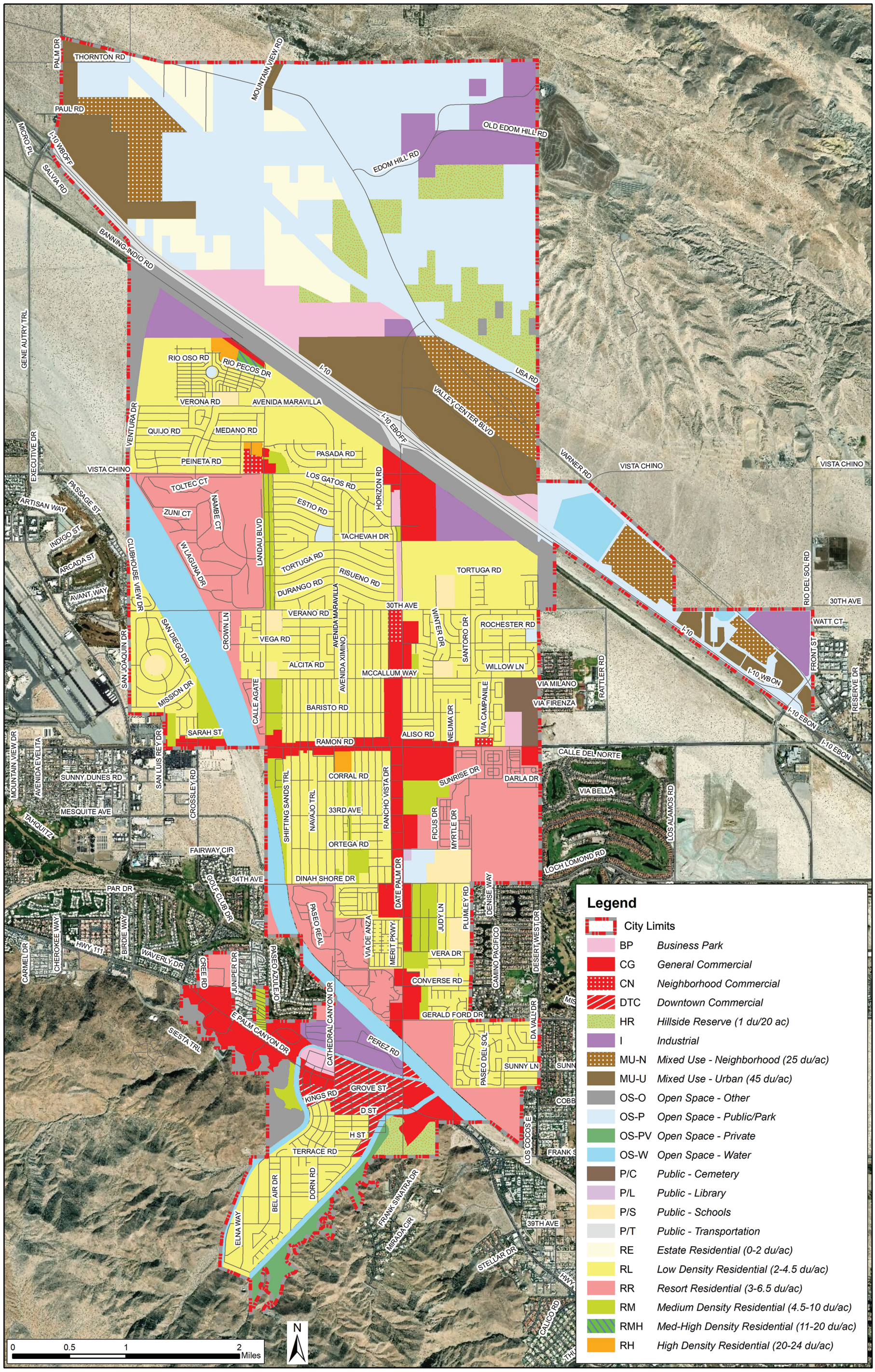
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City of Cathedral City General Plan EIR
City Limits and Sphere of Influence
Cathedral City, California

Cathedral City

Exhibit
2.11-1



10.30.18 Source: City of Cathedral City General Plan, 2009; ESRI 2018, Terra Nova Planning & Research, 2018.

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City of Cathedral City General Plan EIR
Current General Plan Land Use Map
Cathedral City, California

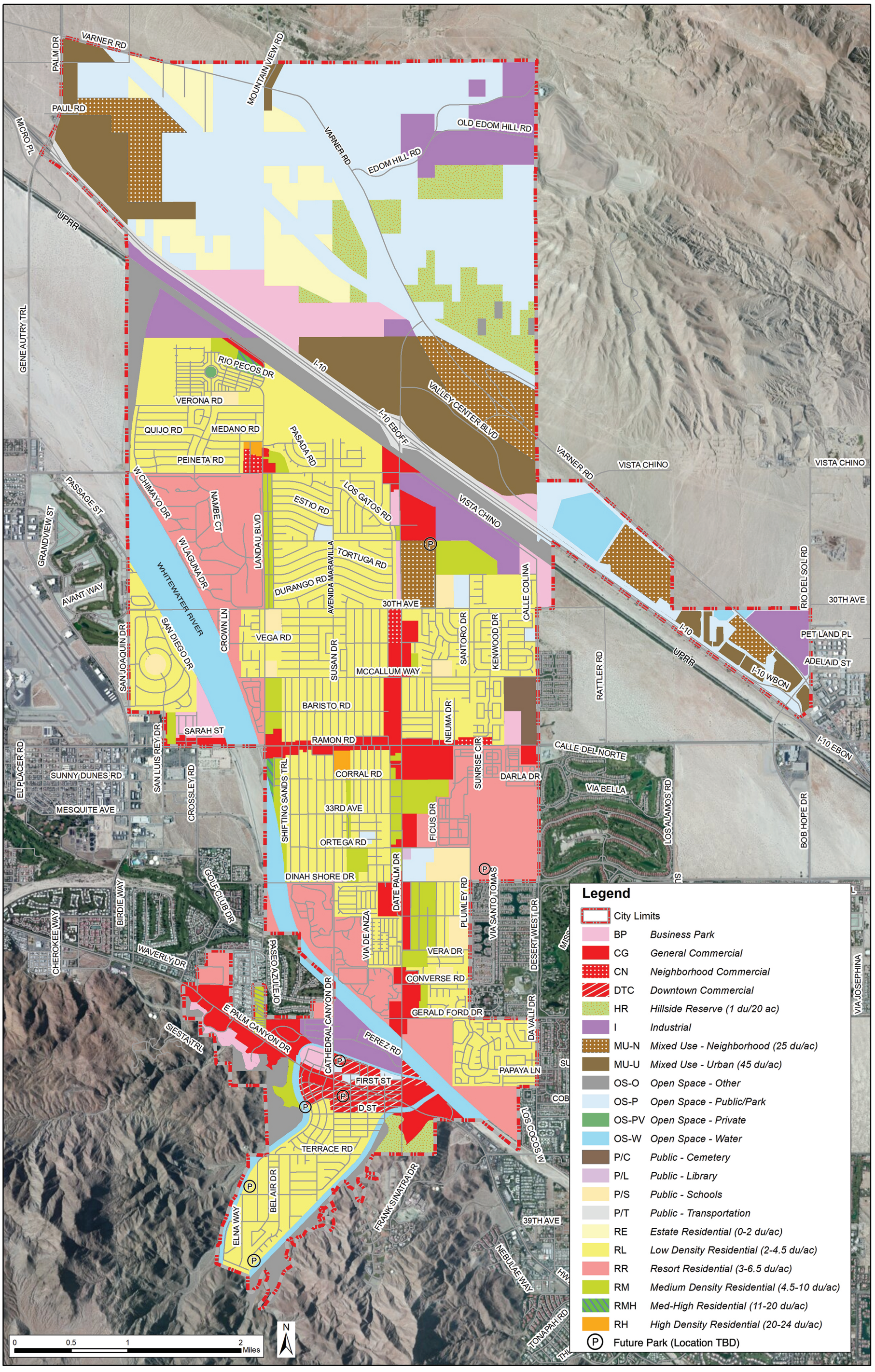
Cathedral City

Exhibit
2.11-2

Table 2.11-1 Cathedral City General Plan (2018) Existing Land Use Table

Land Use Category	ROW Acres	Land Use Acres	Total Acres	Vacant	Percentage Vac. Lands	Developed	Percentage Dev. Lands	Total	Percentage	Existing SF/Units	Potential SF/Units	Buildout SF/Units
Residential												
Hillside Reserve (1du/20ac)	1.76	457.29	459.05	451.23	98.67%	6.06	1.33%	457.29	3.52%	0	23	**23**
Estate Residential (0-2du/ac)	6.92	421.86	428.78	421.27	99.86%	0.59	0.14%	421.86	3.25%	1	632	**633**
Low Density Residential (2-4.5du/ac)	803.30	3358.84	4162.14	977.49	29.10%	2381.35	70.90%	3358.84	25.84%	11,841	3,299	**15,140**
Resort Residential (3-6.5du/ac)	47.43	1339.15	1386.58	944.41	70.52%	394.74	29.48%	1339.15	10.30%	5,153	4,604	**9,757**
Medium Density Res. (4.5-10 du/ac)	38.73	348.75	387.48	100.14	28.71%	248.61	71.29%	348.75	2.68%	4,224	751	**4,975**
Medium-High Density Res. (11-20du/ac)	0.52	14.15	14.67	14.15	100.00%	0.00	0.00%	14.15	0.11%	-	212	**212**
High Density Residential (20-24du/ac)	2.44	38.65	41.09	38.65	100.00%	0.00	0.00%	38.65	0.30%	-	696	**696**
Mixed-Use - Neighborhood	9.24	208.16	217.40	208.16	100.00%	0.00	0.00%	208.16	1.60%	-	4,423	**4,423**
Mixed-Use - Urban	29.86	482.49	512.35	475.67	98.59%	6.82	1.41%	482.49	3.71%		18,194	**18,194**
Total Residential Acreage	**940.20**	**6669.34**	**7609.54**	**3631.17**	**54.45%**	**3038.17**	**45.55%**	**6669.34**	**51.31%**	**21,219**	**32,834**	**54,053**
Commercial												
Neighborhood Commercial	5.62	28.78	34.40	16.99	59.03%	11.79	40.97%	28.78	0.22%	113,011	162,794	**275,804**
General Commercial	132.31	647.06	779.37	280.57	43.36%	366.49	56.64%	647.06	4.98%	3,516,986	2,688,758	**6,205,745**
Downtown Commercial	40.58	113.99	154.57	61.30	53.78%	52.69	46.22%	113.99	0.88%	504,910	587,479	**1,092,389**
Mixed-Use - Neighborhood	13.87	312.54	326.41	312.54	100.00%	0.00	0.00%	312.54	2.40%	-	2,995,133	**2,995,133**
Mixed-Use - Urban	19.91	321.66	341.57	317.11	98.59%	4.55	1.41%	321.66	2.47%	43,600	3,038,932	**3,082,532**
Total Commercial Acreage	**212.29**	**1424.03**	**1636.32**	**988.51**	**69.42%**	**435.52**	**30.58%**	**1424.03**	**10.95%**	**4,178,508**	**9,473,096**	**13,651,604**
Industrial												
Industrial	26.20	645.18	671.38	572.20	88.69%	72.98	11.31%	645.18	4.96%	1,080,870	8,474,503	**9,555,374**
Business Park	17.85	328.92	346.77	252.18	76.67%	76.74	23.33%	328.92	2.53%	1,136,603	3,734,833	**4,871,437**
Total Industrial Acreage	**44.05**	**974.10**	**1018.15**	**824.38**	**84.63%**	**149.72**	**15.37%**	**974.10**	**7.49%**	**2,217,474**	**12,209,337**	**14,426,811**
Open Space												
Open Space - Other	10.64	602.57	613.21	573.65	95.20%	28.92	4.80%	602.57	4.64%	N/A	N/A	**N/A**
Open Space - Public	145.54	2292.12	2437.66	2292.12	100.00%	0.00	0.00%	2292.12	17.63%	N/A	N/A	**N/A**
Open Space - Water	11.45	769.88	781.33	474.43	61.62%	295.45	38.38%	769.88	5.92%	N/A	N/A	**N/A**
Total Open Space Acreage	**167.63**	**3664.57**	**3832.20**	**3340.20**	**91.15%**	**324.37**	**8.85%**	**3664.57**	**28.19%**	**N/A**	**N/A**	**N/A**
Public												
Cemetery	4.64	55.74	60.38	0.00	0.00%	55.74	100.00%	55.74	0.43%	N/A	N/A	**N/A**
Library	0.77	2.80	3.57	0.00	0.00%	2.80	100.00%	2.80	0.02%	N/A	N/A	**N/A**
Schools	7.29	149.38	156.67	0.00	0.00%	149.38	100.00%	149.38	1.15%	N/A	N/A	**N/A**
Transportation	181.20	58.97	240.17	0.00	0.00%	58.97	100.00%	58.97	0.45%	N/A	N/A	**N/A**
Total Public Acreage	**193.90**	**266.89**	**460.79**	**0.00**	**0.00%**	**266.89**	**100.00%**	**266.89**	**2.05%**	**N/A**	**N/A**	**N/A**
Totals	**1558.08**	**12998.92**	**14557.00**	**8784.26**	**67.58%**	**4214.66**	**32.42%**	**12998.92**	**100.00%**			

*Existing and future conditions of Mixed-use, Commercial, and Industrial Land uses are calculated using the following assumptions: residential development is assumed to occur at 75% of the maximum density permitted, 22% lot coverage for commercial and mixed-use development, and 34% lot coverage for industrial development. Mixed-use Neighborhood is developed as 60% commercial and 40% residential. Mixed-use Urban is developed as 60% residential and 40% commercial. Updated 5.30.19



05.22.19 Source: City of Cathedral City General Plan, 2009; ESRI 2019, City of Cathedral Ciity and Terra Nova Planning & Research, 2019.

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City of Cathedral City General Plan EIR
Proposed General Plan Land Use Map
Cathedral City, California

Cathedral City

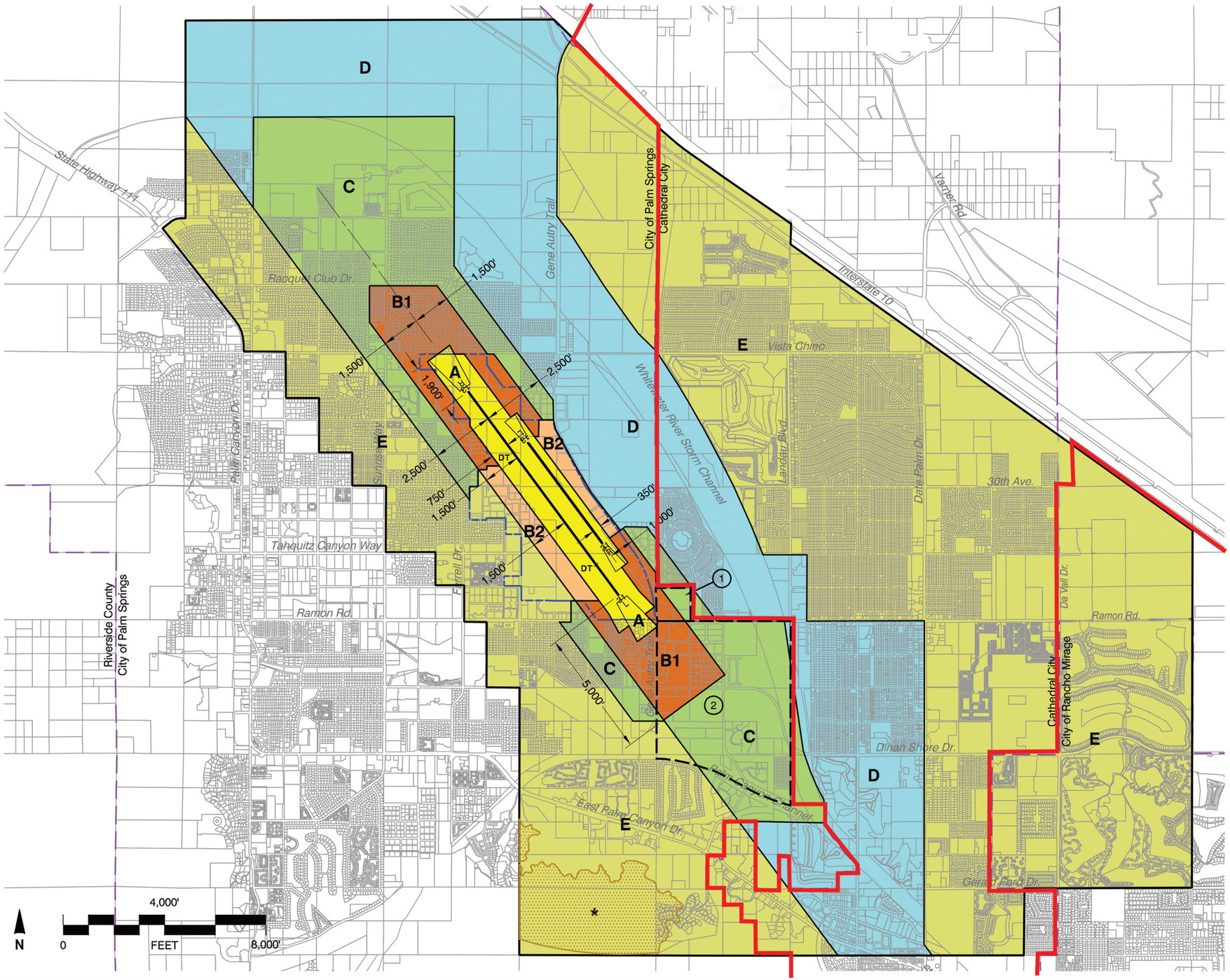
Exhibit

2.11-3

Table 2.11-2 Cathedral City General Plan (2018) Proposed Land Use

Land Use Category	ROW Acres	Land Use Acres	Total Acres	Vacant	Percentage of Vacant Lands	Developed	Percentage Developed Lands	Total	Percentage	Existing SF/Units	Potential SF/Units*	Buildout SF/Units*
Residential												
Hillside Reserve (1du/20ac)	1.77	457.28	459.05	451.22	98.67%	6.06	1.33%	457.28	3.52%	0	23	**23**
Estate Residential (0-2du/ac)	8.09	420.69	428.78	420.10	99.86%	0.59	0.14%	420.69	3.24%	1	630	**631**
Low Density Residential (2-4.5du/ac)	791.59	3144.12	3935.71	762.77	24.26%	2381.35	75.74%	3144.12	24.19%	11,841	2,574	**14,415**
Resort Residential (3-6.5du/ac)	46.62	1337.54	1384.16	942.80	70.49%	394.74	29.51%	1337.54	10.29%	5,153	4,596	**9,749**
Medium Density Res (4.5-10du/ac)	47.21	415.26	462.47	166.65	40.13%	248.61	59.87%	415.26	3.19%	4,224	1,250	**5,474**
Medium-High Density Res (11-20du/ac)	0.53	21.53	22.06	21.53	100.00%	0.00	0.00%	21.53	0.17%	-	323	**323**
High Density Residential (20-24du/ac)	2.01	38.43	40.44	38.43	100.00%	0.00	0.00%	38.43	0.30%	-	692	**692**
Mixed Use - Neighborhood	9.25	240.64	249.89	240.64	100.00%	0.00	0.00%	240.64	1.85%	-	5,114	**5,114**
Mixed Use - Urban	29.86	482.49	512.35	475.67	98.59%	6.82	1.41%	482.49	3.71%		18,194	**18,194**
Total Residential Acreage	**936.93**	**6557.98**	**7494.91**	**3519.81**	**53.67%**	**3038.17**	**46.33%**	**6557.98**	**50.45%**	**21,219**	**33,396**	**54,615**
Commercial												
Neighborhood Commercial	6.55	32.42	38.97	20.63	63.63%	11.79	36.37%	32.42	0.25%	112,986	197,701	**310,687**
General Commercial	129.27	559.73	689.00	193.24	34.52%	366.49	65.48%	559.73	4.31%	3,516,986	1,851,858	**5,368,844**
Downtown Commercial	37.54	93.39	130.93	40.70	43.58%	52.69	56.42%	93.39	0.72%	504,939	390,036	**894,975**
Mixed Use - Neighborhood	13.87	360.98	374.85	360.98	100.00%	0.00	0.00%	360.98	2.78%	-	3,459,344	**3,459,344**
Mixed Use - Urban	19.91	321.66	341.57	317.11	98.59%	4.55	1.41%	321.66	2.47%	43,604	3,038,929	**3,082,532**
Total Commercial Acreage	**207.14**	**1368.18**	**1575.32**	**932.66**	**68.17%**	**435.52**	**31.83%**	**1368.18**	**10.53%**	**4,178,508**	**8,937,867**	**13,116,382**
Industrial												
Industrial	26.20	761.38	787.58	688.40	90.41%	72.98	9.59%	761.38	5.86%	1,080,863	10,195,479	**11,276,342**
Business Park	24.54	439.26	463.80	362.52	82.53%	76.74	17.47%	439.26	3.38%	1,136,550	5,369,066	**6,505,616**
Total Industrial Acreage	**50.74**	**1200.64**	**1251.38**	**1050.92**	**87.53%**	**149.72**	**12.47%**	**1200.64**	**9.24%**	**2,217,413**	**15,564,546**	**17,781,959**
Open Space												
Open Space - Other	10.73	528.61	539.34	499.69	94.53%	28.92	5.47%	528.61	4.07%	N/A	N/A	**N/A**
Open Space - Public	150.08	2303.85	2453.93	2303.85	100.00%	0.00	0.00%	2303.85	17.72%	N/A	N/A	**N/A**
Open Space - Water	8.56	772.77	781.33	477.32	61.77%	295.45	38.23%	772.77	5.94%	N/A	N/A	**N/A**
Total Open Space Acreage	**169.37**	**3605.23**	**3774.60**	**3280.86**	**91.00%**	**324.37**	**9.00%**	**3605.23**	**27.73%**	**N/A**	**N/A**	**N/A**
Public												
Cemetery	4.64	55.74	60.38	0.00	0.00%	55.74	100.00%	55.74	0.43%	N/A	N/A	**N/A**
Library	0.77	2.80	3.57	0.00	0.00%	2.80	100.00%	2.80	0.02%	N/A	N/A	**N/A**
Schools	7.29	149.38	156.67	0.00	0.00%	149.38	100.00%	149.38	1.15%	N/A	N/A	**N/A**
Transportation	181.20	58.97	240.17	0.00	0.00%	58.97	100.00%	58.97	0.45%	N/A	N/A	**N/A**
Total Public Acreage	**193.90**	**266.89**	**460.79**	**0.00**	**0.00%**	**266.89**	**100.00%**	**266.89**	**2.05%**	**N/A**	**N/A**	**N/A**
Totals	**1558.08**	**12998.92**	**14557.00**	**8784.25**	**67.58%**	**4214.67**	**32.42%**	**12998.92**	**100.00%**			

*Existing and future conditions of Mixed-Use, Commercial, and Industrial land uses are calculated using the following assumptions: residential development is assumed to occur at 75% of the maximum density permitted, 22% lot coverage for commercial and mixed-use development, and 34% lot coverage for industrial development. Mixed-use Neighborhood is developed as 60% commercial and 40% residential. Mixed-use Urban is developed as 60% residential and 40% commercial. Updated 5.30.19



Legend

Compatibility Zones

- Airport Influence Area Boundary
- Zone A
- Zone B1
- Zone B2
- Zone C
- Zone D
- Zone E
- Height Review Overlay Zone

Boundary Lines

- Airport Property Line
- City Limits
- Cathedral City City Limits

Notes

All dimensions measured from runway ends and centerlines.

DT = Displaced Threshold

Source: Riverside County Airport Land Use Compatibility Plan Policy Document, March 2005

08.29.18

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City of Cathedral City General Plan EIR
Airport Land Use Compatibility Map
Cathedral City, California

Cathedral City

Exhibit
2.11-4

2.11.6 Project Impacts

Limited Scale Land Use Changes
Proposed General Plan update (Proposed Project) does not constitute a radical departure from the current General Plan. Rather, the Proposed Project makes a series of relatively small adjustments to the City's current land use allocations with a few more substantial changes which are discussed below. The bulk of the minor changes in land use are located in the southern portions of the City and include changes of lands currently designated as General Commercial to Business Park, primarily along the toe of slope of the Santa Rosa foothills.

On the west side of the City north of Ramon Road and west of the Whitewater River, lands that have been designated for low and medium density residential are proposed to change to Business Park. These lands have been available for residential development for many years but have not attracted interest and the proposed business park designation is consistent with existing land uses to the south.

Other minor changes include the proposed re-designation of currently General Commercial lands on the west side of Date Palm Drive from General Commercial to Medium Density Residential between Ramon Road and Dinah Shore. This area is comprised of small lots with limited and older commercial development but with several newer multi-family developments. The hope is that this trend toward residential will be further encouraged with this re-designation.

Also, on a limited scale, the proposed Land Use Map would change a strip of land located between the UPRR lines and I-10, north of Avenida Maravilla and east of the Whitewater River drainage, from Public Transportation to Industrial. While there are challenges in developing these lands, it is felt that additional industrial at this location would be compatible with the transportation corridors that bound it on the north and south.

Major Land Use Changes
There are only two areas where more substantial changes in land use designations are proposed in the General Plan update. These lands are located east of Date Palm Drive and north of 30th Avenue and involve the assignment of additional industrial lands and Mixed-Use Neighborhood and Medium Density Residential, as described below.

At the northeast corner of Date Palm Drive and 30th Avenue, approximately 80 acres currently designated Low Density Residential is proposed to be re-designated to Mixed-Use Neighborhood. Adjoining lands to the east would also be increased in density from Low Density to Medium Density Residential. The Mixed-Use designation will allow in the integration of commercial and other services with residential densities of up to 25 units per acre. The additional Medium Density Residential could also help the planned Mixed Use Neighborhood lands to support transit-oriented development, thereby increasing land use efficiencies and reducing vehicular trips and vehicle miles traveled. This change is also supported by the proximity of schools and parklands to these residential areas.

The other larger area of proposed change is north of the aforementioned residential area and immediately south of the UPRR lines. The proposed land use changes would reduce the still substantial amount of General Commercial at the southwest corner of date Palm Drive and Vista Chino, increase the amount of industrial lands in an area constrained by drainage, high winds and transportation noise. It would also re-designate a limited amount of industrial lands with these same constraints from Low Density Residential to Business Park, and also assign Business Park to lands east of Da Vall Drive that are current (and erroneously) designated Public Transportation.

a) Physically divide an established community.

None of the proposed land use, goals, policies or programs set forth in the proposed General Plan update will act to physically divide an established community. The proposed Plan provides additional opportunities to create mixed-use and transit-oriented neighborhood on currently vacant lands and in the repurposing of vacated buildings and

underutilized sites, as set forth in the Land Use Element and in the Community Design Element. No new arterial roadways or other potential neighborhood-dividing development are facilitated by the Proposed Project. Policies and programs are proposed that encourage the expansion of the City's multi-modal transportation system, including the implementation of *Complete Streets* design principles and the new *Active Transportation Plan*, which is an integral part of the Proposed Project.

For instance, Land Use Element Goal 1 promotes a balanced and integrated pattern of land uses to meet the domestic, productive and social needs of all members of the community, while Goal 2 promotes a land use pattern that preserves and enhances the integrity of neighborhoods and opportunities for housing, employment and economic base-building. Policy 1 directs the application of New Urbanism and related planning concepts to community planning and design, while Policy 2 directs the creation of internally integrated neighborhoods and development districts with enhanced and optimized multi-modal access and connections to surrounding neighborhoods and districts. Land Use Element Policy 3 encourages mixed-use development that integrates a mix of residential product, commercial services, recreational areas and open space, and convenient access to alternative transportation, including transit.

In summary, the Proposed Project will result in a more integrated and balanced City and neighborhoods that promote community and social cohesion, and will not result in the physical or social division of the City's various neighborhoods. Therefore, there will be no adverse impacts in this regard.

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

The City's corporate limits abut and in a few areas encroach into the boundaries of the Santa Rosa and San Jacinto Mountains National Monument (SRSJMNM). The City designates public lands in these areas as Open Space-Public and the limited private lands that occur there as Hillside Reserve (1 du/20 acres). Areas of steep terrain and with other development constraints are well regulated by the proposed general Plan, which will not conflict with the plans and regulations of the National Monument.

The potential for the Proposed Project to conflict with the Coachella Valley Multiple Species Habitat Conservation Plan are discussed in detail in Section 2.5 of this EIR. MSHCP lands that occur in the City are designated for Conservation and are subject to that Plan's *Land Use Adjacency Guidelines.* The City also otherwise complies with the MSHCP provisions for proposed development within the Conservation Areas of the MSHCP. Therefore, the Proposed Project is in conformance and will not conflict with the MSHCP.

The subject General Plan update has been developed in conformance with the requirements and guidance of the *State General Plan Guidelines.* It also conforms to the various statutes and Government Code sections that direct the development of General Plan.

The Palm Springs International Airport master plan sets forth land use compatibility mapping that is designed to provide for the general health and safety of the surrounding community and to ensure that development of lands surrounding the airport will not be incompatible with the airports existing or long-term plans and operations. Most of the City occurs within Compatibility Zones D and E, which are the least restrictive. A small portion is located within Zone C but primarily are lands in the Whitewater River where no development will occur; however, a small developed portion of the "Dream Homes" neighborhood also occurs in this zone but is outside the long-term 60 CNEL noise contour. At a single point, the City limits touch Zone E but only a small area is within the 60 CNEL noise contour. In certain instances, the City may require that proposed developments be reviewed by the Riverside County Airport Land Use Commission, which will further ensure that the General Plan and its implementation does not conflict with the airport land use plan.

The Agua Caliente Band of Cahuilla Indians (ACBCI) has Tribal, allottee and fee lands within the Cathedral City limits and the Tribe and the City have entered into a Land Use Contract for the planning and management of these lands. The Tribe authorizes the City to manage the development of these lands, although it reserves the right to exercise its own authority in rare cases. The Tribe recognizes the City's General Plan and Land Use Plan; therefore, the Proposed Project does not conflict with a Tribal land use plan.

2.11.7 Mitigation Measures

As discussed above, the Proposed Project will not physically divide an established community nor will it create new communities that would be divided or isolated from commercial, professional or other community services. Therefore, no mitigation is required. As noted above, the proposed General Plan incorporates a wide range of policies and programs, implementation of which will preclude or otherwise address land use compatibility issues as they arise. However, in order to assure that potential changes in land use are adequately assessed, the following mitigation measures shall be implemented.

LU-1. Individual proposed projects, especially those involving a mix of residential and other uses, as well as those located nearby or adjacent to sensitive lands or uses, shall be fully evaluated during the project review process to assure that all land use compatibility issues are addressed and mitigated.

2.11.8 Significance After Mitigation

The Proposed Project will not result in or create any significant land use conflicts nor will it divide an existing community or neighborhood or one that may be created pursuant to the proposed General Plan. Therefore, no mitigation is required and there will be no significant residual environmental effects.

2.11.9 Cumulative Impacts

The implementation of the proposed General Plan update will not contribute to the physical creation of divided or isolated communities. Rather, it will serve to ensure that such impacts do not occur in the future and will also serve to better integrate and unify the City's existing neighborhoods. Neither will the Proposed Project cause any significant environmental impacts due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, the Proposed Project will not result in impacts that cumulatively considerable.

2.12 Noise

2.12.1 Introduction

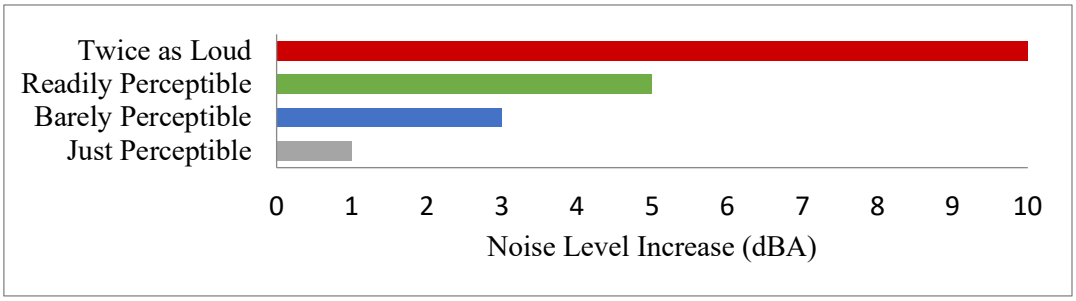
This section of the EIR describes existing conditions with regard to the local noise environment within the City planning area and analyzes the potential impacts of the Proposed Project to surrounding sensitive receptors. Continued buildout of the City will take place adjacent to noise-sensitive land uses and, therefore, will introduce both temporary and long-term noise increases on the existing ambient noise environment. A wide range of data and information, ranging from research to regional-scale planning and environmental documents, have been used in researching and analyzing the project and its potential effects. The Cathedral City General Plan Update Noise and Vibration Impact Analysis was also prepared to analyse the potential impacts of the implementation of the proposed General Plan on the community.[1]

Noise Fundamentals

This discussion describes terminology associated with noise measurements. Noise is measured on a logarithmic scale of sound pressure level known as a decibel (dB). A-weighted decibels (dBA) approximate the subjective response of the human ear to broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. Since the range of intensities that the human ear can detect is so large, the scale frequently used to measure intensity is a scale based on multiples of 10. Measuring intensity using the decibel scale, each interval of 10 decibels indicates a sound energy ten times greater than before, which is perceived by the human ear as being roughly twice as loud.

The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at three feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA at approximately 100 feet, which can cause serious discomfort. An increase or decrease of 1 dBA cannot be perceived except in carefully controlled laboratory experiments, a change of 3 dBA are considered barely perceptible, and changes of 5 dBA are considered readily perceptible[2].

Chart 2.12-1: Noise Level Increase Perception



Another important aspect of noise is the duration of the sound and the way it is described and distributed in time. To describe the time-varying character of environmental noise, the statistical or percentile noise descriptors L_{50}, L_{25}, L_8 and L_2, are commonly used. The percentile noise descriptors are the noise levels equaled or exceeded during 50 percent, 25 percent, 8 percent and 2 percent of a stated time. Sound levels associated with the L_2 and L_8 typically describe transient or short-term events, while levels associated with the L_{50} describe the steady state (or median) noise conditions. Most noise codes rely on percentile noise levels to describe the stationary source noise level limits. While the L_{50} describes the mean noise levels occurring 50 percent of the time, the Leq accounts for the total energy (average) observed for the entire hour. Therefore, the Leq noise descriptor is generally 1-2 dBA higher than the L_{50} noise level.

[1] Cathedral City General Plan Update Noise and Vibration Impact Analysis, prepared by Urban Crossroads, Inc. April 23, 2019. (see Appendix D of this EIR).

[2] U.S. Department of Transportation, Federal Highway Administration, Office of Environment and Planning, Noise and Air Quality Branch, June, 1995

Peak hour or average noise levels, while useful, do not completely describe a given noise environment. Noise levels lower than peak hour may be disturbing if they occur during times when quiet is most desirable, namely evening and nighttime (sleeping) hours. To account for this, the Community Noise Equivalent Level (CNEL), representing a composite 24-hour noise level is utilized. The CNEL is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time of day corrections require the addition of 5 decibels to dBA Leq sound levels in the evening from 7:00 p.m. to 10:00 p.m., and the addition of 10 decibels to dBA Leq sound levels at night between 10:00 p.m. and 7:00 a.m. These additions are made to account for the noise sensitive time periods during the evening and night hours when sound appears louder. CNEL does not represent the actual sound level heard at any particular time, but rather represents the total sound exposure. The local cities, including Cathedral City, and the County rely on the 24-hour CNEL level to assess land use compatibility with most noise sources.

2.12.2 Thresholds of Significance

Standards and guidelines establishing thresholds of significance have been taken from Appendix G: of the California Environmental Quality Act (CEQA). The following factors have been considered in analyzing potential noise-related impacts that can result from the construction of the subject channel improvements. Project impacts associated with noise are considered significant if the project would result in:

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;

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

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels;

2.12.3 Regulatory Framework

Introduction

The federal government, the State of California, various county governments, and most municipalities in the state have established standards and ordinances to control noise and to limit population exposure to physically and/or psychologically damaging as well as intrusive noise levels. In most areas, automobile and truck traffic is the major source of environmental noise. Traffic activity generally produces an average sound level that remains constant with time. Air and rail traffic, and commercial and industrial activities are also major sources of noise in some areas. Federal, state, and local agencies regulate different aspects of environmental noise. Federal and state agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies.

Federal

There are no specific federal regulations that apply to the proposed General Plan update. However, the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment has been used to analyse the potential effects of such noise sources on the community. The FTA assessment methodology identifies detailed assessment criteria. Therefore, this General Plan analysis relies on the FTA thresholds for land uses adjacent to future development as part of the General Plan update project.

State

California Noise Control Act

The State Guidelines were published in 1976 as a requirement of Health and Safety Code Section 46050(g), also known as the California Noise Control Act.[3] The guidelines recommend acceptable exterior noise levels for various land uses. Under the State Guidelines, an exterior noise level of 70 dBA Ldn/CNEL is typically the dividing line between an acceptable and unacceptable exterior noise environment for all noise-sensitive uses, including schools, libraries, churches, hospitals, day care centers, and nursing homes of conventional construction. Noise levels below 75 dBA Ldn/CNEL are typically acceptable for office and commercial buildings, while levels up to 80 dBA Ldn/CNEL are typically acceptable for industrial uses. Section 65302(f)(1) of the California Government Code requires that each jurisdiction recognize the State Guidelines while preparing its General Plan; however, the California Government Code does not mandate application of the compatibility matrix to development projects.

Regional/Local

Proposed General Plan Noise Sub-Element

The City's proposed General Plan Noise Sub-Element relies on CNEL standards, consistent with other jurisdictions in the Coachella Valley. Relevant policies of the Noise Element include:

> **Policy 1:** Protect noise sensitive land uses, including residential neighborhoods, schools, hospitals and assisted living facilities, libraries, churches, resorts and community open space, from high noise levels generated along major transportation corridors.
>
> **Policy 2:** The relationship between land use designations in the Land Use Element and changes in the circulation pattern of the City, as well as individual developments, shall be monitored and mitigated.
>
> **Policy 3:** Private sector project proposals shall include measures that assure that noise exposures levels comply with State of California noise insulation standards as defined in Title 25 (California Noise Insulation Standards).
>
> **Policy 4:** Maintain a circulation map which ensures low levels of traffic within residential neighborhoods, and assigns truck routes to major roadways only.
>
> **Policy 5:** Maintain an ongoing contact with the Palm Springs Airport to ensure that flight paths and airport improvements and operations do not impact or extend noise contours into the City.
>
> **Policy 6:** Coordinate with adjoining municipalities to ensure noise-compatible land uses across jurisdictional boundaries.
>
> **Policy 7:** The City shall restrict grading and construction activities that may impact residential neighborhoods to specified days of the week and times of day as set forth in the City Noise Ordinance.
>
> **Policy 8:** The City shall evaluate and condition all development and other construction projects that have the potential to impact sensitive nearby land uses.

Cathedral City Municipal Code

To analyze noise impacts originating from a designated fixed location or private property, stationary-source (operational) noise is typically evaluated against standards established under a City's Municipal Code. For noise-sensitive residential properties, the Municipal Code identifies operational noise level limits for the daytime (7:00

[3] These guidelines are most currently published by California Governor's Office of Planning and Research in State of California General Plan Guidelines, Appendix C: Guidelines for the Preparation and Content of the Noise Element of the General Plan, Office of Planning and Research, 2017.

a.m. to 10:00 p.m.) hours of 65 dBA Leq and 50 dBA Leq during the nighttime (10:00 p.m. to 7:00 a.m.) hours. For non-noise-sensitive commercial and industrial properties, the Municipal Code identifies operational noise level limits for the daytime (7:00 a.m. to 10:00 p.m.) hours of 85 dBA Leq and 55 dBA Leq during the nighttime (10:00 p.m. to 7:00 a.m.) hours.

2.12.4 Regional Environmental Setting

Excessive and/or sustained noise, including ground-born noise and vibration, can contribute to both temporary and permanent physical impairments, such as hearing loss and increased fatigue, as well as stress, annoyance, anxiety, and other psychological reactions in humans. The evaluation and mitigation of noise in a community is essential to protecting the health and welfare of the general public, and preserving the inherent value of recreation, open space and conservation lands. Furthermore, it can help define the need for additional remedial measures, which mitigate noise problems.

Regional Noise Sources
The City and Coachella Valley are subject to a wide range of noise sources, both stationary and mobile. Stationary noise sources include those associated with industrial processes and operations, as well as service commercial businesses such as auto repair shops, fabrications businesses, electrical and natural gas substations, wind turbines, heating/ventilation/air conditioning (HVAC) systems and other fixed sources. Mobile noise sources are predominantly motor vehicles, aircraft operations and overflights and railroad traffic. Some of the mobile sources, such as aircraft and train noise, are intermittent but can be highly intrusive, while motor vehicle traffic is generally a constant that varies to some degree during the day and with changes in traffic volumes.

Land Use Compatibility
Elevated ambient noise levels can have a direct impact on the desirability of parks and open space, residential and other use of lands by the community and businesses, and can negatively affect their long-term social and economic viability. For this reason, land use compatibility with the surrounding noise environment is one of the most important aspects of a noise impact analysis. This includes the identification of sensitive receptors that are particularly sensitive to noise intrusion, such as residences, schools, libraries, churches, hospitals and other health care facilities, and nursing homes. Day care centers, parks, and other outdoor recreation and conservation areas may also be considered sensitive receptors. Moderately sensitive land uses include cemeteries, golf courses, country clubs, hotels and motels, and dormitories.

The least sensitive uses include commercial and industrial developments, heavy manufacturing facilities, agricultural lands, parking lots, warehousing operations, and transit terminals. Noise standards have been developed by a variety of agencies to help reduce noise impacts to sensitive receptors and to enhance the overall noise environment of urban areas. Most local jurisdictions have adopted noise ordinances, which specify acceptable interior noise standards for various land uses. The California Office of Noise Control has established noise control guidelines to be used in developing Noise Elements of municipal General Plans, as shown in Table 2-12-1, below.

Table 2.12-1
Typical Noise Levels

COMMON OUTDOOR ACTIVITIES	COMMON INDOOR ACTIVITIES	A - WEIGHTED SOUND LEVEL dBA	SUBJECTIVE LOUDNESS	EFFECTS OF NOISE
THRESHOLD OF PAIN		140	INTOLERABLE OR DEAFENING	HEARING LOSS
NEAR JET ENGINE		130		
		120		
JET FLY-OVER AT 300m (1000 ft)	ROCK BAND	110		
LOUD AUTO HORN		100	VERY NOISY	
GAS LAWN MOWER AT 1m (3 ft)		90		
DIESEL TRUCK AT 15m (50 ft), at 80 km/hr (50 mph)	FOOD BLENDER AT 1m (3 ft)	80		SPEECH INTERFERENCE
NOISY URBAN AREA, DAYTIME	VACUUM CLEANER AT 3m (10 ft)	70	LOUD	
HEAVY TRAFFIC AT 90m (300 ft)	NORMAL SPEECH AT 1m (3 ft)	60		
QUIET URBAN DAYTIME	LARGE BUSINESS OFFICE	50	MODERATE	SLEEP DISTURBANCE
QUIET URBAN NIGHTTIME	THEATER, LARGE CONFERENCE ROOM (BACKGROUND)	40		
QUIET SUBURBAN NIGHTTIME	LIBRARY	30	FAINT	NO EFFECT
QUIET RURAL NIGHTTIME	BEDROOM AT NIGHT, CONCERT HALL (BACKGROUND)	20		
	BROADCAST/RECORDING STUDIO	10	VERY FAINT	
LOWEST THRESHOLD OF HUMAN HEARING	LOWEST THRESHOLD OF HUMAN HEARING	0		

Source: Environmental Protection Agency Office of Noise Abatement and Control, Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety (EPA/ONAC 550/9-74-004) March 1974

2.12.5 Existing Conditions

Traffic Noise Analysis

As part of the 2040 General Plan update an exterior noise impact analysis was completed to determine the existing and future transportation-related noise levels and to identify potential necessary mitigation measures for future uses within the City. The analysis indicates the primary source of future noise impacts will be traffic-related noise from US I-10, other City roadways, and rail-related noise from Union Pacific Railroad (UPRR) lines. These are collectively referred to as "transportation corridors".

Traffic generated by buildout of the proposed 2040 General Plan will influence the traffic noise levels at land uses adjacent to study area roadways throughout Cathedral City. To quantify the traffic noise level increases at adjacent land uses, the changes in traffic noise levels on 39 roadway segments in the study area were calculated based on the change in the average daily traffic (ADT) volumes. The future traffic noise levels are based on the traffic forecasts found in the General Plan *Transportation Analysis* (see Appendix E of this EIR).

To assess the off-site noise level impacts associated with the 2040 General Plan buildout, noise contour boundaries were developed for existing conditions (2017/2018) and General Plan Buildout (2040) traffic conditions. A comparison of the 2009 General Plan Buildout to the 2040 General Plan Buildout shows that the buildout traffic noise level increases will be less than significant in 2040, as further discussed below.

Existing Noise Level Measurements and Analysis

Noise Measurement Methods

Short-term (10-minute increments) and long-term (24-hour) community noise level measurements were taken at representative and during mid-April, which falls into the tail-end of peak season. The long-term noise levels were measured during a typical weekday with hourly noise level measurements to describe the daytime and nighttime hourly noise levels and to calculate the 24-hour CNEL. All short-term noise level measurements were collected using a "slow" mode to record noise levels in "A" weighted form. All noise level measurement equipment satisfies the American National Standards Institute (ANSI) standard specifications for sound level meters. Exhibit 2.12-1 shows the locations of the noise monitoring sites for the General Plan update analysis.

Long-Term Measurement Results

Table 2.12-2 summarizes the noise levels at existing land uses. Appendix 5.2 of the General Plan Noise Study provides a summary of the existing hourly ambient noise levels (see Appendix D of this EIR).

Table 2.12-2
24-Hour Long-Term Ambient Noise Levels

Location[1]	Land Use	Description	Energy-Average Noise Level (dBA L_{eq})[2]		CNEL
			Daytime	Nighttime	
L1	Commercial & Residential	Located near Palm Drive, north of I-10, and existing commercial and residential uses in a vacant lot.	58.7	59.2	66.0
L2	Residential & School	Located near existing residential homes and Rio Vista Elementary School, south of I-10 and the UPRR lines, west of Landau Boulevard.	54.9	58.4	64.6
L3	Vacant	Located north of I-10 on Date Palm Drive near existing vacant land.	67.2	66.3	73.3
L4	Residential, Recreation, & School	Located near existing residential homes and Landau Elementary School on Landau Boulevard.	66.2	60.4	68.7
L5	Residential & School	Located on Santoro Drive near existing residential homes and James Workman Middle School.	53.6	53.4	60.3
L6	Commercial	Located south of Ramon Road near existing commercial uses, southeast of Palm Springs International Airport.	59.3	56.1	63.4
L7	Commercial & Residential	Located west of Date Palm Drive near existing commercial and residential uses north of Ramon Road.	55.8	51.5	59.3
L8	Commercial & Residential	Located south of Dina Shore Drive, east of Date Palm Drive, near existing commercial and residential uses.	58.8	54.2	61.9
L9	Commercial	Located near Highway 111 and Perez Road, adjacent to existing commercial and automobile dealership uses.	61.3	55.5	63.9
L10	Commercial & Recreation	Located on Cathedral Canyon Drive near an existing recreational vehicle resort and commercial uses.	72.2	65.5	74.2
L11	Residential	Located near existing residential homes west of Da Vall Drive and south of Sunny Lane.	57.2	50.6	59.2
L12	Vacant	Located north of I-10 near Varner Road and existing vacant land.	62.8	63.1	69.7

[1] See Exhibit 5-A of the Cathedral City General Plan Update Noise and Vibration Impact Analysis, prepared by Urban Crossroads, Inc. April 23, 2019 for the noise level measurement locations.[2] Energy (logarithmic) average hourly levels. The long-term 24-hour measurement worksheets are included in Appendix 5.2."Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.



LEGEND:

- Long-Term Noise Measurement Location
- Short-Term Noise Measurement Location
- Cathedral City Boundaries

Source: Urban Crossroads, 2019

N

06.26.19

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City of Cathedral City General Plan EIR
Noise Monitoring Sites
Cathedral City, California

Cathedral City

Exhibit 2.12-1

Palm Springs International Airport

Cathedral City is partially located within the mapped noise level contour boundaries of Palm Springs International Airport. Regulation of land uses in proximity to public airports are partially under the jurisdiction of the Riverside County Airport Land Use Commission (ALUC). The ALUC identifies land use policies specific to Palm Springs International Airport (PSP), including those that set a limit of 60 dB CNEL as the maximum noise exposure considered normally acceptable for new residential land uses; however, specific to Cathedral City, ALUC identifies 62 dB CNEL as the threshold for this purpose. Moreover, the ALUC airport land use plan recognizes Cathedral City residential uses within Compatibility Zone D to be "normally acceptable". Only highly noise-sensitive outdoor non-residential uses, such as amphitheaters or drive-in theaters, are prohibited in Compatibility Zone D. Please also see the PSP land use compatibility map, which is Exhibit 2.11-4 in this EIR.

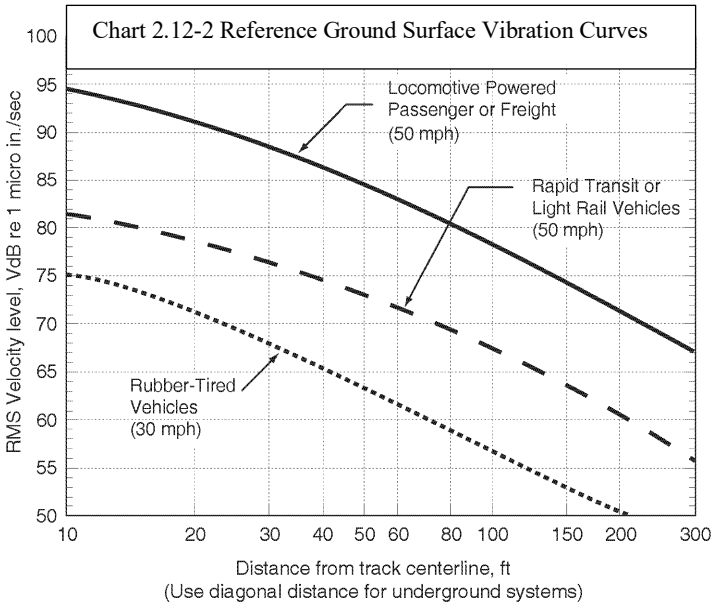
Aircraft noises impacting the community come from commercial and general aviation operations at the Palm Springs International Airport (PSP), located west of the City Limits. The most current Airport Master Plan and Part 150 Noise Compatibility Study evaluated airport operations, monitored portions of the noise environment, and projected future noise impacts from planned expansions and increased operations. The flight tracks, or patterns, that aircraft are assumed to follow in the abovementioned noise study indicate limited overflights in Cathedral City, although in fact aircraft overflights are common. Although limited, military jets also land and take off from PSP.

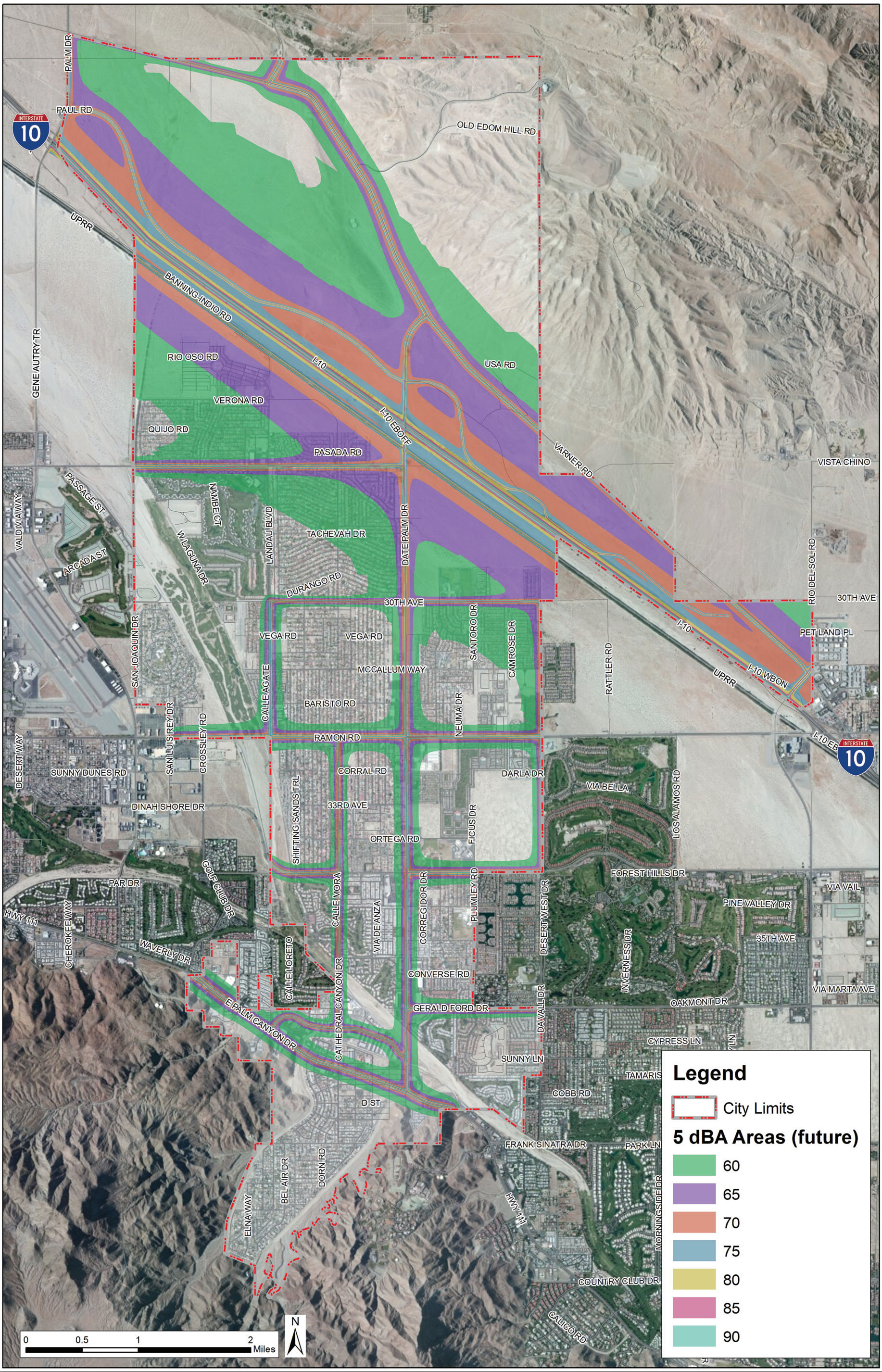
As shown on Exhibit 2.12-3, the 60 dBA CNEL boundary of Palm Springs International Airport under existing (2002) conditions partially overlaps with the City boundaries east of San Joaquin Drive and north of Ramon Road. Mapping of future (2025) noise conditions indicate that the 60 dBA CNEL noise level contour boundary will shift to partially overlap with City boundaries east of San Joaquin Drive and north of Mission Drive. As a result, noise levels due to aircraft flyover events associated with Palm Springs International Airport under future (2025) conditions are anticipated to be equal to or less than those identified under existing (2002) conditions.

Rail Vibration Analysis

The effects of groundborne vibration generated by rail traffic on the UPRR lines were analysed based on the methodology provided by the Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment*. As with sound pressure waves that comprise "noise", rolling and impact vibrations from railroad engines and cars generate a pressure wave in the ground at different speed and intensities depending on the type of rock and soils they move through. Like sound pressure waves traveling through air, ground vibrations are measured in decibels and are noted as Vdb.

The FTA General Vibration Assessment calculates the predicted vibration level based on generalized ground surface vibration curves which were developed using actual measurements of representative North American transit systems. Chart 2.12-2 from the FTA Transit Noise and Vibration Impact Assessment shows the generalized ground surface vibration curves for three types of transit sources. The generalized reference curves are used to identify the appropriate reference vibration level, before any adjustments, for the Proposed Project based on the type of train, speed, and distance to receiver locations. The FTA reference curves are provided in VdB to describe the human response to vibration levels.





05.20.19

Source: Esri, Urban Crossroads, 2019

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City of Cathedral City General Plan EIR
2040 Roadway and Railroad Noise Contours
Cathedral City, California

Cathedral City

Exhibit
2.12-2



05.20.19 Source: Esri, 2018; CalFire January, 2010

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City of Cathedral City General Plan EIR
Palm Springs International Airport Noise Contours 2025
Cathedral City, California

Cathedral City

Exhibit
2.12-3

2.12.6 Project Impacts

Project impacts associated with noise are considered significant if the project would result in:

a) ***Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;***

Exterior Noise Levels
The results of the future transportation noise analysis show that the future noise-sensitive uses may experience future unmitigated exterior noise levels greater than the *normally acceptable* exterior noise level compatibility criteria identified in the City Noise Sub-Element. Based on the results of this analysis and the proximity of future noise-sensitive land uses to transportation corridors, the on-site transportation-related noise impacts at future noise-sensitive uses are expected to potentially exceed the General Plan land use compatibility guidelines, and therefore, impacts are *potentially significant*, and will require noise mitigation.

With noise management policies and programs set forth in this sub-element and noise mitigation measures in the General Plan EIR, the on-site transportation noise levels at future developments within the City can be reduced to a range from *normally acceptable to normally unacceptable* levels. If future developments are properly conditioned, interior noise levels satisfying the 45 dBA CNEL interior noise level standard for noise-sensitive uses can be achieved.

Interior Noise Levels
With typical building construction and a windows-closed condition, a minimum 25 dBA CNEL reduction is achievable for new dwelling units and in other noise-sensitive uses. However, since the exterior noise levels from City transportation corridors have the potential to exceed 70 dBA CNEL, in some cases the minimum 25 dBA CNEL with standard building construction may still result in interior noise levels greater than 45 dBA CNEL. In some instances, detailed interior noise analysis based on site-specific architectural floor plans and elevations will be required to satisfy General Plan standards and the California Building Code for residential dwelling units. Therefore, since future interior noise levels of residential dwelling units may exceed 45 dBA CNEL, the noise level impact will be *potentially significant*, requiring interior noise mitigation. However, with the detailed interior noise analysis and the policies and programs set forth in the Noise Sub-Element, on-site transportation noise impacts on interior noise levels will be less than significant.

Long-Term Traffic Noise
Vehicular traffic, including automobiles, trucks, buses, and motorcycles, is the major noise source measured within the City. Compared to buildout of the current General Plan, buildout of the proposed General Plan will generate traffic noise level changes ranging from decreases of 0.7 to increases of 0.6 dBA CNEL on the study area roadways. These decreases and increases are based on the Year 2040 ADT volumes form the *Transportation Analysis* (see Appendix E), which vary by roadway segment based on the changes in conditions from 2040 General Plan conditions. The increases in noise levels represent a less than significant impact. Table 2.12-3 presents the 2040 General Plan Buildout roadway noise levels measured from roadway centerlines and are calculated to range from 67.9 to 77.4 dBA CNEL.

Interstate-10 / Southern Pacific Railroad Corridor
In addition to traffic along East Palm Canyon Drive/Highway 111 and the other major arterial roadways, both incorporated and sphere areas are impacted by rail and vehicular traffic associated with the Southern Pacific Railroad line and U.S. Interstate-10, respectively. The passage of trains, although an intrusive noise event, occurs only periodically and with limited duration. The substantial groundborne vibrations generated by rail traffic are further discussed below (see threshold question b, below).

More significant is the influence of Interstate-10 traffic noise, which increases at night due to persistent truck volumes combined with an atmospheric nighttime temperature inversion. This inversion tends to reduce the acoustic attenuation typical of distance over open terrain, making noises seem louder. Railroad traffic currently (2018) is an average of 40 trains per day, with an assumed speed of 70 mph, an average of 80 cars per train and a train length of 5,200 feet. By 2040, traffic on the UPRR lines could reach 70± trains per day.

Table 2.12-3
Roadway Noise Levels in 2040

Road	Segment	Adjacent Land Use[1]	dBA CNEL			
			@ Adj. Land Use	70	65	60
				CL to Contour Distance (Feet)[2]		
Palm Dr.	n/o I-10 WB Ramps	Mixed-Use (Urban)	75.2	140	302	652
Gene Autry Tr.	s/o I-10 EB Ramps	Vacant	75.1	139	299	644
Mountain View Rd.	n/o Varner Rd.	Open Space (Public)	76.3	152	327	704
Landau Bl.	n/o Ramon Rd.	Residential	74.2	97	210	452
Cathedral Cyn Dr.	n/o Dinah Shore Dr.	Residential	72.2	62	133	287
Cathedral Cyn Dr.	s/o Dinah Shore Dr.	Business Park/Residential	72.5	64	139	299
Date Palm Dr.	s/o Varner Rd.	Mixed-Use (Urban)	73.6	109	235	506
Date Palm Dr.	s/o I-10 EB Ramps	Commercial	75.5	147	316	681
Date Palm Dr.	n/o 30th Av.	Mixed-Use/Business Park	74.1	118	253	546
Date Palm Dr.	n/o Ramon Rd.	Commercial/Residential	73.8	112	241	520
Date Palm Dr.	n/o Dinah Shore Dr.	Commercial/Residential	72.9	98	212	457
Date Palm Dr.	n/o Gerald Ford Dr.	Commercial	72.1	87	188	404
Date Palm Dr.	n/o Hwy. 111	Commercial	71.6	80	173	374
Da Vall Dr.	n/o Ramon Rd.	Public/Residential	72.7	84	181	391
Da Vall Dr.	s/o Ramon Rd.	Commercial/Residential	72.4	81	174	375
Bob Hope Dr.	n/o I-10 WB Ramps	Mixed-Use (Urban)	77.4	198	426	917
Bob Hope Dr.	s/o I-10 EB Ramps	Mixed-Use (Urban)	75.7	151	326	703
Varner Rd.	e/o Palm Dr.	Mixed-Use (Urban)	67.9	RW	79	171
Varner Rd.	w/o Date Palm Dr.	Open Space (Public)	76.5	158	339	731
Varner Rd.	e/o Date Palm Dr.	Mixed-Use (Neighborhood)	74.5	101	219	471
Valley Center Bl.	e/o Palm Dr.	Mixed-Use (Urban)	72.5	82	176	379
Valley Center Bl.	e/o Date Palm Dr.	Mixed-Use (Urban)	70.3	58	125	270
Valley Center Bl.	e/o Da Vall Dr.	Open Space (Public)	68.4	RW	95	205
Vista Chino	w/o Landau Bl.	Commercial/Residential	74.2	110	237	510
Vista Chino	w/o Date Palm Dr.	Commercial/Residential	73.7	103	221	476
30th Av.	w/o Date Palm Dr.	Commercial/Residential	68.9	RW	81	174
30th Av.	e/o Date Palm Dr.	Mixed-Use (N)/Residential	70.6	48	103	223
Ramon Rd.	w/o Landau Bl.	Open Space (Water)	74.8	120	259	558
Ramon Rd.	e/o Landau Bl.	Commercial/Residential	73.5	100	215	464
Ramon Rd.	w/o Da Vall Dr.	Commercial/Residential	73.4	97	210	452
Dinah Shore Dr.	w/o Cathedral Cyn. Dr.	Business Park/Residential	72.9	81	175	377
Dinah Shore Dr.	e/o Date Palm Dr.	Business Park/Residential	74.2	99	213	460
Gerald Ford Dr.	e/o Date Palm Dr.	Open Space (P)/Residential	72.6	80	173	373
Perez Rd.	w/o Cathedral Cyn. Dr.	Industrial	69.8	RW	113	244
Perez Rd.	e/o Cathedral Cyn. Dr.	Industrial	70.2	56	120	258
Hwy. 111	w/o Canyon Plaza Dr. W.	Commercial/Public	75.4	145	311	671
Hwy. 111	w/o Cathedral Cyn. Dr.	Commercial	73.1	101	217	468
Hwy. 111	w/o Date Palm Dr.	Commercial	73.2	103	223	480
Hwy. 111	e/o Sungate Wy.	Commercial	74.2	120	258	555

1 Source: Proposed General Plan Land Use Map.
2 "RW" = Location of the respective noise contour falls within the right-of-way of the road.

General Plan Noise Policy 1, and Program 1.B and 1.C will ensure that future development institutes all practicable noise mitigation measures to reduce community noise levels to acceptable levels. Policies 2 and 3, and Programs 2.A, 2.B and 2.C further ensure that adequate noise analysis and mitigation will be implemented to ensure that proposed uses are compatible with the future noise environment. Therefore, through the application of General Plan policies and programs, as well as the City's noise ordinance, on-site traffic noise impacts can be considered less than significant. Applicable General Plan programs are also cited in Section 2.12.7 below.

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

Rail activities are projected to generate vibration levels of up to 84 VdB at 50 feet from trains traveling at 50 mph. At the typical speed of 70 mph of rail activities on rail lines passing through the City, the reference vibration level is increased by 2.9 VdB, and results in estimated vibration impacts of 86.9 VdB at 50 feet from the railroad tracks.

The analysis shows that noise-sensitive and non-noise-sensitive uses within the City could be located within 50 to 150 feet of the UPRR railroad tracks and, therefore, may experience vibration levels which would exceed the noise-sensitive 72 VdB and non-noise-sensitive 75 VdB criteria for frequent rail events identified by the FTA. Policies and programs set forth in the Noise Sub-Element, including Program 1.D, require identification and application of all practicable measures to satisfy the 72 VbD criterium. The avoidance and minimization measures set forth in Section 2.2.7 will also reduce or otherwise mitigate these potential impacts to less than significant levels.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels;

As shown on Chart 2.12-2, the 60 dBA CNEL boundary of Palm Springs International Airport (PSP) under Existing (2002) conditions partially overlaps with the City boundaries east of San Joaquin Drive and north of Ramon Road. As noted above, PSP noise is an important consideration for the City. New or expanded school sites within two nautical miles of an airport runway, including Agua Caliente Elementary School, are subject to review by Caltrans Division of Aeronautics. The primary purpose of state school regulation is to address compatibility issues associated with schools located within an airport's existing or projected future 65 dB CNEL contour (also see Community Noise Equivalent Level or CNEL above). None of the City's schools are located within an existing or future 65 CNEL noise contour generated by PSP.

Mapping of future (2025) noise conditions indicate that the 60 dBA CNEL noise level contour boundary will shift to partially overlap with City boundaries east of San Joaquin Drive and north of Mission Drive. As a result, noise levels due to aircraft flyover events associated with Palm Springs International Airport under Future (2025) conditions are anticipated to be equal to or less than those identified under Existing (2002) conditions.

Per the Palm Springs International Airport-specific policies, *dwellings may require incorporation of special noise level reduction measures into their design to ensure that the interior noise limit of 45 dB CNEL*. These features would be incorporated into new residential construction as part of the building permit process, and based on the exterior noise levels approaching and around 60 dBA CNEL, are anticipated to reduce aircraft flyover noise to below the 45 dBA CNEL interior noise level standard for residential uses with standard building construction. Additionally, avoidance, minimization and mitigation measure set forth below will ensure that new residential development satisfies the 45 dBA CNEL interior noise level standard prior to building permit approval. Therefore, while aircraft flyovers will likely be heard, they will not significantly impact noise-sensitive uses in Cathedral City from a noise standpoint.

Based on applicable PSP land use policies, "*dwellings may require incorporation of special noise level reduction measures into their design to ensure that* (compliance with) *the interior noise limit of 45 dB CNEL"*. These features would be incorporated into new residential construction as part of the building permit process, and based on the

exterior noise levels approaching and around 60 dBA CNEL, are anticipated to reduce aircraft flyover noise to below the 45 dBA CNEL interior noise level standard for residential uses with standard building construction. Given the location of the 2025 60 dBA CNEL PSP noise contour, little or no specific mitigation would be required to ensure that new residential development satisfies the 45 dBA CNEL interior noise level standard. Therefore, while noise from aircraft operations will likely be heard, they will not significantly impact noise-sensitive uses in the City.

2.12.7 Mitigation Measures

As noted above, the General Plan Noise Sub-Element and the Circulation and Mobility Elements include policies and programs that will serve to effectively avoid, minimize and otherwise mitigate potentially significant noise impacts to the community that could result from implementation of the General Plan update. The following measures are derived from the Noise Sub-Element and serve to reinforce actions to be taken by the City and applicants to ensure that the community noise environment is compatible with planned land uses.

N-1 The City shall develop and maintain an inventory of existing and future noise sources and areas of incompatibility and establish procedures, methods and standards to reduce the noise levels in these areas to acceptable levels.

N-2 Prior to development plan approvals for new noise-sensitive development projects, the City shall require the submittal of noise impact and mitigation analyses to the Planning Department identifying practicable noise mitigation measures ensuring compliance with City standards.

N-3 Prior to development plan approvals for new residential and similar noise sensitive projects, the City shall require submittal of noise impact and mitigation analyses to the Planning Department that demonstrates that the interior noise levels in all habitable rooms will satisfy the 45 dBA CNEL interior noise level standard of the General Plan and Title 24, Part 2, of the California Building Code.

N-4 Prior to development plan approvals for new noise-sensitive development projects within 150 feet of UPRR railroad tracks, the City shall require submittal of a final vibration study, which identifies all practicable mitigation measures to satisfy the 72 VdB noise-sensitive and 75 VdB non-noise-sensitive vibration level standards, as defined by the FTA for frequent rail events.

N-5 The City shall maintain, update and enforce the City's Noise Ordinance that establishes community-wide noise standards and identifies measures designed to resolve noise complaints.

N-6 The City shall require major stationary noise-generating sources throughout the City to install additional noise buffering or reduction mechanisms on development sites and/or within facilities to reduce noise generation levels to the lowest extent practicable prior to the renewal of conditional use permits or business licenses or prior to the approval and/or issuance of new conditional use permits for said facilities.

N-7 Parking lots, loading zones, and large trash bins shall be located the greatest distance practicable from adjacent residential properties, and designed is a manner that reduces associated noise impacts to levels allowable by the City's Noise Ordinance.

N-8 The City Zoning Ordinance and development review standards shall be used to limit land use patterns and project designs to those that are compatible with the existing and long-term noise environment.

N-9 The City shall develop guidelines and minimal criteria requirements for noise analyses for future development projects and in compliance with the General Plan Noise Study. Studies shall evaluate project impacts and the effectiveness of proposed mitigation measures.

N-10 The City shall periodically review and amend the General Plan Land Use Map as appropriate to assure reasonable land use/noise level compatibility.

N-11 The City shall designate primary truck routes and ensure that they are clearly marked throughout the community and properly identified on mobile apps and other web-based platforms. Except for traffic providing location-specific services and deliveries, construction and delivery trucks shall be limited to those truck routes identified in the General Plan Circulation and Mobility Element.

N-12 Development projects which result in through-traffic in residential neighborhoods shall be discouraged through the development review process, and most viable alternative routes shall be identified and adhered to.

N-13 Where applicable, prior to the issuance of building permits for new development or other construction projects, when sensitive receiver locations are within 100 feet of proposed construction activities the City shall require the submittal of construction noise impact analysis and management plans that demonstrate:

- Exterior construction noise levels at the closest sensitive receiver locations will satisfy the FTA 80 dBA L_{eq} residential and 85 dBA L_{eq} commercial 8-hour construction noise level standards and the 0.01 in/sec RMS vibration standard for sensitive uses. The site-specific study shall identify the necessary noise and/or vibration mitigation measures, if any, required to reduce exterior noise and vibration levels to below FTA noise and City vibration thresholds; and
- Measures to reduce construction noise and vibration levels, such as those provided below, shall be incorporated in the final noise management plan, if necessary:
  - Install temporary construction noise barriers at the development site boundary which break the line of sight for occupied sensitive uses for the duration of construction activities. The noise control barrier(s) must provide a solid face from top to bottom and shall:
    - Provide a minimum transmission loss of 20 dBA and be constructed with an acoustical blanket (e.g. vinyl acoustic curtains or quilted blankets) attached to the construction site perimeter fence or equivalent temporary fence posts;
    - Properly maintained with any damage promptly repaired. Gaps, holes, or weaknesses in the barrier or openings between the barrier and the ground shall be promptly repaired.
  - Install sound dampening mats or blankets to the engine compartments of heavy mobile equipment (e.g. graders, dozers, heavy trucks). The dampening materials must be capable of a 5 dBA minimum noise reduction, must be installed prior to the use of heavy mobile construction equipment, and must remain installed for the duration of the equipment use.
  - Construction activities requiring loaded trucks, large bulldozers, and jackhammers within 50 feet of nearby sensitive land uses (e.g. residential, school, etc.) shall be minimized, or alternative equipment or methods shall be used, unless the vibration levels are shown to be less than the City threshold of 0.01 in/sec RMS.

2.12.8 Significance After Mitigation

The proposed General Plan, include its Noise Sub-Element, are designed to ensure that the community has a long-term noise environment that is compatible with planned land uses. With implementation of the General Plan policies and programs, including those that are set forth in Section 2.12.7 above, there will be no significant, unmitigated impacts to the noise environment or noise sensitive land uses.

2.12.9 Cumulative Impacts

The cumulative impacts analysis for noise is based upon the project's incremental effect and whether it is cumulatively considerable, as defined in CEQA Section 15130(a)(1), and includes an evaluation of the cumulative effects of other projects in the planning area. As noted above, noise impacts are essentially local and quickly dissipate with distance but can be compounding in areas close to a particular noise source. Indicative of the limited cumulative impact from the 2040 buildout of the proposed General Plan is that it will generate traffic noise level changes ranging from decreases of 0.7 to increases of 0.6 dBA CNEL on the study area roadways. This is well below the 3 dBA CNEL impact that is noticeable. The future 60 dBA CNEL airport noise contour will actually contract and be further removed from the City by the year 2025. And rail traffic will increase modestly and remain an intermittent noise generator. Therefore, the implementation of the updated General Plan will not result in impacts to the noise environment that are cumulatively considerable.

2.13 Parks and Recreational Facilities

2.13.1 Introduction

This section identifies existing parks and recreational facilities within the City of Cathedral City and provides an analysis of potential impacts to parks and recreational facilities that could result from the implementation of the proposed General Plan Update. Mitigation measures to reduce the significance of impacts are recommended, as necessary.

2.13.2 Thresholds of Significance

Based upon Appendix G of the CEQA Guidelines, the proposed Cathedral City General Plan Update would significantly affect parks and recreational facilities if it would:

a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

2.13.3 Regulatory Framework

Federal

There are no Federal regulations applicable to the proposed General Plan Update regarding parks and recreational facilities.

State

Quimby Act
California allows a city or county to pass an ordinance that requires, as a condition of approval of a subdivision, either the dedication of land, the payment of a fee in lieu of dedication, or a combination of both for park or recreational purposes (California Government Code, Section 66477). This legislation, commonly called the "Quimby Act," establishes a maximum parkland dedication standard of 3 acres of parkland per 1,000 residents for new subdivision development unless the amount of existing neighborhood and community parkland exceeds that limit.

Regional and Local

City of Cathedral City Municipal Code
Chapter 9.106, Dedication of Land for Park and Recreational Purposes and Payment of In-Lieu Fees, of the City of Cathedral City Municipal Code contains park acreage standard. Per City's Municipal Code 9.106.040, three acres of useable parkland for each one thousand persons residing within a subdivision shall be devoted to parks.

Cathedral City Parks and Recreation Master Plan (2005)
In 2005, the City adopted the Cathedral City Parks and Recreation Master Plan to provide specific recommendations to serve as guidance to the city's parks and recreational resources management. The Plan includes a priority listing of the suggested actions and possible funding options for the recommendations. Data that was used as the basis for the recommendations are included in the Plan. They consist of population analysis, existing park and recreational resources inventory and usage, population and distance to recreational resources formulas based on nationally and locally established parks and recreation standards, and an analysis of public input.

Cathedral City General Plan

The proposed Cathedral City General Plan Parks and Recreation Element includes policies that are part of a local regulatory framework within which parklands and recreational facilities are managed.

> **Policy 1.1**: Ensure that the city has a diverse and equitably distributed system of parks, playgrounds, and open space that adequately serve current and future needs of residents. Ensure that parks, playgrounds, and open spaces are well maintained and safe for families, children, and seniors, and maximize the use of existing resources to serve current and future needs of residents.
>
> **Policy 1.2**: Promote the City's Active Transportation Plan (ATP) as an integral part of the Parks and Recreation Master Plan, supporting the expansion of pedestrian, bicycle, and public transit access to City parks, recreation areas and open space lands.
>
> **Policy 1.3**: Improve the quality of the built and natural environment in the city to support a thriving community and to enhance human and environmental health, especially for low-income and disadvantaged populations and all members of the community.
>
> **Policy 1.4:** Promote bicycle, pedestrian, and public transportation rider safety.

2.13.4 Regional Environmental Setting

Parks and recreational facilities provide residents, visitors and the community with both passive and active recreational benefits. Each city in the Coachella Valley has its own parks and recreation facilities. Generally, parks are classified based on their sizes, as discussed below.

Standard Park Classifications

Parks and open space are an integral part of the urban landscape, providing natural spaces for passive enjoyment and ballfields and courts for a variety of games and active recreation. The following summarizes the range of typical park types, sizes, and facilities.

Table 2.13-1
Standards for Park Areas

Type of Park Area	Acres/1,000 Population	Ideal Site Size/Min.	Radius of Area Served
Community Parks	5.0	50 ac/20 ac	4.0 miles
Neighborhood Parks	1.0	15+ac/15 ac	0.5 miles
Playgrounds	1.0	15+ac/15 ac	0.5 miles
Playfields	1.0	15 ac/15 ac	1.5 miles
Mini Parks	0.25	1 ac/0.5 ac	0.25 miles

Sources: "Standards for Outdoor Recreational Areas" Planning Advisory Service, American Planning Association. 1965.

While some cities manage their own recreational facilities, Desert Recreation District (DRD) provides recreational services to more than 380,000 residents in communities from Rancho Mirage east to the Salton Sea. DRD is responsible for over 30 recreational facilities that include community and fitness centers, sports fields, swimming pools, a golf course and driving range, and various parks, and open spaces.

2.13.5 Existing Conditions

City Parks

Parks and recreation services within the City of Cathedral City are owned and managed by the City. Although schools are not recreation service providers per se, they provide important exercise and recreation space and facilities. Joint-use facilities enable the public to utilize a school's existing space and equipment for passive and active recreation. School facilities are a valuable and important resource that help to meet the recreational demands of the community, and the City maintains joint use agreements with the Palm Springs Unified School District.

There are currently 11 parks within the City, ten of which are currently (2019) developed. The following table lists each park, classification, and acreage.

Table 2.13-2
City of Cathedral City Parks Inventory

Park Facility	Parkland Classification	Acreage
Dream Homes Park	Neighborhood Park	7.85
Cathedral City Dog Park	Mini Park	1.29
Century Park	Neighborhood Park	7.02
Dennis Keat Soccer Park	Community Park	19.25
Festival Lawn	Mini Park	2.04
Memorial Park	Mini Park	0.2
Ocotillo Park	Neighborhood Park	7.04
Panorama Park	Neighborhood Park	12.57
Patriot Park	Neighborhood Park	7.0
Second Street Park	Neighborhood Park	4.41
Town Square	Mini Park	2.06
Community Amphitheater	Performance and Event Venue	2.5
	Total Park Acreage	**73.23**

Cathedral City Dog Park is located in downtown Cathedral City adjacent to Second Street at 68798 Buddy Rogers Avenue. The park is a collaboration between City Council and the Cathedral City Evening Rotary Club, which provides for the park's maintenance. There are two sections within the park, one for larger dogs and one for smaller dogs. A small shade structure and benches are provided. The park has easy walking access to the downtown shopping and entertainment district.

Century Park provides a ball field, tennis court, and tot lot, as well as restrooms and wi-fi. Picnic amenities are provided in the form of shade structures with tables and BBQ facilities. It is along the eastern edge of Cathedral City at the intersection of Century Park Drive and Da Vall Drive, approximately one mile north of Ramon Road.

Dennis Keat Soccer Park is located at 69400 30th Avenue and includes a large ball field for field sports. Other park amenities include restrooms, wi-fi, shade structures, public art, and walking paths.

Festival Lawn is adjacent a part of the City Civic Center at 68600 Avenida Lalo Guerrero. It hosts three signature events: "Taste of Jalisco Festival," "Cathedral City LGBT Days," and "Cathedral City Hot Air Balloon Festival" on more than one acre of lawn space. A wide variety of other community events are also held at this venue. Parking is provided at the nearby public parking structure.

Memorial Park was constructed to honor the service of Officer David Vasquez, a Cathedral City police officer who was killed in the line of duty in 1988. It is intended as an area for personal reflection and relaxation. There is a memorial bench located among trees and floral displays. The park's location is 68600 Officer David Vasquez Road, also named to honor the fallen officer.

Ocotillo Park is located at 33300 Moreno Road and provides ballfields, basketball courts, tennis courts, a skateboard park, tot lot, BBQ grills and tables, wi-fi, and a skate park, mixed use ball field, and tot lot.

Panorama Park is located at 28905 Avenida Maravilla and is one of the city's oldest parks. It was set aside as a public park in 1960 and dedicated June 4, 1989 after undergoing a dramatic transformation adding numerous activities and sporting areas.

Patriot Park is located at 33998 Date Palm Drive. The park provides shade structures as well as public art.

Second Street Park is a small neighborhood park in Cathedral City's downtown area. Located at 68752 Buddy Rogers Avenue, Second Street Park is one of Cathedral City's oldest parks.

Town Square is in front of City Hall and the Fountain of Life at 68701 Avenida Lalo Guerrero. Amenities include benches and seating, public art pieces, and a rose garden and lush landscaping.

Amphitheater Park is located on Cathedral Canyon Drive and Avenida Lalo Guerrero. The 2.5 acre downtown amphitheater park will feature a permanent outdoor stage, restrooms, concession stand, children's play area, and walking paths.

Acquired and Undeveloped Park Land

The City has continued to acquire parkland to further expand park and recreational services. Table 2.13-3 identifies acquired parkland that will be developed as public parks in the future. The City is actively exploring partnerships with such entities as the Desert Health District and others. Such collaboration can extend the value and usefulness of City parks lands now and in the future.

Table 2.13-3
City of Cathedral Undeveloped Park Land

LOCATION	ACREAGE
Next to James Workman Middle School	17.19 acres
Next to the Salvation Army building on Landau	12.49 acres
In the Whitewater neighborhood	5.05 acres
Railroad track area north end of town	19.31 acres
Adjacent to Rancho Mirage	26.44 acres
Western part of Cove	65.93 acres
Total	**146.41 acres**

Recreational Facilities

Although private recreational facilities should not be relied upon to meet the City's recreational needs, they do make up a significant portion of the community's recreational opportunities.

Cathedral City Boys and Girls Club is privately operated by the Boys and Girls Club of the Coachella Valley and located at 32141 Whispering Palms Trail. The program primarily focuses on after-school programs, but summer and off-school day camps are also offered. Core program elements include character and leadership skills, health and lifetime skills, sports, fitness and recreation, education, and career programs, arts, and specialized programs such as a digital skills and a culinary program.

Cathedral City Senior Center is a 501c(3) non-profit organization that derives its funding principally from individuals, foundations and corporations, and special events and offers a number of activities and support services for the senior population. The facility is located on 37171 West Buddy Rogers Avenue. Programs include meals, tables games, dance, and health-related programs, among others.

Boomers Amusement Park offers an assortment of go-karts, two 18-hole miniature golf courses, bumper boats, a rock wall, and an arcade with over 100 state-of-the-art video games.

Big League Dreams Sports Park is a multi-sport facility that includes three replica historic baseball fields, a 20,000 sq. ft. indoor soccer pavilion, flag football fields, batting cages, and a Stadium Club restaurant. The facility provides a space for adult softball and indoor soccer leagues, tournaments (baseball, fastpitch and softball), and special events.

Desert Ice Castle is located on Perez Road and provides a venue for recreational and competitive ice skating. Activities include free-style and public skating sessions, figure skating and hockey schools with world-class teachers, hockey league play, skating under the lights, and other activities.

Golf Courses

Golf courses contribute significantly to the recreational opportunities of the Coachella Valley and are an integral part of the City's and region's economy. While the majority of golf courses are associated with resort residential development, they may be used by local residents and visitors. The City is home to several public/private golf courses that are available for public play. They include:

- Cimarron Golf Resort
- Date Palm Country Club
- Desert Princess Country Club Golf Resort
- Cathedral Canyon Golf Club
- Canyon Shores Golf Course

Trails, Bikeways, and Walking Paths

Bikeways, trails, and pathways are valuable recreational and community resources. A complete network of bikeways and pedestrian pathways within an urban environment helps reduce reliance on automobiles and contributes to a healthier city. Biking and pedestrian amenities help promote a sense of community by encouraging people to interact, increasing opportunities for physical fitness, and enhancing access to various land uses in the city, including shopping and employment centers. Hiking allows people to take pleasure in, and gain an appreciation for, an area’s natural resources and open spaces.

Bicycle facilities are identified as Class I, II or III. Existing and proposed bikeways are shown on Exhibit 2.16-2 and listed in Table 2.13-4.

As shown below in Table 2.13-4, the City has five Class I (bike path) and nine Class II (bike lane) bikeways, totaling 29.3 miles in length.

Table 2.13-4
City of Cathedral Existing Bikeways

Street/Path	From	To	Class	Length (mi.)
Whitewater River (south Bank)	Cathedral Canyon Drive	East of Date Palm Drive	Class I (Bike path)	0.7
Vista Chino Road	Cathedral City Western city limit	Date Palm Drive	Class II (Bike lanes)	2
30th Avenue	Landau Boulevard	Santoro Drive	Class II (Bike lanes)	1.5
Landau Boulevard	Vista Chino Road	Ramon Road	Class II (Bike lanes)	2.3
Cathedral Canyon Drive	Ramon Road	Hwy 111	Class II (Bike lanes)	2.4
Victoria Drive	Date Palm Drive	Plumley Road	Class II (Bike lanes)	0.5
Palm Drive	Desert Hot Springs City Limit (Camino Aventura)	I-10	Class II (Bike lanes)	2.1
Da Vall Drive	30th Avenue	Frank Sinatra Drive	Class I (Bike path)	4
Drive	30th Avenue	Frank Sinatra Drive	Class II (Bike lanes)	4
Gerald Ford Drive	Plumley Road	Monterey Avenue	Class II (Bike lanes)	3.5
Gerald Ford Drive	Plumley Road	Monterey Avenue	Class I (Bike path)	3.5
Plumley Road	Dinah Shore Drive	Converse Road	Class I (Bike path)	0.8
Ramon Road	Da Vall Drive	Los Alamos Drive	Class II (Bike lanes)	1
Ramon Road	Da Vall Drive	Los Alamos	Class I (Bike path)	1
			Total Current Length	**29.3**

The City developed the Cathedral City Active Transportation Plan (CC ATP) (2019) in conjunction with the proposed General Plan Circulation and Mobility Element. The CC ATP designates a future network of on- and off-street bicycle, pedestrian, and shared low speed electric vehicle (LSEV) routes that will provide effective linkages for alternatives to automobile travel. Implementation of the CC ATP would add approximately 40 miles of new bikeways and shared low speed routes, for a total of 70± miles of existing and future facilities combined. The City would more than double its current facilities by approximately 132%. Proposed facilities are listed below in Table 2.13-5.

Table 2.13-5
Cathedral City Active Transportation Plan (2019)
Proposed Bikeways and Shared Low Speed Routes

Street/Path	From	To	Class	Length (mi.)
Diamond Road	San Joaquin Road	Whitewater River	Class I (Multipurpose Path)	0.3
Dinah Shore Drive	Western city limit	Da Vall Drive	Class II (Greenback sharrows)	2
Date Palm Drive	Perez Road	Hwy 111	Class II (Buffered bike lanes)	0.3
Whitewater River and Abrams-Butler Trails	Whitewater River Confluence with Tahquitz Creek	Country Club Drive	Class I (Bike path/NEV path)	4.1
E. Palm Canyon Drive	Golf Club Drive	Cathedral Canyon Drive	Class II (Colored buffered bike lanes)	1.3
E. Palm Canyon Drive	Cathedral Canyon Drive	Date Palm Drive	Class II (Greenback sharrows)	0.5
E. Palm Canyon Drive	Date Palm Drive	Eastern city limit	Class II (Colored buffered bike lanes)	0.4
Date Palm Drive	Varner Road	Ramon Road	Class II (Buffered bike lanes/NEV lanes)	3.2
Date Palm Drive	Ramon Road	35th Ave	Class II (Buffered bike lanes/NEV lanes)	1.4
Date Palm Drive	35th Ave	Perez Road	Class II (Buffered bike lanes/NEV lanes)	0.9
Perez Road	East Palm Canyon Drive	Date Palm Drive	Class II (Bike lanes)	1.1
Cathedral Canyon Drive	Ramon Rd	Dinah Shore	\Bike lanes/NEV lanes	1
Cathedral Canyon Drive	Dinah Shore Drive	Whitewater River	Class I (Multipurpose path/NEV path)	0.8
Cathedral Canyon Drive	Canyon Shores Drive	E. Palm Can. Dr./Hwy 111	Class I (Bike path/NEV path)	0.6
30th Avenue	Santoro Drive	Da Vall Drive	Bike lanes	0.5
Landau Boulevard	Vista Chino	Mihalyo Road	Bike lanes	1.7
Varner Road	Palm Drive	Eastern city limit	Bike lanes	4.6
Long Canyon Path	Cathedral City Northern city limit	I-10 parallel path	Bike path	1.8
Mihalyo Road	Palm Drive	Da Vall Drive	Bike lanes	4.5
Ramon Road	Landau Boulevard	Da Vall Drive	Colored bike lanes	2
Gerald Ford Drive	Date Palm Drive	Plumley Road	Colored bike lanes	0.5
Da Vall Drive	Varner Road	Dinah Shore Drive	Bike lanes	3.3
McCallum Way	Landau Blvd.	Avenida Los Ninos	Bike lanes/NEV lanes	0.9
McCallum Way	Avenida Los Ninos	Drive	Bike lanes	1.1
			Total Proposed Length	**38.8**

Multi-Modal Facilities include CV Link, an approved ±49-mile non-motorized, multi-modal transportation path that passes through some of the most developed and populated portions of the Coachella Valley, providing access and connectivity between residential, commercial, recreational, institutional, and other land uses throughout the region, and providing recreational opportunities for pathway users. The first segment of CV Link was built atop the levee of the Whitewater River Stormwater Channel (WRSC) between Vista Chino and Ramon Road in Cathedral City; it became operational in February 2018. Future CV Link segments will cross the planning area along the western and southern portion of the City (along WRSC levee, Jenkins Trail, and Canyon Channel).

Hiking Trails: The Coachella Valley includes numerous regional trails which occur primarily in the San Jacinto and Santa Rosa Mountains. Trails beginning on the valley floor connect to mountain trails which can lead hikers to Idyllwild, the top of the Palm Springs Aerial Tramway, and beyond. Trails listed below are located in and around the City.

- The **Art Smith Trail** is a 16-mile long trail that extends through the Santa Rosa Mountains from Palm Canyon in Palm Springs to Palm Desert. This is a strenuous hike with a 1,200-foot elevation gain. The trail traverses the entire ridgeline of the Santa Rosa Mountains, which exhibits abundant plant and animal life. The Art Smith Trail accommodates hiking, mountain biking, and equestrian use.

- The **Murray Hill Trail** is located in the eastern portion of Palm Springs and accessed behind the 1905 Elks Lodge on Elks Trail. The 10-mile trail climbs 2,100 feet to the top of Murray Hill. It also offers links to other trails around Murray Hill, including the Clara Burgess and Wildhorse Trails, and access to the Eagle Canyon Oasis. The peak of Murray Hill offers views of Palm Springs, Cathedral City, Palm Canyon, and the San Jacinto Mountains.

- The **Araby Trail**, also called the "trail to the stars," climbs above the Bob Hope Estate and the home of the late Steve McQueen. The trail is accessed from Rimcrest/Southridge Road in Palm Springs. It is a moderate, 6-mile hike, with an 800-foot elevation gain. It connects with the Berns/Garstin/Henderson Trails and other smaller trails in the foothills.

- The **Earl Henderson Trail** and **Shannon Trail Loop** are located on the ridges and plateaus surrounding Murray Hill, east of Palm Canyon. They offer scenic views of south Palm Springs and the San Jacinto Mountains. The Earl Henderson Trail is 4 miles, with an elevation gain of 400 feet. The Shannon Trail Loop is 7 miles and gains 1,000 feet in elevation. Both trails can be accessed from Araby Drive in Palm Springs.

- **Eagle Canyon Trail** is a 2-mile hiking and equestrian trail in the Santa Rosa Mountain foothills abutting the City, which can be accessed from the Garstin, Shannon, or Araby trails west of Cathedral City. It provides spectacular views of the surrounding mountains, Palm Canyon, and the valley floor.

- On the north side of the City, trail opportunities are more limited. The **Long Canyon Trail** is accessed from a trailhead north of the city limits and Long Canyon Road. It extends into Joshua Tree National Park, and although strenuous, can serve as access to facilities and trails within the park.

- The 5.6-mile **Kim Nicol Trail** is located immediately north of the city limits and winds through the north end of the Indio Hills along faults and sensitive wildlife habitat with dramatic views in all directions. The trail is also accessible to cyclists and equestrians.

2.13.6 Project Impacts

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

Future development and redevelopment facilitated by the proposed General Plan Update would increase the City's population by approximately 105,532 new residents. These residents would be expected to create a demand for additional parks and recreational facilities. They would likely use both existing and planned parks and recreational facilities in the City and surrounding communities.

Goal 1 and its supporting policies in the Parks and Recreation Element call for the provision of parks, open space, and recreational facilities that adequately meet the community's needs, including policies that support the Quimby Act standards. These policies will lead to an increase in parkland acreage in the City to meet the demand of future residents. Compliance with the City's Development Code and planning guidelines for parks and recreational amenities will lead to the provision of private and common open space areas and recreational areas and facilities as part of individual development projects (Policy 1.3 of the Parks and Recreation Element). The recreational facilities constructed within individual developments will help meet the demands of new residents.

Policy 1.4 of the Parks and Recreation Element promotes bicycle, pedestrian, and public transportation rider safety and will increase opportunities for alternative modes of transportation. Program 1.4.1 requires the City to regularly review and update, as necessary, the City's Active Transportation Plan to ensure a comprehensive network, and Program 1.4.2 requires the City to identify and program the physical components of such a network. These facilities will provide new recreational opportunities for the General Plan buildout population, thereby reducing deterioration and other adverse impacts on existing parks and recreational facilities.

In addition, the City's Municipal Code Section 9.106.040 (park acreage standard) requires the City to dedicate land and/or pay in-lieu fees for the provision of parklands at a standard of 3 acres of parkland per 1,000 residents. Although future residents would increase the need for parks and recreational facilities, the City would meet the parkland standard such that any physical deterioration of existing facilities would be less than significant. Since future demand for parks and recreational facilities would be met, impacts would be less than significant, and no mitigation would be required.

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

The proposed General Plan Land Use Plan includes 3,760 acres of land in the City designated as Open Space which could serve as passive or active recreational space. Another 125 acres are designated as Schools and Libraries which could provide joint-use recreational opportunities. With the potential development of 33,396 new dwelling units in the planning area and an estimated increase in the population of 105,532 new residents, approximately 317 acres of new parkland would be needed to meet the 3 acres per 1,000 residents standard. With an anticipated total General Plan buildout population of 159,998 (existing and new residents combined), the City will need approximately 478 acres of parkland to meet this standard in the future.

As new development occurs, the potential environmental impacts of future parks and recreational facilities would be analyzed on a project-by-project basis, and the City would require that facilities be built in accordance with applicable building standards and in such a manner as to minimize physical effects on the environment. The development of new parks and recreational facilities would be a beneficial impact to the community that expands recreational opportunities for residents and visitors. Less than significant impacts are expected; and no mitigation is required.

2.13.7 Mitigation Measures

No mitigation measures are required. As noted above, the General Plan Parks and Recreation Element and the Open Space and Conservation Elements include policies and programs that will serve to effectively avoid, minimize and otherwise mitigate potentially significant impacts to community parks and recreation facilities and lands that could result from implementation of the General Plan update. The following measures are derived from the Parks and Recreation Element and serve to reinforce actions to be taken by the City to ensure that the community's future parks and recreation lands compatible with the communities needs and goals.

PR-1 The City shall maintain and, where appropriate, upgrade existing facilities and diversify activities programming.

PR-2 The City shall periodically conduct a needs assessment for recreation programs and services with local residents.

PR-3 The City shall maintain and where possible expand use of joint-use agreements with the Palm Springs Unified School District to use school properties for public use during non-school hours.

PR-4 The 2005 Cathedral City Parks and Recreation Master Plan shall be revised to include an updated facilities and program analysis, and five to ten-year master plan for future park and open space lands and recreation programs.

PR-5 Concurrent with the update to the Parks and Recreation Master Plan, evaluate the distribution of existing and planned park and recreation lands, and the distribution of under-served or otherwise disadvantaged neighborhoods, and ensure that the need of all sectors of the community are well served.

PR-6 Upon completion of the Parks and Recreation Master Plan update the City shall adopt population-based parkland acreage standards for all sizes and types of parks and recreation areas.

PR-7 A broad range of sources of purchase financing and operating revenue, shall be investigated and shall include Development Impact Fees, Mello-Roos special districts, public/private ventures, state and federal grant opportunities, developer fees and inter-agency joint use agreements to supplement revenues collected for parks and recreation projects.

PR-8 The City shall improve and expand pedestrian and bicycle access and connections to regional parks and open space by implementing the City ATP, including the striping and/or construction of new and improved sidewalks and multi-class bikeways.

PR-9 The City shall work diligently to implement the General Plan Circulation and Mobility Element, the ATP and other components of the City's transportation plan that address safe pedestrian, bicycle and ADA access to transit connections and facilities, especially those located between residential neighborhoods and parks and open space.

PR-10 The City shall develop and explore programs that encourage bicycle commuting or testing of innovative facility designs to accommodate bicycles, scooters and LSEVs.

PR-11 Every reasonable effort shall be made to enhance accessibility throughout the planning of park areas and facilities, in accordance with the Americans with Disabilities Act (ADA), and include increased wheelchair accessibility and other requirements needed for the elderly and disabled.

PR-12 The City shall adopt design and planning guidelines that enhance safety in parks, playgrounds, streets, and public places.

PR-13 New development, redevelopment, and public works projects shall be required to incorporate applicable General Plan guidelines when developing streets, parks, playgrounds, and other public places.

PR-14 The City shall encourage or require the provision of recreation space in private development.

PR-15 Recreation space and amenities shall be required and provided in large developments, especially in areas of high population and building density.

PR-16 The City shall regularly review and, as necessary, update the Active Transportation Plan to ensure a comprehensive and convenient bicycle and pedestrian transportation network.

PR-17 The City shall identify and program physical improvements, such as crosswalks, sidewalk improvements, signs, and traffic signalization, that would make bicycle and pedestrian travel safer to parks and recreational facilities

PR-18 Every reasonable effort shall be made to provide children with safe and appealing opportunities for walking and bicycling to school in order to decrease rush hour traffic and fossil fuel consumption, encourage exercise and healthy living habits, and reduce the risk of injury.

PR-19 The City shall collaborate with CVAG, Coachella Valley jurisdictions, and other relevant agencies to support the completion of all planned CV Link segments and expansion of community connector links, particularly those in Cathedral City and neighboring communities.

2.13.8 Significance After Mitigation

No mitigation is required. With the implementation of the policies and programs set forth in the Parks and Recreation Element and in the Circulation and Mobility Element, the proposed General Plan update will result in less than significant impacts to parks and recreational facilities.

2.13.9 Cumulative Impacts

The proposed General Plan update will facilitate additional urban development and population growth in Cathedral City. While projected growth assumes City buildout by 2040, in all likelihood slower development will occur incrementally over this period. Nonetheless, the implementation of the proposed General Plan will contribute to increased usage of existing and future parks and recreational lands and facilities. The General Plan requires the City to continue collecting Quimby Act fees and to explore additional funding mechanisms to assure that its recreational demands are met for the near and long-term. Potential environmental impacts of population growth on future parks and recreational facilities will continue to be evaluated on a project-by-project basis in accordance with CEQA and other statutory requirements, and the City will continue to require that projects minimize and mitigate the increase in demand for these lands and facilities. The General Plan requires the City to continue to work closely with other parties, including neighboring jurisdictions and regional agencies such as CVAG, to address and play an active role in regional recreational projects, such as CV Link. These and other measures will avoid, minimize or mitigate impacts of the proposed General Plan on City and regional recreational facilities. The General Plan's incremental effects on parks and recreational facilities would not be cumulatively considerable.

2.14 Population, Housing and Socio-Economic Resources

2.14.1 Introduction

This section of the EIR describes existing conditions with regard to population, housing, socio-economic resources, and environmental justice within the General Plan area and analyzes the potential impacts of the proposed General Plan on these resources. A wide range of data and information, including regional-scale planning and environmental documents, has been used in researching and analyzing the project and its potential effects.

2.14.2 Thresholds of Significance

Population and Housing

Project impacts to population and housing are analyzed using the thresholds of significance provided in Appendix G of the CEQA Guidelines. Appendix G uses the following questions to evaluate the project's potential impacts.

Would the project:

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

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

Environmental Justice

Currently, CEQA does not use the term "environmental justice" and does not provide formal procedures or thresholds for analysis of environmental justice impacts. However, CEQA does state that economic and social effects may be considered in determining whether a project's physical changes are significant (see Section 2.14.3). Therefore, environmental justice impacts are analyzed in a broad context that considers whether the physical changes associated with the project would result in indirect adverse social or economic impacts to the community.

2.14.3 Regulatory Framework

Population and Housing

Federal

No federal regulations related to population, housing, or socio-economic resources would be applicable to the proposed General Plan Update.

State

CEQA requires that environmental effects considered in an EIR include direct and secondary effects on growth-inducement, location of housing and population density (CEQA Section 15358). It should also be noted that the Housing Element is one of the General Plan elements mandated by the State of California. Sections 65580 to 65589.8 of the California Government Code contain the legislative mandate for the housing element. State law requires that a city's housing element consist of "identification and analysis of existing and projected housing needs and a statement of goals, policies, quantified objectives, financial resources, and scheduled programs for the preservation, improvement and development of housing." State law also requires that cities and counties evaluate their housing elements approximately every eight years to determine their effectiveness in achieving city and statewide housing goals and objectives.

No state regulations related to population, housing, or socio-economic resources would be applicable to the proposed General Plan Update.

Regional and Local

General Plan Housing Element

The proposed General Plan update does not directly affect the City's current Housing Element. The current Cathedral City General Plan Housing Element includes numerous policies addressing housing issues and concerns. Particular focus includes providing a sufficient variety of housing types to meet the housing needs of all residents, addressing specific needs of senior and affordable housing, and maintaining and rehabilitating residential neighborhoods. Those specifically pertaining to the General Plan include:

> **Policy 1.A** Ensure that sufficient residentially designated lands and appropriate zoning exist to meet the City's future housing needs.

General Plan Economic and Fiscal Health Element

The proposed General Plan Economic and Fiscal Health Element includes policies focused on providing a balanced, broad-based economy with a full range of economic and employment opportunities, while maintaining high standards of development and environmental protection. Those that may affect or address issues of environmental justice are also cited here and include:

> **Policy 1.1**: The General Plan land use map and designations shall facilitate a range of residential, commercial, industrial, institutional, and mixed-use development opportunities that are dispersed throughout the planning area.
>
> **Policy 1.2**: The City shall promote business development and retention, workforce training, and professional development.
>
> **Policy 1.3**: The City shall continue to encourage higher density infill development and that which uses existing utilities, infrastructure, and services.
>
> **Policy 1.4**: The City shall facilitate development of a variety of housing products that are affordable to all segments of the workforce.
>
> **Policy 1.5**: The City shall continue to cultivate a cooperative relationship with the Agua Caliente Band of Cahuilla Indians and Bureau of Indian Affairs, particularly regarding development of Indian lands within the City and sphere-of-influence.
>
> **Policy 1.6**: The City shall explore and target opportunities to attract new businesses and industries with well-paying occupations that match or can enhance the skill base and training capacity of local residents. Industries that may be particularly well-suited to the community include sustainable technologies, allied health services, hospitality industries, cannabis cultivation and distribution, arts and culture related ventures, and other economic development opportunities where Cathedral City may have a comparative advantage.
>
> **Policy 2.1**: The circulation plan shall support multi-modal transportation choices that provide logical, efficient connections between residential, employment, shopping, and other land uses to minimize commute times.
>
> **Policy 2.2**: The City shall support completion of all segments of CV Link, particularly those within its boundaries.
>
> **Policy 2.3**: The City shall strive to reduce economic disruption from natural disasters and extreme weather events, such as flooding, earthquakes, and blowsand.

Policy 2.4: All developers shall be responsible for their fair share of on-site and off-site improvements required to support their development proposals including, but not limited to, street construction and signalization, utility extensions, drainage facilities, and parks.

Policy 3.1: The City shall continue to promote special events and activities that support and celebrate its history and diverse population.

Environmental Justice

Federal

Executive Order 12898

Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (1994), requires federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the U.S. It also directed each federal agency to develop an agency-wide strategy for implementing environmental justice to address programs, policies, planning and public participations processes, enforcement, and rulemaking.

The Council on Environmental Quality (CEQ) has oversight of the federal government's compliance with EO 12898 and the National Environmental Policy Act (NEPA). It prepared a guidance document to assist federal agencies in effectively addressing environmental justice concerns in the NEPA process.

The above notwithstanding, there are no federal regulations that have a direct bearing on the City's authority to prepare and implement its General Plan.

State

California Government Code

Government Code Section 65040.12 defines environmental justice as "the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies."

California Environmental Quality Act

CEQA focuses on whether a project may have a significant effect on the physical environment. It does not use the term "environmental justice"; however, issues associated with environmental justice are reflected in well-established CEQA principles. According to Public Resources Code Section 21083(b)(3), an agency is required to find that a project may have a significant effect on the environment if, among other things, "the environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly."

Senate Bill 1000

Senate Bill (SB) 1000 added to the required elements of the general plan in Government Code Section 65302(h) an environmental justice element, or related goals, policies, and objectives integrated in other elements, that identifies disadvantaged areas within the area covered by the general plan if the city, county, or city and county has a disadvantaged community. The element must also identify objectives and policies to reduce the unique or compounded health risks in disadvantaged communities.

"Disadvantaged community" means an area identified by the California Environmental Protection Agency pursuant to Section 39711 of the Health and Safety Code (defined below) or an area that is a low-income area that is disproportionately affected by environmental pollution and other hazards that can lead to negative health effects,

exposure, or environmental degradation. "Low-income area" means an area with household incomes at or below 80 percent of the statewide median income or with household incomes at or below the threshold designated as low income by the Department of Housing and Community Development's list of state income limits adopted pursuant to Section 50093 of the Health and Safety Code.

California Health and Safety Code

Section 39711 of the Health and Safety Code requires CalEPA to identify disadvantaged communities based on geographic, socioeconomic, public health, and environmental hazard criteria. They may include, but are not limited to, either of the following: 1) areas disproportionately affected by environmental pollution and other hazards that can lead to negative health effects, exposure, or environmental degradation, 2) areas with concentrations of people that are of low income, high unemployment, low levels of home ownership, high rent burden, sensitive populations, or low levels of educational attainment.

Assembly Bill 1553

Assembly Bill (AB) 1553 requires the Office of Planning and Research (OPR) to provide guidance for local jurisdictions to address environmental justice considerations in planning for the equitable distribution of public facilities and services, industrial facilities, schools and residential dwellings, and transit-oriented development.

Regional and Local

SCAQMD Environmental Justice Advisory Group

The South Coast Air Quality Management District (SCAQMD) has adopted a number of guiding principles and initiatives to ensure environmental justice for all segments of the population. Its Environmental Justice Advisory Group advises on the impact of air quality in ethnic communities, with emphasis on reduction and prevention of air pollution. Its Children's Air Quality Agenda includes action initiatives specifically geared toward minimizing the effects of air pollution on children. The Environmental Justice Community Partnership builds and strengthens community relationships for the purpose of achieving clean air and healthy communities for everyone.

2.14.4 Regional Environmental Setting

Population

Cathedral City is part of Riverside County, which has experienced rapid growth over several decades. Between 2000 and 2010, the county population increased 41.7%, from 1.54 million to nearly 2.19 million.[1] The latest (2018) population estimate is 2.44 million.[2]

The Coachella Valley region is comprised of nine incorporated cities, including Cathedral City. In 2019, the nine cities had an estimated combined population of 388,305.[3] Approximately 24,650 additional residents live in the unincorporated communities of Thousand Palms, Bermuda Dunes, Thermal, and Mecca.[4]

Housing

Regional housing products include a mix of single- and multi-family units, and a smaller number of mobile homes. Due to a robust tourism industry and warm climate that attracts seasonal residents, the region has strong second home and vacation rental markets.

1 2000 and 2010 U.S. Census.
2 Population Estimates for Cities, Counties, and the State (Report E-1), January 1, 2018 and 2019, California Department of Finance.
3 Ibid.
4 2013-2017 American Community Survey 5-Year Estimates.

Industry

The tourism industry is the greatest contributor to the regional economy, generating millions of dollars in sales, hotel, and other taxes, and employing thousands of Coachella Valley residents. Visitors are attracted to the area's warm climate, world class golf courses, professional golf and tennis tournaments, hiking and other outdoor recreational opportunities, and music and film festivals. The eastern valley's agricultural industry has been an economic mainstay for more than a century, and the region is a top national producer of a variety of crops, most notably dates. In recent decades, the healthcare industry has also emerged as a major regional industry, with key hospital and treatment facilities located in Palm Springs, Rancho Mirage, and Indio.

Disadvantaged Communities

Most of the Coachella Valley has no "disadvantaged communities" (definition provided in Sect. 2.14.3, Senate Bill 1000), as determined by CalEPA. However, disadvantaged communities are found in the eastern Coachella Valley in Indio, Coachella, and Mecca.[5] Several census tracts in these communities are characterized by higher pollution burden and population vulnerability.

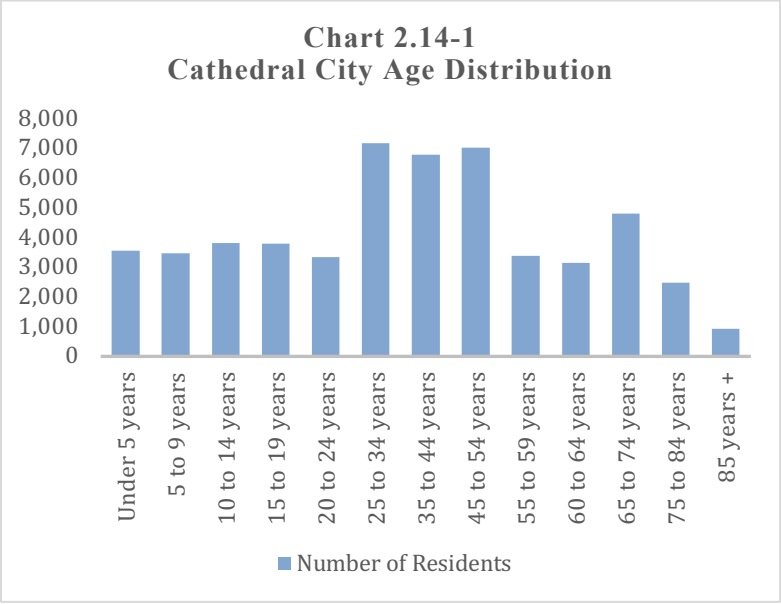
2.14.5 Existing Conditions

Population

Cathedral City is the second most populous city in the Coachella Valley. Between 2000 and 2010, its population grew 20%, from 42,647 to 51,200.[6] The 2018 population estimate is 54,466.[7] As shown in Chart 2.14-1, the largest population segment is 25 to 34 years old, closely followed by the 45-54 year old group and 35-44 year old group. The median age is 37.3 years.[8]

Population ethnicity is predominantly "white" (76.9%), as shown in Chart 2.14-2. An estimated 59.4% identify themselves as Hispanic or Latino of any race.[9]

The Southern California Association of Governments (SCAG) forecasts that the City's population will be 68,100 in 2040.[10]



5 CalEnviroscreen 3.0 database, June 2018 Update.
6 2000 and 2010 U.S. Census.
7 City/County Population and Housing Estimates (Report E-5), January 1, 2018, California Department of Finance. According to DOF, the 2019 City population estimate is 54,907.
8 2013-2017 American Community Survey 5-Year Estimates.
9 Ibid.
10 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), Appendix: Demographics & Growth Forecast, Table 11, Southern California Association of Governments, December 2015.

Housing

In 2018, there were 21,219 housing units in Cathedral City, about 81 percent of which were occupied (Tables 2.14-1 and 2.14-2). The majority (55.8%) were single-family detached units. The vacancy rate was 19.1%, and there was an average of 3.16 persons per household. South of Interstate-10, housing is within residential neighborhoods and interspersed with other urban development. Some of the oldest homes are in the Cove; many newer units are within master planned communities and golf course communities. Land north of I-10 is vacant and contains no housing.

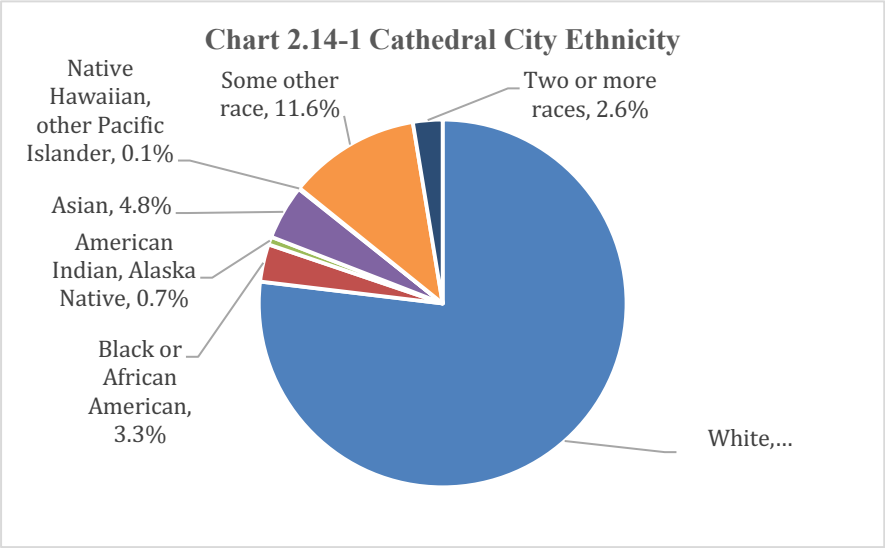


Table 2.14-1
Cathedral City Housing Characteristics

Unit Type	Number of Units	% of Total Units
Single-family detached	11,842	55.8%
Single-family attached	2,885	13.6%
Multi-family, 2-4 units	2,268	10.7%
Multi-family 5+ units	1,744	8.2%
Mobile homes	2,480	11.7%
Total:	21,219	100.0%

Source: City/County Population and Housing Estimates (Report E-5), January 1, 2018, California Department of Finance.

Table 2.14-2
Cathedral City Housing Tenure

	Number of Units	% of Total Units
Occupied Units	17,162	80.9%
Vacant Units	4,057	19.1%
Total:	21,219	100.0%
Average persons per household:	3.16	

Source: City/County Population and Housing Estimates (Report E-5), January 1, 2018, California Department of Finance.

In 2016, the median value of owner-occupied units was $232,400. [11] The median rent for occupied units paying rent was $1,160 per month.

[11] 2013-2017 American Community Survey 5-Year Estimates.

SCAG forecasts there will be 26,000 households in Cathedral City in 2040.[12] Land north of I-10 is currently vacant but planned for future development in the North City Specific Plan (2009) and North City Extended Specific Plan (2014); among the proposed land uses are single- and multi-family units in Residential Estate and Mixed-Use zones.

Employment and Income

An estimated 22,799 Cathedral City residents age 16 years and over are in the civilian labor force.[13] As shown in Table 2.14-3, the two largest employment industry sectors are "arts/entertainment, recreation, accommodation, and food service industries" (20.2%), and "educational services, health care, and social assistance" (19.5%).

Table 2.14-3
Cathedral City Employment by Industry

Industry	No. of Employed Persons	% of Total Employed Persons
Agriculture, forestry, fishing, hunting, mining	149	0.7%
Construction	1,642	7.2%
Manufacturing	612	2.7%
Wholesale Trade	286	1.3%
Retail Trade	3,393	14.9%
Transportation, warehousing, utilities	665	2.9%
Information	367	1.6%
Finance, insurance, real estate, leasing	866	3.8%
Professional, scientific, management, administrative, waste management services	3,600	15.8%
Educational services, health care, social assistance	4,442	19.5%
Arts, entertainment, recreation, accommodation, food services	4,609	20.2%
Other services, except public administration	1,604	7.0%
Public administration	564	2.4%
Total:	22,799	100.0%

Source: 2013-2017 American Community Survey 5-Year Estimates.

The annual average unemployment rate in Cathedral City in 2018 was 4.0%.[14] The median household income of Cathedral City residents is $43,384.[15]

Disadvantaged Communities

CalEnviroScreen 3.0 is a science-based database created by CalEPA and the Office of Environmental Health (OEHHA) to identify California communities that are most affected by pollution and that are especially vulnerable to the effects of pollution. It aggregates environmental, health, and socioeconomic data to generate a numerical score for each census tract in the state. Higher scores indicate higher pollution burden and population vulnerability. Census tracts with scores of 75% or higher are designated as disadvantaged communities.

According to the most recent CalEnviroScreen 3.0 database update (June 2018), there are no disadvantaged communities in Cathedral City. Most census tract scores range from 15% to 40%. The two census tracts with the highest scores (45-50%) are located: 1) in the Cove, and 2) north of Ramon Road and west of the Whitewater River.

12 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), Appendix: Demographics & Growth Forecast, Table 11, Southern California Association of Governments, December 2015.
13 2013-2017 American Community Survey 5-Year Estimates.
14 "Monthly Labor Force Data for Cities and Census Designated Places (CDP), Annual Average 2018-Revised, Data Not Seasonally Adjusted," California Employment Development Department.
15 2013-2017 American Community Survey 5-Year Estimates.

2.14.6 Project Impacts

Population and Housing

Would the Project:

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

The proposed General Plan update is a policy document that would not, in and of itself, result in any population growth. However, implementation of its land use plan and policies would facilitate new housing and businesses, and the extension of roads and other infrastructure, including utilities, that would directly and indirectly result in substantial, but planned, population growth over the life of the General Plan (20 years).

Future growth would occur largely on vacant land north of I-10 within the boundaries of the North City Specific Plan (2007) and North City Extended Specific Plan (2009). The proposed General Plan update land use plan is consistent with these adopted Specific Plans. Resulting growth would be planned and consistent with the City's vision for this part of the City. Therefore, impacts associated with population growth would be less than significant. No mitigation is required.

Impacts to Housing

There are currently (2018) 21,219 dwelling units in Cathedral City, the majority (11,842 units or 55.8%) of which are in the Low Density Residential land use category. Buildout of the General Plan land use plan is projected to add 33,396 new units. Therefore, at General Plan buildout, there could be a total of approximately 54,615 dwelling units. This represents a 157% increase over the City's existing housing supply. At buildout, the two land use categories having the most dwelling units would be Mixed Use-Urban (18,194 units or 33.3%) and Low Density Residential (14,415 units or 26.4%).

The combined Mixed-Use-Urban, Mixed-Use-Neighborhood, High Density Residential and Medium High Density Residential would result in 24,323 multi-family units, or 4.5 percent of the City's total housing stock. It should also be noted that these 24,323 units would be developed at densities ranging from 11 to 45 units per acre. This mix of densities demonstrates that the City can provide a substantial number of future residential units that are market-rate affordable.

Table 2.14-4
Projected Housing Units
at General Plan Buildout

Land Use Category	Existing Units	Potential New Units	Buildout Units
Hillside Reserve (1du/20ac)	-	23	23
Estate Residential (0-2du/ac)	1	630	641
Low Density Residential (2-4.5du/ac)	11,841	2,574	14,415
Resort Residential (3-6.5du/ac)	5,153	4,596	9,749
Medium Density Residential (4.5-10du/ac)	4,224	1,250	5,474
Medium-High Density Resid. (11-20du/ac)	-	323	323
High Density Residential (20-24du/ac)	-	692	692
Mixed Use – Neighborhood (25 du/ac)	-	5,114	5,114
Mixed Use – Urban (45 du/ac)	-	18,194	18,194
Total:	**21,219**	**33,396**	**54,615**

Source: Table 1-2, Proposed Land Use Table, of this EIR

A large portion of these new residential units would be built north of I-10, which is currently vacant, on land designated for Mixed Use-Urban, Mixed Use-Neighborhood, and Estate Residential. As noted above, the location and densities of these land use categories north of I-10 are not newly proposed by this General Plan Update; rather, they were originally planned and approved as part of the North City Specific Plan and North City Extended Specific Plan. Future development in this part of the City would be subject to the development standards and provisions of the Specific Plans.

Impacts to Population

There are currently 54,466 residents in Cathedral City. Buildout of the General Plan Update land use plan is projected to result in an additional 105,532 residents. This estimate is based on an additional 33,396 dwelling units that could be built in the planning area over the life of the General Plan, and the City's average of 3.16 persons per household. It assumes full occupancy of seasonal, recreational, and occasional occupancy dwelling units in addition to permanent residency units. Based on these assumptions, there would be a total of 159,998 residents at General Plan buildout.

Table 2.14-5
Projected Population
at General Plan Buildout

Existing Population[1]:	54,466
Projected Additional Population: 33,396 potential new dwelling units x 3.16 persons/household[1]	105,532
Total Population at Buildout:	**159,998**

[1] City/County Population and Housing Estimates (Report E-5), January 1, 2018, California Department of Finance. Future population assumes 100% occupancy of all new units.

This represents a 194% increase over the City's existing population. Most new residents would live north of I-10, where new residential units would be developed consistent with the North City Specific Plan and North City Extended Specific Plan. Nonetheless, a substantial potential is provided for near to mid-term residential development on currently vacant lands south of I-10, where roadways, schools, parks and urban infrastructure already exist.

This level of growth can be considered substantial. However, considering recent regional economic and housing market trends, population growth will likely occur at a substantially slower pace than described above. For General Plan buildout to occur by 2040, all 33,396 new dwelling units and 105,532 new residents would have to locate in Cathedral City within the next 20 years. That equates to population growth of 5,277 new residents per year, or an annual growth rate of about 9.7%. Historic annual growth rates in the Coachella Valley were about 3.4% from 1990 to 2007, and about 1.3% from 2007 (Great Recession) to 2016.[16] Future growth in Cathedral City is likely to be comparable with the latest regional trends and, therefore, population growth would not likely reach projected buildout levels until well after 2040.

Nonetheless, the proposed General Plan would facilitate new development that would result in continued residential development south of I-10, and the extension of new roads and infrastructure north of I-10, and would substantially increase the City's population. The General Plan is, by definition, a long-range plan for future growth. The resulting population growth is *planned* and would occur over many years; therefore, impacts would be less than significant.

16 "Cathedral City Economic Report, 2016," Lowe Institute of Political Economy and Inland Empire Center for Economics and Public Policy, Claremont McKenna College, November 1, 2016.

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

The proposed General Plan update does not increase residential densities on currently developed lands but limits it effect to growth essentially on currently vacant lands. Therefore, the Proposed Project would not displace any existing people or housing, and no replacement housing would be needed. Most new development would occur on vacant land north of I-10. No impact would occur.

Environmental Justice

The General Plan area does not contain any disadvantaged communities, as designated by CalEPA, and therefore, its adoption and implementation will have no impact on disadvantaged communities.

The proposed General Plan update will result in positive impacts associated with environmental justice. Concepts relating to the equitable provision of resources and protection from environmental hazards, that are the hallmarks of environmental justice, permeate much of the General Plan. The proposed land use plan locates industrial and other potentially hazardous land uses away from residential land uses, to the greatest extent feasible. The Proposed Project also moves residential lands away from the UPRR/I-10 corridor and buffers residential lands with industrial and other less sensitive land uses.

The proposed circulation plan strives for a complete streets network and multi-modal transportation links, including bike paths and transit stops, that reduce mobility barriers and benefit all segments of the population. The Environmental Justice and Healthy and Sustainable Community Elements are new to the General Plan and, consistent with recent OPR General Plan Guidelines, provide the City with opportunities to directly address potential social inequities. They identify vulnerable populations and include a range of policies and programs aimed at enhancing community equity, health, safety, and participation.

2.14.7 Mitigation Measures

As demonstrated in the above analysis, implementation of the proposed General Plan will not induce substantial unplanned population growth nor will it displace substantial numbers of existing people or housing, or necessitate the construction of replacement housing elsewhere. Therefore, no mitigation measures are required.

2.14.8 Significance After Mitigation

Impacts would be less than significant, and no mitigation is necessary.

2.14.9 Cumulative Impacts

Although much of the analysis of the population, housing and other effects of the proposed General Plan are based on buildout of currently vacant lands, it is very unlikely that buildout will actually occur within the Plan's 20-year horizon. Historically strong rates of development have been approximately one-third those required to see City buildout by 2040. Therefore, implementation of the proposed General Plan update would not result in either cumulatively considerable housing or population growth in Cathedral City over the coming 20-year time frame.

2.15 Public Utilities and Service Systems

2.15.1 Introduction

This section describes the existing public utilities and service systems for the City of Cathedral City and evaluates the potential environmental consequences of future development that could occur by adopting and implementing the proposed Cathedral City General Plan Update. Public services include fire protection, police protection, school services, and library services. Utility systems include water, wastewater, stormwater drainage, and solid waste facilities, as well as electricity, natural gas, and telecommunications services within the General Plan area and the surrounding region. The regulatory environment and thresholds of significance are described. The project's potential impacts are discussed, and mitigation measures are set forth where needed. The analysis concludes with a discussion of residual and cumulative impacts.

2.15.2 Thresholds of Significance

The thresholds addressed in this section include those set forth in both Sections XV (Public Services) and Section XIX (Utilities and Service Systems). They do not address stormwater drainage, which is addressed in Section 2.10 (Hydrology and Water Quality) or parks, which are addressed in Section 2.13 (Parks and Recreational Resources).

Public Services

Based upon Appendix G of the CEQA Guidelines, the proposed Cathedral City General Plan Update would significantly affect public services if it would:

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

- Fire Protection
- Police Protection
- Schools
- Parks (see Section 2.13)
- Other Public Facilities

Utilities and Service Systems

Based upon Appendix G of the CEQA Guidelines, the proposed Cathedral City General Plan Update would significantly affect utilities service systems if it would:

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. (see Section 2.10 addressing stormwater)

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

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

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

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

2.15.3 Regulatory Framework

Federal

There are no federal regulations applicable to the proposed General Plan update regarding public services and utilities systems.

State

Senate Bill 50

Senate Bill 50 (SB 50 or the "Leroy Greene School Facilities Act"), enacted in 1998, represents the most significant school facility finance and developer fee reform legislation for school facilities construction and modernization since the adoption of the 1986 School Facilities Act. Section 65995 of the California Government Code establishes the statutory criteria for assessing construction fees. The legislation recognizes the need for fees to be adjusted periodically to keep pace with inflation; therefore, the State of California Department of General Services State Allocation Board increases the maximum fees according to the adjustment for inflation in the statewide cost index for Class B construction. The payment of school mitigation impact fees authorized by SB 50 is deemed to provide full and complete mitigation of project impacts on school facilities pursuant to Section 65995 of the California Government Code. SB 50 provides that a State or local agency may not deny or refuse to approve the planning, use, or development of real property on the basis of a developer's refusal to provide mitigation in amounts in excess of that established by SB 50.

California Occupational Safety and Health Administration

In accordance with the California Code of Regulations, Title 8, Sections 1270, Fire Prevention, and 6773, Fire Protection and Fire Fighting Equipment, the California Occupational Safety and Health Administration (Cal/OSHA) has established minimum standards for fire suppression and emergency medical services. The standards include, but are not limited to, guidelines on the handling of highly combustible materials, fire hose sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance, and use of all firefighting and emergency medical equipment.

California Integrated Waste Management Act of 1989

The California Integrated Waste Management Act of 1989 (Public Resources Code, Division 30), enacted through Assembly Bill (AB) 939 and modified by subsequent legislation, required all California cities and counties to implement programs to reduce, recycle, and compost at least 50 percent of wastes by the year 2000 (Public Resources Code Section 41780). CalRecycle determines compliance with this mandate to divert generated waste, which includes both disposed and diverted waste.

In 2007, Senate Bill (SB) 1016 amended AB 939 to establish a per capita disposal measurement system that is based on a jurisdiction's reported total disposal of solid waste divided by its population. California's Integrated Waste Management Board sets a target per capita disposal rate for each jurisdiction. Each jurisdiction must submit an annual report to California's Integrated Waste Management Board with an update of its progress in implementing diversion programs and its current per capita disposal rate.

California Assembly Bill 341

In October 2011, Assembly Bill 341 was signed into law, setting a 75% recycling goal for California by the Year 2020. The legislation mandates that all California businesses and public entities generating four (4) cubic yards or more of waste per week and multifamily residential dwellings with five (5) units or more to recycle. The regulation was approved by the Office of Administrative Law on May 7, 2012 and became effective immediately. On June 27, 2012, the Governor signed Senate Bill 1018 which included an amendment that requires a business that generates 4 cubic yards or more of commercial solid waste per week to arrange for recycling services.[1]

Individual jurisdictions determined compliance measures and due dates. Per Public Resources Code Section 41821 (annual reporting), each jurisdiction is required to electronically report the progress achieved which is reviewed by CalRecycle. All businesses and multifamily residential dwellings are required to recycle waste to comply with AB 341 in the City of Cathedral City. The City is also required to identify and notify businesses that are not in compliance and inform them of the requirement to recycle and how they can recycle.[2]

CALGreen Code

CALGreen Code Section 4.408, Construction Waste Reduction, Disposal and Recycling mandates that, in the absence of a more stringent local ordinance, a minimum of 50 percent of non-hazardous construction and demolition debris must be recycled or salvaged. The Code also requires the applicant to have a waste management plan for on-site sorting of construction debris.

Senate Bills 610 and 221

On January 1, 2002, Senate Bill (SB) 610 took effect. SB 610, which was codified in the California Water Code, Section 10910 et seq., requires preparation of a water supply assessment for projects within cities and counties that propose to construct 500 or more residential units or the equivalent. SB 610 provides that, when environmental review of certain development projects is required, the water agencies that are to serve the project must complete the water supply assessment to evaluate water supplies that are or will be available during a normal year, single dry year, and multiple-dry years during a 20-year projection to meet existing and planned future demands, including the demand associated with the individual projects.

SB 221, enacted in 2001 and codified in Government Code Section 66473.7, requires a county, city, or local agency to include a condition to any tentative subdivision map that a sufficient water supply will be available to serve the subdivision. The term "sufficient water supply" is defined as the total water supplies available during a normal year, single-dry year, and multiple dry years within a 20-year projection that would meet the proposed subdivision's projected water demand, in addition to existing and planned future water uses, including agricultural and industrial uses, within the specified service area. SB 221 further requires any verification of "projected" water supplies to be based on entitlement contracts, capital outlay programs, and regulatory permits and approvals.

Regional and Local

Riverside County Integrated Waste Management Plan

The Countywide Integrated Waste Management Plan (CIWMP) was prepared in accordance with the California Integrated Waste Management Act of 1989. To attain the reduction goals, AB 939 established a planning hierarchy utilizing new integrated solid waste management practices.[3] Riverside County revises the CIWMP every five years and publishes a Five-Year Review Report to assure that the County's waste management practices remain consistent with the hierarchy of waste management practices.

1 CalRecycle Website, https://www.calrecycle.ca.gov/recycle/commercial, Accessed April 2019.
2 City's Website, http://www.cathedralcity.gov/services/recycling-refuse-energy-programs/backyard-composting-program-schedule/business-commercial-recycling-requirements, Accessed April 2019.
3 Riverside County Department of Waste Resources.

Cathedral City Municipal Code

Chapter 8.12, Fire Regulations, of the Cathedral City Municipal Code contains fire regulations adopted to safeguard life and property from the hazards of fire and explosion arising from the storage, handling, and use of hazardous substances, materials, and devices, and from conditions hazardous to life or property in the use or occupancy of buildings or structures. The code requires permits for certain hazardous activities and operations and inspections to determine whether such activities or operations can be conducted in a manner which complies with the fire regulation standards and in a manner which will not cause a fire or contribute to its spread. The Cathedral City Municipal Code includes the California Fire Code, as promulgated in Part 9, Title 24 of the California Code of Regulations, and portions of the International Fire Code, 2015 Edition.

Cathedral City General Plan

The City's proposed General Plan addresses the issue of public utilities and service systems in the Public Services and Facilities Element, which consists of four sub0elements. These include the Fire and Police Sub-Element, the Schools and Libraries Sub-Element, Public Facilities Sub-Element, and the Water, Sewer and Utilities Sub-Element. These elements also contain policies and programs related to these services and facilities are applicable to existing and future developments in the planning area.

Fire and Police Sub-Element

Policy 1.1: The City shall periodically review, assess and update the Police and Fire Department Strategic Plans and the Fire Department Local Hazard Mitigation Plan, and their goals and policies.

Policy 1.2: All new development proposals shall be thoroughly reviewed for potential impacts and the ability to effectively provide public safety and fire and police protection.

Policy 1.3: The City shall provide for the adequate and timely expansion of fire and police protection capabilities, services and facilities to meet future development demands.

Policy 1.4: The City shall support the highest level of code enforcement practicable in order to protect property and lives, property values, and quality of life.

Policy 1.5: Review and comment on proposals for the use, manufacture, storage and transportation of potentially hazardous materials and monitor such sites on a regular basis to ensure that potential hazards to the community are minimized.

Policy 1.6: Continue to support community-based policing efforts, including the Neighborhood Watch and Citizens on Patrol programs and disaster readiness programs, including Community Emergency Response Team (CERT) training and resident cell phone enrollment for emergency notifications.

Schools and Libraries Sub-Element

Policy 3.1: Assist, cooperate and coordinate with the Palm Springs Unified School District, the community college district and state agencies in identifying, acquiring and developing school sites needed to meet future growth demands. Encourage the selection of potential school sites that are centrally located in areas of existing or future residential development.

Policy 3.3: The City shall consult and coordinate with the Palm Springs Unified School District to maximize shared/joint use of school open space and recreation facilities.

Policy 3.4: The City shall coordinate with the Riverside County Library System to assure that adequate library facilities, services and resources are provided to meet the educational and literary needs of the community.

Policy 3.5: The City shall cooperate in securing school impact fees from developers, in accordance with state law.

Policy 3.6: Ensure provision of safe pedestrian access for students of new and existing school sites throughout the city.

Public Facilities Sub-Element

Policy 4.1: The Land Use Element shall assure the long-term availability of sites for future public and quasi-public buildings, infrastructure, and other facilities.

Policy 4.2: The City shall routinely evaluate and update, as appropriate, its Capital Improvement Program.

Policy 4.3: Coordinate with public utility providers and other public/quasi-public agencies to assure that utility buildings and facilities are compatible with the surrounding landscape.

Policy 4.4: To the greatest extent practicable, the City shall encourage the undergrounding of electrical power lines.

Policy 4.5: Critical structures and facilities (including civic administrative center, hospitals, fire stations, police stations, schools and major communications facilities) shall be restricted from geologically and hydrologically hazardous areas, to the greatest extent practical.

Policy 4.6: Public facilities shall be responsive to the needs of the community and maintained in a manner that enhances the comfort and safety of community members, City employees, and other occupants.

Water, Sewer and Utilities Sub-Element

Policy 5.1: The City shall encourage CVWD and DWA to implement short- and long-term plans for a fully integrated, city-wide sewer system.

Policy 5.2: Monitor resource management activities of the CVWD, DWA, and California Regional Water Quality Control Board (CRWQCB) to preserve and protect water resources and quality.

Policy 5.3: The City shall encourage and, to the extent practicable, facilitate the diversification of the energy resources through the development of renewable sources of electricity, natural gas and hydrogen fuels.

Policy 5.4: To enhance their long-term viability and to protect against service disruptions due to earthquakes, floods and extreme weather, utility lines shall be undergrounded wherever practicable. Those most subject to disruption and located along major streets and image corridors shall have primary consideration for undergrounding.

Policy 5.5: The City shall confer and coordinate with the local solid waste hauler/manager and identify and evaluate the potential to expand waste recycling, encourage use of packaging materials that are most recyclable, and eliminate non-recyclable packaging from the waste stream.

2.15.4 Regional Environmental Setting

Public Services

Fire Protection Services

The threat of fire poses hazards to life and property. Given the region's generally sparsely vegetated terrain, developed areas are the primary source of fire service calls in the Coachella Valley. The location of fire stations, availability of fire water flows, adequacy of fire equipment and personnel, and emergency preparedness planning are crucial factors in preventing and suppressing urban fires.

The Riverside County Fire Department is the largest provider of fire protection and suppression services in the Coachella Valley. Not only does it serve unincorporated County lands, but it is also contracted to protect the following cities: Desert Hot Springs, Rancho Mirage, Palm Desert, Indian Wells, La Quinta, Indio, and Coachella. The Riverside County Fire Department operates approximately 22 fire stations in the Coachella Valley and provides fire suppression and prevention, emergency medical response, hazardous materials response, fire investigations, and other related services. The cities of Cathedral City and Palm Springs operate their own municipal fire departments. The fire departments maintain mutual aid agreements with neighboring communities.

Police Services

Police protection is a critical community service that not only influences the crime rate, but also indirectly affects the community's growth and prosperity. Most communities strive to maintain a high ratio of officers to population, as this allows for more effective crime identification and prevention. The distribution of land uses, anticipated development patterns, traffic circulation patterns, and the integration of "defensible" spaces in building designs also impact the crime rate and the effectiveness of police personnel.

The cities of Desert Hot Springs, Palm Springs, Cathedral City, and Indio maintain their own municipal police departments. The following Coachella Valley cities contract with the Riverside County Sheriff's Department for police protection services: Rancho Mirage, Palm Desert, Indian Wells, La Quinta, and Coachella. The Sheriff's Department also provides protection to unincorporated County lands throughout the Valley.

Schools

Public education services and facilities in the Coachella Valley are provided by several school districts, including the following: Palm Springs Unified School District (PSUSD), Desert Sands Unified School District (DSUSD), and Coachella Valley Unified School District (CVUSD). PSUSD's coverage area includes Desert Hot Springs, Palm Springs, Cathedral City, Thousand Palms, and much of Rancho Mirage. It operates a total of 28 schools, including 16 elementary, 4 middle, 4 high, and 4 alternative schools.

Libraries

The principal provider of library services in the Coachella Valley is the Riverside County Library System, a network of public libraries serving Riverside County residents. Coachella Valley branches of the County Library System include the following locations: Desert Hot Springs, Cathedral City, Thousand Palms, Palm Desert, La Quinta, Indio, Coachella, and Mecca. These facilities are operated by the County of Riverside, under contract with the cities where they are located. Two Coachella Valley cities (Palm Springs and Rancho Mirage) operate their own municipal libraries, independent of the County Library System. Other regional libraries include the College of the Desert (COD) Library, a joint-agency facility funded by the College of the Desert, City of Palm Desert, and Riverside County. The COD Library is located on Fred Waring Drive in Palm Desert and is available to COD students and the general public.

Utilities and Service Systems

Domestic Water
Groundwater is the principal source of the Coachella Valley's municipal water supply, although limited domestic supplies also come from surface sources. Domestic water is provided by a number of agencies which extract groundwater from deep wells and convey it to homes and businesses through extensive systems of reservoirs and distribution pipelines. However, the Coachella Valley Water District (CVWD) and Desert Water Agency (DWA) are the principal domestic water providers and groundwater managers in the Coachella Valley and both serve Cathedral City.

Wastewater Collection and Treatment
Sewage collection and treatment services are provided throughout the Coachella Valley by several agencies. CVWD serves the cities of Rancho Mirage, Palm Desert, Indian Wells, La Quinta, and a portion of Cathedral City, as well as some unincorporated communities, including Thousand Palms, Thermal, and North Shore. The City of Indio and surrounding lands are served by the Valley Sanitary District. DWA provides tertiary wastewater treatment for the City of Palm Springs, but provides only collection services to the southerly portion of Cathedral City, conveying effluent from Cathedral City to the Cook Street treatment facility in Palm Desert. Two cities in the Coachella Valley operate their own municipal wastewater treatment plants: Palm Springs and Coachella.

Electric Service
Electric services in the Coachella Valley are provided by Southern California Edison (SCE) and Imperial Irrigation District (IID). SCE is the electric power provider for the western Coachella Valley, including Cathedral City.

Natural Gas
The Gas Company (Semper Energy) provides natural gas services and facilities to the Coachella Valley.

Telecommunications
Frontier Communications (formerly Verizon) and Spectrum (formerly Time-Warner) provide a wide range of residential and business telecommunications services to the Coachella Valley, including telephone, cable, phone over internet protocol (FOIP), and other telecommunication services.

Cable Television
The Coachella Valley's largest cable television service provider is Spectrum. Frontier also provides similar services through its FIOS fiber technology. Satellite service is also available through DISH and Direct TV.

Solid Waste Management
The largest provider of solid waste management services in the Coachella Valley is Burrtec Waste Industries, which serves the following communities: Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, La Quinta, Indio, Coachella, Thousand Palms, Bermuda Dunes, Sky Valley, Thermal, Oasis, Mecca, and North Shore. Burrtec operates the County Transfer Stations at the Edom Hill and Coachella Landfill sites. The cities of Palm Springs and Desert Hot Springs contract with Palm Springs/Desert Valley Disposal for solid waste management and disposal services. A variety of residential and commercial services are available from each of these companies, including special pick-up services for large waste generators, such as restaurants, hotels, and resorts.

Most cities in the Valley have implemented a comprehensive recycling program, which has proven beneficial in the preservation of landfill space, and energy and other finite resources used in materials production. Most green waste collected in the Valley is recycled at facilities in Thermal and Thousand Palms, while other recyclables are transported to Los Angeles processors. Several privately operated recycling facilities are located within the Coachella Valley. In the near to mid-term, solid waste generated in the Coachella Valley is transported to the Badlands Landfill near City of Moreno Valley, the Lamb Canyon Landfill between the cities of Beaumont and San Jacinto, and the El Sobrante Landfill south of the City of Corona.

2.15.5 Existing Conditions

Public Services

Fire Protection Services

The Cathedral City Fire Department provides fire protection services to the General Plan planning area (City Limits). Its staff currently includes 43 sworn fire personnel (42 firefighters and 1 Fire Chief), including 14 firefighters on-duty 24/7/365, 2 administrative personnel, and 1 full-time fire inspector. Current firefighter staffing levels represent a ratio of about 0.77 firefighters to every 1,000 residents.[4]

The Cathedral City Fire Department currently has three fire stations:

Fire Station Number	Location
Station No. 412	32100 Desert Vista Road
Station No. 413	27610 Landau Boulevard
Station No. 411	36913 Date Palm Drive

Emergency response vehicles include two fire engines, one aerial ladder truck, two ambulances, and one command vehicle. Reserve apparatus includes one engine, one Telesquirt truck, two ambulances, one command vehicle, one Rehab unit, and one engine under agreement with the California Office of Emergency Services (OES).[5] The Department maintains an automatic mutual aid agreement with the City of Palm Springs and a county-wide agreement with the Riverside County Fire Department for additional fire support, as necessary. A new station will be built at the corner of Date Palm Drive and Buddy Rogers Avenue to replace the aging Station No. 411; it is expected to be completed in 2020.

The Fire Department is a "Class 3" agency, as rated by the Insurance Services Organization (ISO) Public Protection, where Class 1 is the highest rating and Class 10 is the lowest.[6] It responded to more than 5,800 emergency calls in 2018; emergency medical services and resident assistance accounted for approximately 75% of its emergency response activity.[7] The Department's average response time is 6 minutes 21 seconds within the City, and less than 6 minutes 56% of the time.[8]

In addition to fighting fires, the Fire Department provides advanced life support and emergency ambulance services. It is licensed by the California Emergency Medical Services Authority to provide pre-hospital emergency medical services and is authorized by the Riverside County Emergency Medical Services Agency to operate 9-1-1 ambulance services in the City. The Fire Department plays a key role in disaster preparedness and is responsible for coordinating, in conjunction with other City departments, the City's response to a wide range of hazards and threats.

The Fire Department's Strategic Plan 2019-2023 guides the development of the fire department for the next four years. Among its objectives are improving the ISO Class 3 rating to a Class 2 rating by 2020, adding ambulance and personnel at Fire Station 412, and adding a pumper and additional firefighters at Station 412.

Police Protection Services

The Cathedral City Police Department provides police protection to the planning area. The Cathedral City Police Station is located at 68-700 Avenida Lalo Guerrero.

4 Fire Chief Paul Wilson, July 2018; U.S. Census Bureau - Cathedral City, CA. July 2017 estimated population 54,596.
5 Cathedral City Fire Department 2019-2023 Strategic Plan.
6 Ibid.
7 Ibid.
8 Ibid.

Departments and specialized units include the following:

- Detective Bureau
- Auto Theft Task Force
- Coachella Valley Narcotics Task Force
- Real Estate Fraud Task Force Traffic Division
- Homeless Liaison Team
- Gang Investigations Unit
- K-9 Unit
- Dispatch
- SWAT (Special Weapons and Tactics)
- School Resource Officer Program
- Post Release Community Supervision Accountability Team

The Police Department's Strategic Plan 2016-2020 recommends a minimum officer-to-resident population ratio of no less than one officer per thousand residents.[9] With 52 sworn officers, the City currently provides approximately 0.90 officers for every 1,000 residents. According to the Strategic Plan, the public considers an emergency police response time within 6 minutes or less to be acceptable. The City's Police Department currently has an emergency (Priority 1) response time or 7 minutes or less.

Emergency and non-emergency calls for Police and Fire are received by the city's Emergency Communications Center. The Cathedral City Dispatch Center is staffed 24 hours a day,7 days a week, to answer emergency and non-emergency phone calls.

Schools

Public Education

The Palm Springs Unified School District (PSUSD) provides kindergarten through 12th grade public educational services and facilities to the City of Cathedral City and other communities in the western Coachella Valley. In 2019, PSUSD schools enrolled approximately 21,680 students in 28 schools and an independent study program. PSUSD operates nine schools within Cathedral City, including five elementary, two middle, one high, and one continuation high school. Capacity and enrollment data for each school, as provided by PSUSD[10], is as follows:

- *Agua Caliente Elementary School* is located at 30800 San Luis Rey and includes kindergarten through fifth grades. A new campus opened in February 2019. The school's maximum capacity is 877 students, and in January 2019 it enrolled 553 students.

- *Cathedral City Elementary School* is located at 69300 Converse Road. It includes kindergarten through fifth grades and operates year-round. The school can accommodate a maximum of 1,104 students and enrolled approximately 678 in 2019.

- *Landau Elementary School* is located at 30310 Landau Boulevard. The school includes kindergarten through fifth grades. Its maximum capacity is 1,024 students, and enrollment as of January 2019 was 740 students.

Rio Vista Elementary School is located at 67770 Verona Road. The school includes kindergarten through fifth grades. Its maximum capacity is 956 students; enrollment as of January 2019 was 712 students.

9 Cathedral City Police Department Strategic Plan 2016-2020.
10 Palm Springs Unified School District Representative - Ruth Burgett (Facilities Accountant), April 2019.

- *Sunny Sands Elementary School* is located at 69310 McCallum Way. The school operates year-round and has a maximum capacity of 1,119 students. In 2019, the student body included 741 students.

- *Nellie N. Coffman Middle School* includes sixth through eighth grades and is located at 34603 Plumley Road. The school can accommodate a total of 1,308 students and enrolled 1,106 in January 2019.

- *James Workman Middle School* is located at 69300 30th Avenue and includes sixth through eighth grades. Although the school has a maximum capacity of 1,497 students, the student body totaled 1,268 students in 2019.

- *Cathedral City High School*, located at 69250 Dinah Shore Drive, includes ninth through twelfth grades. It can accommodate a maximum of 2,968 students and enrolled 1,629 in January 2019.

- *Mt. San Jacinto High School*, a continuation high school, is located at 30800 Landau Boulevard. The school can accommodate a total of 513 students and enrolled 304 in January 2019.

The current student generation factors in the PSUSD are as follows:

Table 2.15-1
PSUSD Student Generation Factors

School Type	Single Family Detached Units	Multi-family Attached Units
Elementary School	0.1211	0.0617
Middle School	0.0795	0.0349
High School	0.1332	0.0526
Total:	0.3338	0.1492

Source: Palm Springs Unified School District - Fee Justification Study for Residential Development School Fee (April 2018).

Private Education

- *Palm Valley School* is located at 35525 Da Vall Drive in Rancho Mirage, a short distance from Cathedral City. This school serves students from throughout the Coachella Valley and provides classroom instruction from preschool through grade 12. Enrollment for the 2018-19 academic year was 307 students.

- *Kings School* is located at 67675 Bolero Road in Palm Springs. The school serves students from preschool through 8th grade. Enrollment for the 2018-19 academic year was approximately 276 students.

Colleges and Universities

Regional colleges and universities include the Coachella Valley Campus of Brandman University, College of the Desert (COD), Coachella Valley Campus of California State University-San Bernardino (CSUSB), and University of California-Riverside (UCR) Palm Desert Center, all of which are located in the City of Palm Desert. Mayfield College is located at 35325 Date Palm Drive in Cathedral City.

Parks

Discussion of City parks is provided in Section 2.13, Parks and Recreational Facilities, of this DEIR.

Library Facilities

The Cathedral City Public Library is a branch of the Riverside County Library System and is located at 33520 Date Palm Drive. The library opened in 1996 and consists of a 20,000 square foot facility containing approximately 81,000 volumes. It offers a full range of community programs and services, including youth activities, computer

facilities and workshops, literacy programs, a community meeting room, and a comprehensive HIV/AIDS information center. "Friends of the Library" provides volunteer services and operates a bookstore within the library. Regional library facilities include College of the Desert (COD) Libraries at the Palm Desert, Palm Springs, and Indio campuses, which are open to COD students and the general public and include state-of-the-art research systems. The medical library at Eisenhower Medical Center in Rancho Mirage (lending to non-hospital staff is prohibited) and other branches of the Riverside County Library System are also available for public use.

Utilities and Service Systems

Domestic Water Supply and Distribution

Domestic water for the City of Cathedral City is provided by two water agencies: Coachella Valley Water District (CVWD) and Desert Water Agency (DWA), as discussed below.

Coachella Valley Water District

The Coachella Valley Water District (CVWD) provides domestic water to development north and east of the Whitewater River Stormwater Channel. CVWD utilizes deep wells to extract groundwater from the Whitewater River Subbasin. Within the planning area, CVWD's domestic water system includes 14 well sites, 3 booster stations, 3 water storage reservoirs, and water mains up to 30 inches in diameter.[11] Major water trunk lines include those beneath Date Palm Drive, Vista Chino, 30th Avenue, Ramon Road, Dinah Shore Drive and Gerald Ford Drive. Nearly all development in CVWD's service area, south of I-10, is connected to its water delivery system.

Land north of Interstate-10 in the planning area is also located within CVWD's service area. However, no development in the City has occurred there, and development in the vicinity is sparse and largely limited to scattered residences, and CVWD's domestic water infrastructure in this area is minimal. Two water storage reservoirs are located in the City south of Varner Road, approximately one-half mile west of Date Palm Drive. The reservoirs serve development south of I-10 with a 30-inch water main, which extends south along Varner Road and Date Palm Drive, then crosses beneath the interstate. Other water mains north of I-10 are limited to those on 20th Avenue west of Mountain View Road. CVWD has indicated that it will be able to expand its water delivery system to serve future development in this area, should the demand for such facilities warrant it.

Desert Water Agency

The Desert Water Agency (DWA) provides domestic water to development in those portions of the City located south and west of the Whitewater River Stormwater Channel. Nearly all development in DWA's service area, including development in the Cove and the downtown district, is connected to its water delivery system. Within Cathedral City, DWA's water delivery system includes various wells, booster stations, water storage reservoirs, and water mains ranging in size from 2 to 24 inches in diameter. Two of the wells are located near the intersection of Crossley and Ramon Roads, and the other is located at Cathedral Canyon and Kieley Roads. Major trunk lines include those under East Palm Canyon Drive, Cathedral Canyon Drive, and Perez Road.

Wastewater Collection and Treatment

Coachella Valley Water District

The Coachella Valley Water District provides wastewater collection and treatment services to lands north and east of the Whitewater River Stormwater Channel. Wastewater is conveyed through sewer lines ranging from 4 to 24 inches in diameter. The major wastewater conveyance facilities include 15-inch and 24-inch sewer trunk lines, which extend along Date Palm Drive. From Date Palm Drive, the 15-inch line continues east on Gerald Ford Drive, and the 24-inch line continues east along the Whitewater River Stormwater Channel, where it feeds into the Cook Street Wastewater Reclamation Plant (WRP-10) in Palm Desert.

[11] Personal communication, Dan Ruiz, P.E., Manager, Engineering Division, Coachella Valley Water District. April 16, 2019.

CVWD operates six wastewater reclamation plants (WRP) in the Coachella Valley, with treatment capacities ranging from 0.03 to 24 million gallons per day. Three of its WRPs generate recycled wastewater used for irrigation of golf courses and landscaping. CVWD receives a combined average of 18 million gallons of wastewater per day. Approximately 6.3 billion gallons of wastewater are treated yearly. CVWD continually increases the capacity of its wastewater reclamation facilities by constructing new treatment ponds, aeration plants, and other structures. Wastewater from Cathedral City is conveyed to and treated at WRP-10 in Palm Desert.

Desert Water Agency
DWA's service area encompasses lands south and west of the Whitewater River Stormwater Channel. Its sewer mains range from 8 to 18 inches in diameter. DWA does not operate a wastewater treatment plant. Instead, its wastewater collection system is connected to CVWD's sewer system by two lift stations at: 1) Date Palm Drive and Buddy Rogers Drive, and 2) Cathedral Canyon Drive near Kieley Road. Wastewater collected by DWA is gravity-fed to these lift stations, where it joins CVWD's sewer system and is conveyed to the Cook Street wastewater reclamation plant in Palm Desert.

Septic Usage
In the 1990s, septic tank usage in Cathedral City was linked to high nitrate and bacteria levels in drinking water due to septic tank seepage in the upper levels of the underground aquifer. The City worked with septic tank users in the Cove, Dream Homes, and other neighborhoods to establish assessment districts and secure grants and other funding to complete millions of dollars of sewer improvements. In 2008, the City initiated the Cove Improvement District Sewer and Street Project, a two-phase project that connected Cove residences to the sewer system. The City also passed an ordinance banning septic tanks and began fining homeowners who are not connected to the sewer system. It passed an ordinance (Ord. 626 § 1, 2006) that allows developers to be reimbursed by the city when sewer improvements they install subsequently benefit other properties located between the sewer improvements and the point of connection to an existing main.

Tertiary Treated Water
In response to increasing demands for groundwater supplies in the Coachella Valley, CVWD has implemented the use of tertiary (third-stage) treated wastewater for the irrigation of golf courses and other landscaped areas. Traditionally, wastewater is treated to secondary levels and reintroduced into the groundwater table through percolation ponds. With tertiary treatment techniques, wastewater undergoes an additional stage of treatment, which renders it suitable for irrigation and contributes to water conservation efforts. The Cook Street wastewater treatment plant has a tertiary water capacity of 15 mgd.

Electricity
Southern California Edison (SCE) provides electrical service to the City of Cathedral City and many areas of the Coachella Valley, serving approximately fifteen (15) million people within a service area of approximately 50,000 square miles. SCE generates power from a variety of energy sources, including coal, natural gas, large hydroelectric, nuclear, and renewable sources (which include small hydroelectric, solar, wind, geothermal, biomass, and waste sources).

SCE's facilities include high-voltage transmission lines, lower voltage distribution lines, and substations, which "step down" voltage so that it can be distributed to homes and businesses. SCE's transmission system includes high-voltage lines rated at 500, 230, 115, 66, and 55 kilovolts (kV). These lines connect substations and feed into the distribution network serving businesses, homes, and other electric power customers. Distribution lines are those rated below 55 kV. Electric power is transported to individual homes and businesses from substations through 33 and 12 kV distribution lines. Some distribution lines are supported by wooden poles, while others are undergrounded.

Within Cathedral City, SCE's facilities include four substations, major transmission lines (including those on Date Palm Drive, Landau Boulevard, and Dinah Shore Drive), and distribution lines which carry electricity to homes and businesses.

Planning for future electricity infrastructure involves determining the need for additional facilities, assessing potential environmental impacts, preparing applications for necessary regulatory permits, and regulatory review and approval. SCE performs annual five-year and ten-year growth and service forecasts to assure that its electrical transmission system will be adequate to serve future populations.

Along with the cities of Palm Springs and Palm Desert, Cathedral City has formed an energy provider called Desert Communities Energy (DCE) which is expected to be operational in 2020. DCE is the new public electricity provider in the Coachella Valley which provides locally generated electricity to its customers. DCE partners with local Investor Owned Utilities (such as Southern California Edison) to lower and stabilize electricity rates, offering customers a choice to buy cleaner electricity at competitive prices, and reducing greenhouse gases through the development of a more robust renewable energy infrastructure.[12]

Natural Gas

Southern California Gas (SoCalGas; The Gas Company) provides natural gas services and facilities to Cathedral City. The natural gas originates in Texas and is transported to the Coachella Valley through three east-west trending gas lines, which cross the valley just north of Interstate-10 and continue west to Los Angeles. These include one 30-inch line and two 24-inch lines, with pressures of 2,000 pounds per square inch (psi). In 2019, SoCalGas announced it filed a request with the California Public Utilities Commission seeking to offer renewable natural gas to its customers. Renewable natural gas is produced from waste and agriculture; it can help California reduce its greenhouse gas (GHG) emissions and decrease costs to consumers.

High-pressure gas lines are typically steel pipes with pressures greater than 60 psi. Within Cathedral City, major high-pressure gas lines are located within the rights-of-way of Date Palm Drive, Vista Chino, Varner Road and Mountain View Road. Two high-pressure lines are also located along East Palm Canyon Drive, one on the north side of the street and one on the south. Medium-pressure distribution lines typically consist of plastic pipes (older pipes may be constructed of steel) with pressures less than 60 psi. Most residences are fed through pipes rated at 25 to 40 psi. The Cove and most other residential neighborhoods in the planning area are connected to medium-pressure distribution lines.

Most development in Cathedral City is connected to the natural gas system; however, several small pockets of development are not connected and use propane as an alternative fuel source.

Telecommunication Services

Frontier Communications provides a wide range of residential and commercial telephone services to the City. Telephone services include local and long distance services, calling cards, business 800 numbers, and voice mail. Frontier also provides state-of-the-art data services such as FiOS fiber-based and DSL internet and high-speed data connections, offering speeds of up to 150 Mbps. The backbone of Frontier's communications system consists of central switching offices, which are responsible for the connection of telephone and data transmissions. The City is connected to three central switching offices located outside the City limits and all calls to the City are handled out of these switching stations. Cable television services is provided to the City by Spectrum and Frontier. The City also has access to Channel 17, a public service channel, which it uses to broadcast City Council meetings. Access to this channel is not exclusive to Cathedral City, but is shared with other cities in the Coachella Valley.

[12] Desert Community Energy Website, https://desertcommunityenergy.org/about/, Accessed May 2019.

Solid Waste Management
Burrtec Waste Industries provides solid waste collection and disposal services to Cathedral City through a franchise agreement. Standard residential pick-up occurs once a week, and commercial pick-up is offered up to six days per week. Additional collection services are offered to large waste generators, such as restaurants and hotels. Burrtec collects solid waste from its service area and transfers it to the Edom Hill Transfer Station in northern Cathedral City. Edom Hill is permitted to receive a maximum of 3,500 tons of waste per day.[13] From Edom Hill, waste is trucked to Lamb Canyon Sanitary Landfill in Beaumont, Badlands Landfill in Moreno Valley, or El Sobrante Landfill in Corona. Lamb Canyon and Badlands landfills are owned and operated by Riverside County, and El Sobrante is privately owned. They have a combined remaining capacity of 178.8 million cubic yards.[14, 15, 16]

Burrtec uses a two-cart automated collection system throughout Cathedral City. Customers are provided with one bin for trash and one for green waste; the bins are lifted and dumped into garbage trucks mechanically. Recyclables are placed in curb-side 18-gallon tubs, which are lifted and dumped manually. During 2017, a total of 43,045 tons of trash were collected in Cathedral City.[17]

Recycling
In 2016, Governor Brown signed that California would reduce, recycle, or compost 50% of waste by 2020 and a 75% reduction by 2025. The City's recycling program has proven beneficial in the preservation of landfill space for non-recyclable materials. Green waste is recycled at BioMass in Thermal. Other recyclables, including glass, plastic and newspaper are transported by a third-party hauler to a recycling company in Los Angeles.

2.15.6 Project Impacts

Public Services
Would the project:

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

- ***Fire Protection***
- ***Police Protection***
- ***Schools***
- ***Parks***
- ***Other Public Facilities***

Fire Protection Services
Implementation of the proposed General Plan Update could result in the development of up to 33,396 new dwelling units, an additional 8,937,867 square feet of new commercial structures, and an additional 15,564,546 square feet of industrial space throughout the planning area, in addition to existing development. It would introduce new structures and additional residents to the planning area, thus increasing the demand for the fire protection services.

13 CalRecycle Website - Edom Hill Transfer Station (33-AA-0296), https://www2.calrecycle.ca.gov/SWFacilities/Directory/33-AA-0296/Detail/, Accessed May 2019.
14 CalRecycle Website - Lamb Canyon Sanitary Landfill (33-AA-0007), https://www2.calrecycle.ca.gov/swfacilities/Directory/33-AA-0007, Accessed May 2019.
15 CalRecycle Website - Badlands Sanitary Landfill (33-AA-0006), https://www2.calrecycle.ca.gov/SWFacilities/Directory/33-AA-0006/Inspection/433469/, Accessed May 2019.
16 CalRecycle Website - El Sobrante Landfill (33-AA-0217), https://www2.calrecycle.ca.gov/SWFacilities/Directory/33-AA-0217/Detail/, Accessed May 2019.
17 CalRecycle Jurisdiction Disposal by Facility: Cathedral City 2017

The City has three fire stations currently, but because the City would have more structures at buildout of the proposed General Plan Update, the potential for structural fires would increase. Therefore, the demand for fire protection services, including fire protection resources such as staff, equipment, and fire stations would increase as buildout of the planning area occurs.

Future funding for these additional resources would be provided through the City's general fund, which is maintained through the collection of taxes. In compliance with the City's development mitigation fees, each project proponent would be required to pay Development Impact Fees to offset the project-related demand on existing fire services. The fees would ensure that adequate fire protection and emergency/medical services would be provided. Per Policy 1.2 of the Public Services and Facilities Element, each project would be required to be constructed consistent with current fire regulations and provide fire safety features. Compliance with the applicable design requirements and payment of its full, fair share of infrastructure costs would ensure that development facilitated by the proposed General Plan Update would not result in significant adverse impacts to fire protection services. Impact fees levied on new development in the planning area would be utilized to fund the construction of new stations and/or to expand existing facilities to reduce fire services impacts. Development fees would also be used to purchase required fire trucks and equipment and hire additional fire fighters as needed.

New fire stations or expansion of existing fire facilities could be required as the population and corresponding demand for services increases. However, each facility would be evaluated on a project-by-project basis to assure that environmental impacts are minimized or mitigated, as needed. Implementation of Policy 1.3 of the Public Services and Facilities Element will require the City to provide adequate and timely expansion of fire protection capabilities, services and facilities to meet future development demands. Impacts would be less than significant; no mitigation is required.

Police Protection Services

Implementation of the proposed General Plan Update could result in the addition of approximately 105,532 new residents from the development of 33,396 new dwelling units throughout the planning area. As described in Section 2.15.5, the Police Department's Strategic Plan strives to achieve an officer-to-population ratio of not less than one officers for every 1,000 residents. At this rate, new development resulting from the implementation of the General Plan Update would result in the demand for approximately 106 new law enforcement officers. As previously noted, City's Police Department current response time is around 7 minutes. Without additional staff, future development under the proposed General Plan Update has the potential to impact response times. This increase in demand for police services would be met through the hiring of additional staff, as needed, which would be funded through existing funding mechanisms such as the general fund revenue and grant funding. New police stations or expansion of existing police facilities could be required as the population and corresponding demand for services increases. Each facility would be evaluated on a project-by-project basis to assure that environmental impacts are minimized or mitigated, as needed. Implementation of Policy 1.3 of the Public Services and Facilities Element will require the City to provide adequate and timely expansion of police protection capabilities, services and facilities to meet future development demands. Impacts would be less than significant; no mitigation is required.

Schools

Implementation of the proposed General Plan Update would result in the development of up to 33,396 new dwelling units throughout the planning area. As shown in Table 2.15-1 above, each school level has a unique student generation factor. Assuming a worst-case combined student generation rate (single-family and multi-family student generation rate of 0.1492 elementary/middle/high school students per dwelling unit), approximately 4,983 new elementary/middle/high school students would be generated over the buildout period of the proposed General Plan.

Pursuant to SB 50, PSUSD can collect school impact fees as new development occurs which would serve to fund additional school resources (Policy 3.5 of the Public Services and Facilities Element). Impacts would be less than significant pursuant to SB 50.

New school facilities or expansion of existing school facilities could be required as the population and corresponding demand for services increases. However, each school would be evaluated on a project-by-project basis to assure that environmental impacts are minimized or mitigated, as needed. Therefore, buildout of the proposed General Plan Update would result in a less than significant impact related to schools; no mitigation is required.

Parks
Potential impacts to parks are analyzed in Section 2.13, Parks and Recreational Facilities, of this DEIR.

Libraries
Implementation of the proposed General Plan Update would add approximately 33,396 new dwelling units and approximately 105,532 new residents to the planning area. An increase in residents under the proposed General Plan Update would gradually increase the demand for library services as the planning area builds out.

New library facilities or expansion of existing facilities could be required as the population and corresponding demand for services increases. Each facility would be evaluated on a project-by-project basis to assure that environmental impacts are minimized or mitigated, as needed. Furthermore, to assure sufficient future expansion of library facilities in the City, the proposed General Plan Public Services and Facilities Element includes Policy 3.4 which requires the City to coordinate with the Riverside County Library System. Therefore, the buildout of the proposed General Plan Update would result in a less than significant impact related to libraries; no mitigation is required.

Utilities and Service Systems
Would the project:

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

Projected development under the General Plan update would increase demand for water, wastewater treatment, storm water drainage, electric power, natural gas, and/or telecommunications services. As discussed above, it is projected that the General Plan Update would accommodate a total of 54,615 residential units, 13,116,382 square feet of commercial uses, and 17,781,959 square feet of industrial uses in the City by the year 2040. Depending on location, new connections would receive utility services from the existing utility providers. Currently, the majority of the planning area is developed, and the utility infrastructure is already in place. Future development under the proposed General Plan would be required to connect to the existing or expanded utility infrastructure. To ensure adequate system capacity to meet the growing needs of the City, the utility providers have plans in place which would be updated based on future demands in their jurisdictions. Providers are planning for and are expected to have adequate capacity to serve new connections/development or expanded service, which will depend on the actual rate of growth in their respective service boundaries.

In addition, the proposed General Plan Update includes policies and implementation programs that would increase the utility supply and reduce utility demands in the planning area, as needed. The Public Services and Facilities Element includes the following policies and implementation programs that address potential impacts to utility suppliers serving the City.

Policies 4.1 and 4.2 of the Public Facilities Sub-Element and 5.1 and 5.2. of Water, Sewer and Utilities Sub-Element encourage the City to work with public services and utility providers such as CVWD, DWA, SCE, SCG, Frontier, and Spectrum to establish and implement a Capital Improvement Program and Land Use Map to allocate appropriate budgets, lands, and sites for future public and quasi-public buildings, infrastructure, and other facilities. Policy 4.6 of the Public Facilities Sub-Element requires the public facilities to be responsive to the needs of the community and maintained in a manner that enhances the comfort and safety of community members, City employees, and other occupants.

Both SCE and SoCalGas are regulated by the California Public Utilities Commission (CPUC), which mandates that electric and natural gas service must be provided to new customers. The need for, and location of, new or expanded dry utility infrastructure, including communication systems, would be determined on a project-by-project basis. Generally, extension of dry utility services to new development occurs within the service provider's easement or within that project's boundary. The potential environmental impacts related to the need for new or expanded dry utility infrastructure, where applicable, would be addressed through each project's environmental review process under CEQA.

With implementation of the proposed General Plan Update goals and policies described, there would be a less than significant impact related to the need for new or expanded utilities. No mitigation is required.

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

As discussed above, CVWD and DWA provide domestic water to Cathedral City. Future residential development facilitated by the proposed General Plan Update would increase the population in the planning area. At General Plan buildout, a total of approximately 54,615 residential units could exist within the planning area. Commercial uses could increase to 13,116,382 square feet, and industrial uses could increase to approximately 17,781,959 square feet. As discussed in Section 2.14., Population, Housing, and Economic Resources of this EIR, implementation of the General Plan Update would result in a total citywide population of 159,998 persons at General Plan buildout. This increase in growth and development as a result of the proposed General Plan Update would result in an increase in domestic water demand. Using CVWD's annual water consumption factors, buildout of the proposed General Plan Update could result in the demand for approximately 20,770 acre-feet per year (AFY) of domestic water (Table 2.15-2).

Table 2.15-2
Estimated Water Demand at 2040 General Plan Update Buildout

Land Use	CVWD Water Consumption Factor*	Conditions at General Plan Buildout (2040)	Total Water Demand (AFY) at General Plan Buildout (2040)
Single-Family Residential	2.31 acre-feet per acre per year (AFY)	6,670.17 acres	15,408.09
Multi-Family Residential	2.06 acre-feet per acre per year (AFY)	824.74 acres	1,698.96
Commercial	1.92 acre-feet per acre per year (AFY)	1,575.32 acres	3,024.61
Industrial	0.51 acre-feet per acre per year (AFY)	1,251.38 acres	638.20
		TOTAL	20,769.86

* CVWD's annual water consumption factors from Supplemental Water Supply Program and Fee Study Prepared for the City of Coachella in 2016.

The planning area is served by CVWD and DWA. According to CVWD's 2015 Urban Water Management Plan (UWMP), the urban water demands in the CVWD service area are estimated to grow from 114,600 AFY in 2020 to 194,300 AFY in 2040.[18] According to DWA's 2015 UWMP, the urban water demands in the DWA service area are estimated to grow from 42,708 AFY in 2020 to 50,575 AFY in 2040.[19] At General Plan buildout, the water demand in Cathedral City would represent approximately 8.5 percent of the total projected 2040 water demand of 244,875 AF for both CVWD and DWA combined.

[18] 2015 Urban Water Management Plan (UWMP) for CVWD, Prepared by MWH in July 2016.
[19] 2015 Urban Water Management Plan (UWMP) for DWA, Prepared by Krieger and Stewart Engineering Consultants in June 2016.

According to CVWD's and DWA's 2015 UWMP, available water supplies are sufficient to meet the anticipated demand for 2020 through 2040 during normal, single dry, and multiple dry water years. This result is based on the volume of water available in the aquifer, CVWD's Colorado River contract supply, State Water Project (SWP) Table A amounts, water rights and water supply contracts, and CVWD's and DWA's commitments to eliminate overdraft and reduce per capita water use in CVWD's and DWA's service area.

In addition, the proposed General Plan Update includes policies and implementation programs that seek to reduce water demand and protect water resources in the planning area. Policy 6.2 of the Water, Sewer and Utilities Sub-Element requires the City to monitor resource management activities of the CVWD, DWA, and CRWQCB to preserve and protect water resources and quality.

In summary, implementation of the proposed General Plan update would result in increased demand for domestic water as the population increases and development occurs in the planning area. The City would work with water agencies to assure sufficient water would be available in the future during normal, dry and multiple dry years. Due to sufficient ground water resources and General Plan policies to conserve water resources, buildout of the proposed General Plan Update would result in less than significant impacts related to water resources; no mitigation is required.

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

Projected development under the General Plan Update would increase the generation of wastewater. Wastewater treatment is provided to the planning area by the CVWD and DWA. All wastewater collected in Cathedral City is treated at CVWD's Cook Street wastewater reclamation plant (WRP-10), which currently treats approximately 15 million gallons of wastewater per day.[20] CVWD continually increases the capacity of its wastewater reclamation facilities by constructing new treatment ponds, aeration plants, and other structures.

As discussed earlier, it is projected that the General Plan update would accommodate a total of up to 54,615 new residential units, 13,116,382 square feet of commercial uses, and 17,781,959 square feet of industrial uses in the City at General Plan buildout, in addition to existing development. Depending on location, new connections would receive wastewater treatment from CVWD or DWA. Currently, the majority of the planning area is developed, and the main wastewater treatment lines and infrastructure is already in place. Future development under the General Plan update would be required to connect to existing main wastewater treatment lines. To ensure adequate system capacity to meet the growing needs of the City, both CVWD and DWA have plans in place which would be updated based on future demands in their jurisdictions.

In addition, proposed General Plan update policies and implementation programs seek to increase the wastewater treatment and reduce wastewater generation in the planning area. The Public Services and Facilities Element includes the following policies and programs that address potential impacts to wastewater treatment facilities in the City. Policy 6.1 of the Water, Sewer and Utilities Sub-Element encourages CVWD and DWA to implement short- and long-term plans for an integrated, city-wide sewer system. Program 6.1.1 requires the City to evaluate a wide range of methods to finance the expansion of the sewer system, including assessment districts and a financial assistance program for existing neighborhoods. Policies 6.2 and 6.3 of the Water, Sewer and Utilities Sub-Element require the City to monitor resource management activities of the CVWD, DWA, and CRWQCB to preserve and protect water resources and quality.

[20] CVWD's 2015 Urban Water Management Plan (Page 6-22).

Overall, new wastewater treatment facilities or expansion of existing wastewater treatment facilities could be required as the population and corresponding demand for services increases. However, each wastewater treatment facility would be evaluated on a project-by-project basis to assure that environmental impacts are minimized or mitigated, as needed. Therefore, buildout of the proposed General Plan update would result in a less than significant impacts related to wastewater treatment facilities; no mitigation is required.

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

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

As discussed above, the City contracts with Burrtec for solid waste collection and disposal services. Future residential development facilitated by the proposed General Plan Update would increase the population in the planning area. At General Plan buildout, approximately 54,615 residential units could be built within the planning area. Commercial uses could total 13,116,382 square feet, and industrial uses could total 17,781,959 square feet. As discussed in Section 2.14, Population, Housing, and Economic Resources of this EIR, implementation of the General Plan Update would result in a population increase of approximately 105,532 new residents, resulting in a total citywide population of 159,998 persons at General Plan buildout. This increase in growth and development as a result of the proposed General Plan update would result in an increase in solid waste generation, and increased demand for solid waste services throughout the City. Using solid waste generation factor provided by CalRecycle, buildout of the proposed General Plan update could result in the generation of approximately 85,428 tons per year of solid waste, assuming a 50% diversion rate (Table 2.15-3).

Table 2.15-3
Estimated Solid Waste Disposal at 2040 General Plan Update Buildout

Land Use	CIWMB Disposal Rates	Conditions at General Plan Buildout (2040)	Solid Waste Disposal (pounds per day)	Solid Waste Disposal (tons per year)
Residential	5.2 pounds/resident/day*	159,998 persons	831,990	151,838
Commercial	5 pounds/1000 square feet /day**	13,116,382 square feet	65,582	11,969
Industrial	5 pounds/1000 square feet /day**	17,781,959 square feet	88,910	16,226
		TOTAL	986,482	180,033
		TOTAL (with 50% diversion)	493,241	90,017

*California's 2017 Per Capita Disposal Rate, using SB 1016's measurement system, by CalRecycle.
**Estimated Solid Waste Generation Rates by CalRecycle.

As shown in Table 2.15-3, buildout of the proposed General Plan planning area would result in solid waste disposal of approximately 986,482 pounds per day, or 180,033 tons per year. State law (AB 939) requires a 50 percent diversion of solid waste from landfills; after diversion, solid waste disposal at General Plan buildout is projected to be 493,241 pounds per day, or 90,017 tons per year. As discussed above, the three landfills serving the region have a combined remaining capacity of 178.8 million cubic yards. Waste generated by the development under the proposed General Plan Update would not exceed the capacity of these landfills.

Cathedral City, Burrtec Waste Industries, and landfills serving Cathedral City are required to comply with applicable solid waste management and reduction statutes and regulations. The proposed General Plan update would have no impact on their compliance with these requirements.

Overall, with continuing adherence to the requirements of AB 939 and implementation of the identified goal and related policies in the proposed General Plan Update, the City would maintain compliance with applicable statutes and regulations related to solid waste, and impacts would be less than significant.

2.15.7 Mitigation Measures

As noted above, the Public Services and Facilities Element and its sub-elements includes policies and programs that will serve to effectively avoid, minimize and otherwise mitigate potentially significant impacts to public services, utilities and facilities that could result from implementation of the General Plan update. The following measures are derived from the Public Services and Facilities Element and sub-elements, and serve to reinforce actions to be taken by the City and applicants to ensure that services, utilities and facilities will be able to serve existing and planned land uses.

Fire and Police Services

PS-1 The Fire and Police Departments shall coordinate with other City departments and schedule periodic review, access and update the Strategic Plans and Local Hazards Mitigation Plan.

PS-2 The Fire and Police Departments shall evaluate proposals for new development to assure adequate emergency access, the integration of defensible space principles, clear street name signage and numbering, internal circulation, fire flow and other safety design considerations.

PS-3 The City shall apply objective criteria, including appropriate minimum response time, the matching of services and facilities to local needs, and the availability of alternative routes to serve target neighborhoods, and assure the optimal siting of future fire and police stations.

PS-4 The City shall evaluate current and potential methods of financing the expansion of fire and police services, including developer impact fees, assessment districts, and fire and police permitting fees for development occurring in high security or fire risk areas.

PS-5 City departments shall continue to collaborate between County Health and Human Services staff and law enforcement personnel to provide training and education on methods for addressing mental health patients in the criminal justice system.

PS-6 The City shall strictly enforce the California Building and Fire Codes, City Municipal Code and other applicable building standards in the course of reviewing development plans and conducting building inspections.

PS-7 The siting of facilities that produce, store, use or transport hazardous, flammable or explosive materials shall be conducted in a manner which assures the highest level of safety, in strict conformance with the California Building and Fire Codes, Municipal Code and other applicable regulations.

PS-8 An ongoing effort shall be made to enhance public awareness and participation in crime prevention, and encourage and promote the Neighborhood Watch Program, Citizens on Patrol and other community-oriented policing programs. The City shall develop new and expand existing educational programs dealing with personal safety awareness, such as neighborhood and commercial association watch/protection programs, and emergency preparedness and education for residents to register their cell phone with "Alert RivCo" at https://rivcoready.org/AlertRivCo used to alert Riverside County community members of urgent actions to take during disasters, such as earthquakes, wildfires, and floods.

Schools and Libraries

PS-9 Review PSUSD and COD development proposals and environmental documentation, and otherwise coordinate with these institutions in planning new public school facilities as part of the City's continuing effort to provide enhanced educational opportunities for the community's residents.

PS-10 Routinely evaluate and update the Land Use Element and confer with potentially affected institutions to ensure that school and library sites are compatible with surrounding land uses, arterial roadways and significant noise generators.

PS-11 The City shall encourage and/or require the use of design and development techniques, such as sound attenuation walls, earthen berms and acoustical insulation in buildings, that mitigate potential traffic and other noise impacts on schools and libraries.

PS-12 The City shall proactively pursue agreements with the Palm Springs Unified School District regarding the shared purchase, lease, and/or joint use of land for school and recreational purposes. Provisions shall be made to optimize access to recreation facilities and open space for the community during non-school hours.

PS-13 The City shall coordinate with PSUSD, COD and the Riverside County Library System to ensure that safe routes and means to school and library facilities through the thoughtful implementation of the Circulation and Mobility Element and the Active Transportation Plan.

Public Facilities

PS-14 The City shall periodically review its official Land Use Map and development patterns to assure the availability of adequate sites for future public and quasi-public buildings, infrastructure, and other facilities. The City shall confer and coordinate with utilities and other public and quasi-public agencies regarding their long-term needs.

PS-15 Establish and implement a Capital Improvement Program review and update schedule, which includes annual reviews, analysis and comprehensive revisions every five years.

PS-16 All new maintenance and utility facilities (and their signage) shall be integrated into the surrounding environment using landscape treatments, architectural elements, and/or other appropriate design mechanisms. Design plans shall be reviewed by the Planning Department.

PS-17 Consult and coordinate with Southern California Edison regarding the costs, methods, potential barriers to, and feasibility of undergrounding electrical power lines.

PS-18 Critical structures and facilities (including civic administrative center, hospitals, fire stations, police stations, schools and major communications facilities) shall be restricted from geologically and hydrologically hazardous areas, to the greatest extent practical.

PS-19 Investigate the feasibility of expanding the City's existing corporate yard to accommodate larger office space, parking lots, and maintenance facilities.

PS-20 Continue to investigate the feasibility of constructing a new community center, including potential sites, constraints, and funding opportunities.

PS-21 Establish a facilities upkeep and restoration master plan for City-owned facilities.

Water, Sewer and Utilities

PS-22 Confer and coordinate with CVWD and DWA on methods to finance the upgrading and expansion of the sewer and domestic water systems, including the establishment of assessment and/or community facilities districts that also provide financial assistance for economically disadvantaged neighborhoods.

PS-23 The City shall support the efforts of DWA and CVWD to construct and expand facilities that treat and distribute reclaimed water.

PS-24 The City shall explore avenues for the expansion of roof-top solar and utility-scale wind energy development, and the implementation of domestic and utility-scale storage systems.

PS-25 The City shall confer and coordinate with SCE to identify existing above-ground power lines that are candidates for cost-effective undergrounding, with a special emphasis on those occurring along City image corridors.

2.15.8 Significance After Mitigation

With mitigation measure, the proposed General Plan Update would not result in any significant impacts to public services, utilities, or service systems.

2.15.9 Cumulative Impacts

Public Services
Implementation of the proposed General Plan Update would gradually increase development, employment and permanent population in the planning area, which would increase the demand for public services and facilities. This growth would be consistent with anticipated long-term, regional growth in the Coachella Valley and will contribute incrementally to a broader increased demand for services Some services are strictly managed by the City, but others are provided by agencies (County Libraries and PSUSD) that also serve surrounding communities and must balance resources to serve a broader area that extends beyond the city boundaries. The General Plan includes numerous policies and programs that require the City to monitor growth and expand services as needed, and to coordinate with various agencies and companies to assure adequate services are provided. The proposed programs and policies ensure impacts will be less than significant and the project's impacts will be less than cumulatively considerable.

Utilities and Service Systems
Development facilitated by the proposed General Plan update, in combination with all other development within the service boundaries of utility providers, would result in increased demand for electricity, natural gas, water, wastewater, and solid waste resources and services. As private companies, SCE and SoCalGas continuously plan for growth and expand their infrastructure according to demand. Quasi-public agencies, such as CVWD and DWA, work with regional communities, including Cathedral City, to plan for growth. The proposed General Plan includes policies and programs that require the City to coordinate with local service providers to plan for future growth, require developers to contribute to the installation and operation of expanded infrastructure, and implement measures to reduce consumption of resources. The proposed General Plan would minimize potential impacts such that they would not be cumulatively considerable.

2.16 Transportation

2.16.1 Introduction

This section of the EIR describes existing conditions of the local transportation network and traffic volumes within Cathedral City and analyzes the potential impacts of the proposed General Plan update on the surrounding transportation system and future long-term traffic conditions. The proposed General Plan includes an *Active Transportation Plan,* which facilitates the evolution of the City toward a more multi-modal transportation network. The following analyses how General Plan buildout will affect local and regional roadways and alternative modes of transportation, such as bike lanes, public transit, and multi-modal facilities.

A wide range of data and information, cited throughout this section, has been used in researching and analyzing the Proposed Project and its potential effects on the local transportation network and traffic. The following Project-specific studies are included in the appendices of this DEIR: 1) Cathedral City General Plan Update Transportation Analysis, Urban Crossroads, Inc., February 13, 2019 (Appendix E); and 3) Cathedral City Active Transportation Plan, Urban Crossroads, Inc., February 14, 2019 (Appendix F).

2.16.2 Thresholds of Significance

The following thresholds or significance criteria are derived from Appendix G: Environmental Checklist of the CEQA Guidelines and are used to determine the level of potential effect associated with a Proposed Project. The Project would have a significant effect on transportation if it would:

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

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

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

d) Result in inadequate emergency access.

2.16.3 Regulatory Framework

Federal

No federal regulations associated with transportation and traffic are applicable to the proposed General Plan update. It should be noted that General Plan transportation goals, policies, and programs take into consideration federal regulatory responsibility for federal highways like Interstate-10, Union Pacific Railroad lines and operations, and other parts of the railway network, and operations at the Palm Springs International Airport. These responsibilities are also shared with state and some county agencies.

State

Highways

The California Department of Transportation (Caltrans) has jurisdiction over state highway facilities, including freeway segments, signalized intersections on state highways, and on- and off-ramp intersections with local roadways. Caltrans Guidelines recommend a target Level of Service (LOS)[1] between LOS C and LOS D for its facilities. If the location under existing conditions operates worse than the appropriate target LOS, then the existing LOS should be maintained (Caltrans 2002).

[1] LOS is a scale used to determine the operating quality of a roadway segment or intersection based on volume-to-capacity (V/C) ratio or average delay experienced by vehicles on the facility. The levels range from A to F, with LOS A representing free traffic flow and LOS F representing severe traffic congestion.

Railroads

The California Public Utilities Commission (CPUC) has regulatory authority over numerous railroads within the state, including the Union Pacific Railroad (UPRR) operating lines that cross through Cathedral City. The CPUC oversees rail safety and employs federally certified inspectors to ensure that UPRR complies with both federal and state railroad safety regulations.

Regional and Local

Regional Transportation Plan/Sustainable Communities Strategy

The Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)[2] identifies policies, projects, and programs needed over a 20+ year period to maintain, manage, and improve transportation systems in the Southern California Association of Governments (SCAG) region. It is updated every four years. The 2016-2040 RTP/SCS includes regional growth forecasts, a strategic plan, and a sustainable communities strategy to improve the transportation system to meet the demands of a growing population. It promotes active transportation improvements, such as a regional greenway network, bike share services, complete sidewalks and bikeway networks, and neighborhood mobility areas.

Transportation Project Prioritization Study

The Coachella Valley Association of Governments (CVAG) is responsible for identifying and prioritizing transportation projects in the Coachella Valley. The 2016 Transportation Project Prioritization Study (TPPS) ranks regionally significant roadway segments to determine which roadways have the greatest need for improvement and where funding should be directed.

County Congestion Management Program

The Riverside County Congestion Management Program (CMP) is prepared by the Riverside County Transportation Commission (RCTC) with the express purpose of more directly linking land use, transportation, and air quality throughout the County. For designated roadways, the CMP establishes minimum level-of-service (LOS) standards and transportation management strategies to improve LOS. The CMP was last adopted in 2011. CMP designated roadways in Cathedral City include I-10, East Palm Canyon Drive/Highway 111, and Ramon Road.[3]

CVAG and City Active Transportation Plan

The Coachella Valley Association of Governments (CVAG) *Active Transportation Plan*[4] (ATP) (2016) establishes a long-range plan for developing bicycle, pedestrian, and neighborhood electric vehicle (NEV) and other low-speed electric vehicle (LSEV) facilities in the Coachella Valley. The City's ATP plan and network (2019) is built off of and is a much detailed elaboration of the CVAG ATP shown on Exhibit 2.16-2.

Cathedral City General Plan

The proposed General Plan Circulation Element sets forth long-range goals, policies, and programs pertaining to all aspects of the local circulation system. Therefore, the following policies are applicable to the Proposed Project.

Policy 1 The City circulation and mobility network shall be planned and developed to assure the provision of safe and efficient vehicular, pedestrian, bicycle and LSEV access to all parts of the community, effectively linking residents and visitors to the full range of residential, employment, shopping, and recreational land uses.

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2 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy, Southern California Association of Governments, 2016.

3 Table 2-1, Riverside County Congestion Management Program, 2011.

4 "Coachella Valley Association of Governments Active Transportation Plan," Michael Baker International, 2016.

Policy 2 Transit stops and pedestrian, bicycle and LSEV paths shall be sited in conformance with the General Plan roadway classifications and the City Active Transportation Plan. Standards and guidelines shall be applied in a manner that encourages the use of alternatives modes of transportation and provides safe, convenient access to commercial and employment centers, as well as institutional and recreational land uses.

Policy 3 The City shall assure that the current and future City roadway segments and intersections maintain minimum operating standards that do not exceed Level-of-Service (LOS) "D" during peak hours of traffic. Along roadway segments and intersections where LOS D may not be achievable after applying all practicable measures, the City shall find LOS "E" during peak hours to be provisionally acceptable.

Policy 4 Given the programmatic nature of the General Plan traffic analysis, development proposals which may generate traffic volumes or other impacts beyond the scope of the General Plan analysis should be required to conduct project-specific traffic studies to assure that project impacts are adequately mitigated.

Policy 5 Mixed-use and other integrated development plans may propose the construction of public and/or private streets that conform with the New Urbanism and Complete Streets design principles, assuming sufficient technical support to argue for their safe and efficient use is provided, and the concerns of all public service and protection providers are satisfied.

Policy 6 In order to preserve the capacity of the City's major roadways and assure a safe and economical circulation system, development proposed along arterial roadways shall be designed to limit access to these arterials to the minimum needed to effectively serve the development.

Policy 7 The City shall periodically review and update its transportation system Capital Improvement Program to ensure that it keeps pace with the need for network improvements that continue to provide an acceptable level of service and a safe and efficient system.

Policy 8 The implementation of this element may require flexibility in applying and adapting roadway design standards and specifications, therefore, the Public Works Director is authorized to make consistency findings to permit modifications that do not compromise the operational capacity of the subject roadway or intersection.

Policy 9 The City shall facilitate the design, installation and maintenance of a community locational/directional sign program to efficiently direct traffic to high use areas, including the downtown/civic center, parks, golf courses, Palm Springs International Airport, and other facilities and major attractions and destinations in and around the City.

Policy 10 The City shall coordinate and cooperate with the Palm Springs Airport Commission and the Riverside County Airport Land Use Commission to assure that the Palm Springs International Airport continues to meet the City's existing and future transportation, commercial and emergency response needs.

Policy 11 On an ongoing basis, the City shall confer and coordinate with the SunLine Transit Agency on the expansion of routes, facilities, services and ridership especially in congested areas and those with high levels of employment and commercial services, and encourage the use of most energy efficient and least polluting transportation technologies.

2.16.4 Regional Environmental Setting

Cathedral City is in the northwesterly portion of the Coachella Valley. It is generally bisected by US Interstate-10 (I-10), which extends through the valley in a northwest-southeasterly trending direction and connects the region to western Riverside County and the Los Angeles metropolitan area to the west, and desert communities and Arizona to the east. East Palm Canyon Drive (known as State Highway 111 elsewhere in the valley) is south of and parallel to I-10. It accommodates local and regional traffic through one of the City's principal commercial corridors and connects the City with other Coachella Valley communities from Palm Springs on the west to the Salton Sea and Imperial County on the east.

South of I-10, major arterials generally occur in a north-south/east-west grid pattern; they include East Palm Canyon Drive/Highway 111, Vista Chino, Ramon Road, Dinah Shore Drive, Landau Boulevard, Cathedral Canyon Drive, Date Palm Drive, and others. Land north of I-10 is largely undeveloped, and most vehicular traffic is accommodated by Varner Road which provides east-west connectivity between the communities of North Palm Springs and Thousand Palms.

The City and the broader Coachella Valley contain a variety of alternative transportation improvements, including sidewalks, bike lanes and bike paths, trails, and the CV Link multi-modal pathway. Sunline Transit Agency provides public transit services throughout the valley. Union Pacific Railroad (UPRR) provides freight and passenger rail service on rail lines parallel to and immediately south of I-10. The Palm Springs International Airport is the largest regional airport and accommodates the majority of passenger flights to and from the Coachella Valley. The Bermuda Dunes Airport and Jacqueline Cochran Regional Airport accommodate smaller aircraft and helicopters. These facilities are described in more detail in Section 2.16.5.

2.16.5 Existing Conditions

Study Locations

The study area for the Cathedral City General Plan transportation analysis was determined by City staff and project consultants. The study area includes thirty (30) intersection analysis locations and thirty-seven (37) roadway segment analysis locations in Cathedral City; they are listed in the following table.

Table 2.16-1
Intersection and Roadway Analysis Locations

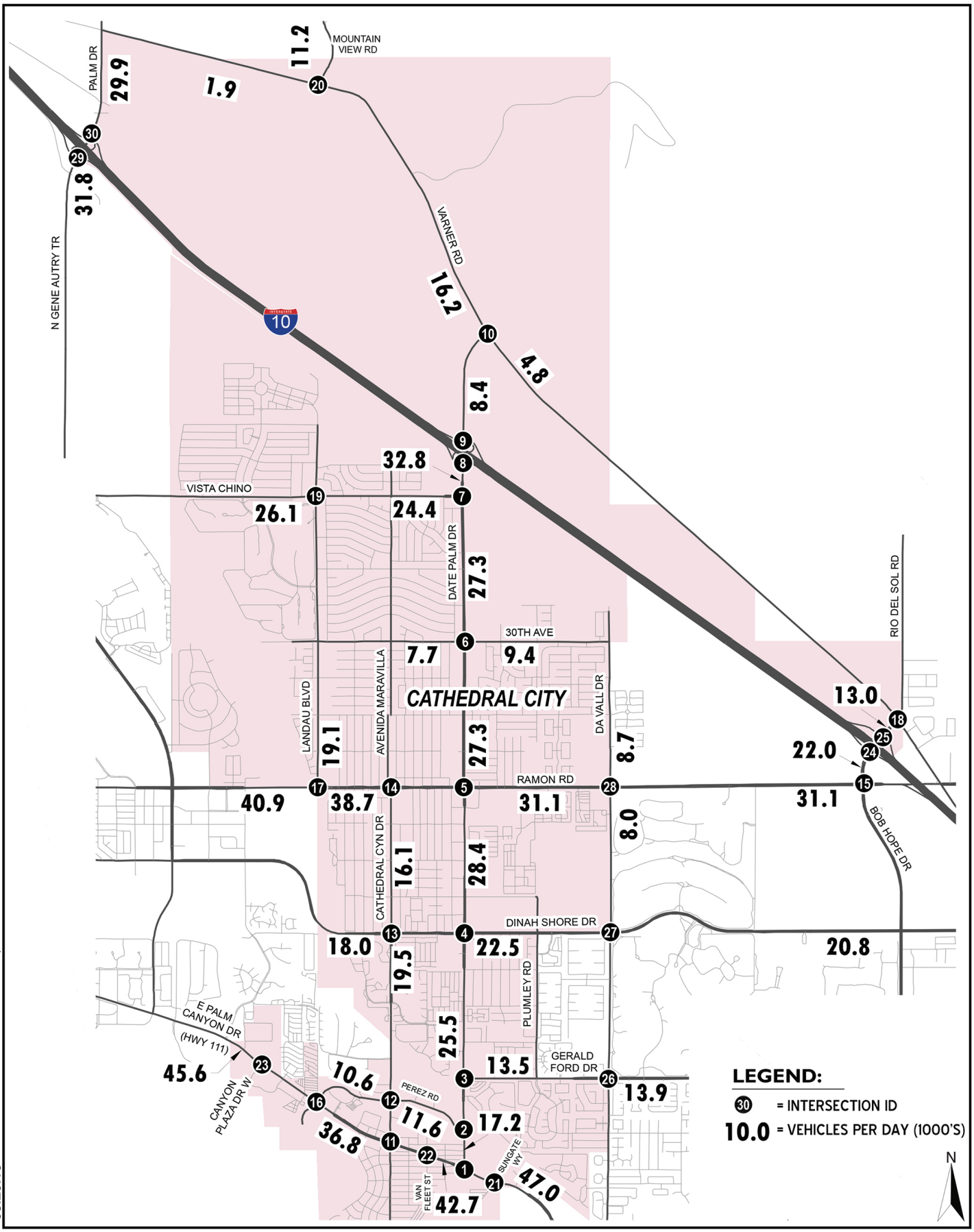
Peak Hour Intersection Analysis Locations (30)	
1 Date Palm/Hwy 111	16 Perez Rd./Hwy 111
2 Date Palm/Perez Rd.	17 Landau Blvd./Ramon Rd.
3 Date Palm/Gerald Ford Dr.	18 Bob Hope Dr./Varner Rd.
4 Date Palm/Dinah Shore Dr.	19 Landau Blvd./Vista Chino
5 Date Palm/Ramon Rd.	20 Mountain View Rd./Varner Rd.
6 Date Palm/30th Ave.	21 Sungate Wy./Hwy 111
7 Date Palm/Vista Chino	22 Van Fleet St./Hwy 111
8 Date Palm/I-10 EB Ramps	23 Canyon Plaza Dr./Hwy 111
9 Date Palm/I-10 WB Ramps	24 Bob Hope Dr./I-10 EB Ramps
10 Date Palm/Varner Rd.	25 Bob Hope Dr./I-10 WB Ramps
11 Cathedral Cyn. Dr./Hwy 111	26 Da Vall Dr./Gerald Ford Dr.
12 Cathedral Cyn. Dr./Perez Rd.	27 Da Vall Dr./Dinah Shore Dr.
13 Cathedral Cyn. Dr./Dinah Shore Dr.	28 Da Vall Dr./Ramon Rd.
14 Cathedral Cyn. Dr.-Avenida Maravilla/Ramon Rd.	29 Gene Autry Trl./I-10 EB Ramps
15 Bob Hope Dr./Ramon Rd.	30 Gene Autry Trl.-Palm Dr./I-10 WB Ramps
24-Hour Roadway Segment Analysis Locations (37)	
1 Date Palm Dr., north of Palm Canyon Dr.	20 Gerald Ford Dr., east of Da Vall Dr.
2 Date Palm Dr., north of Gerald Ford Dr.	21 Gerald Ford Dr., east of Date Palm Dr.
3 Date Palm Dr., north of Dinah Shore Dr.	22 Dinah Shore Dr., west of Bob Hope Dr.
4 Date Palm Dr., north of Ramon Rd.	23 Dinah Shore Dr., east of Date Palm Dr.
5 Date Palm Dr., north of 30th Ave.	24 Dinah Shore Dr., west of Cathedral Cyn. Dr.
6 Date Palm Dr., north of Vista Chino	25 Ramon Rd., west of Bob Hope Dr.
7 Date Palm Dr., north of I-10 WB Ramps	26 Ramon Rd., east of Date Palm Dr.
8 Cathedral Cyn. Dr., south of Dinah Shore Dr.	27 Ramon Rd., west of Cathedral Cyn. Dr.
9 Cathedral Cyn. Dr., south of Ramon Rd.	28 Ramon Rd., west of Landau Blvd.
10 Landau Blvd., north of Ramon Rd.	29 30th Ave., east of Date Palm Dr.
11 Bob Hope Dr., north of Ramon Rd.	30 30th Ave., west of Date Palm Dr.
12 Da Vall Dr., south of Ramon Rd.	31 Vista Chino, west of Date Palm Dr.
13 Da Vall Dr., north of Ramon Rd.	32 Vista Chino, west of Landau Blvd.
14 Hwy. 111, east of Sungate Wy.	33 Varner Rd., east of Date Palm Dr.
15 Hwy. 111, west of Date Palm Dr.	34 Varner Rd., west of Date Palm Dr.
16 Hwy. 111, west of Cathedral Cyn. Dr.	35 Bob Hope Dr., north of I-10 WB Ramps
17 Hwy. 111, west of Canyon Plaza Dr. W.	36 Gene Autry Trl., south of I-10 EB Ramps
18 Perez Rd., west of Date Palm Dr.	37 Gene Autry Trl.–Palm Dr., north of I-10 WB Ramps
19 Perez Rd., west of Cathedral Cyn. Dr.	

Source: Table 3-1, "Cathedral City General Plan Transportation Analysis" Urban Crossroads, Inc., February 13, 2019.

Existing Circulation Network

Existing intersection operations were evaluated for the above-listed intersections (see Appendix E).[5] Weekday AM peak hour (between 7:00 AM and 9:00 AM) and weekday PM peak hour (between 4:00 PM and 6:00 PM) counts were collected for the intersections in spring 2018 to represent typical peak season weekday peak hour traffic conditions in the study area. Existing 2017 weekday average daily traffic (ADT) volumes on arterial existing arterial highways in the study area are shown on Exhibit 2.16-1.

[5] "Cathedral City General Plan Update Transportation Analysis, Cathedral City, California," Urban Crossroads, Inc., February 13, 2019.



Source: Urban Crossroads, 2018

08.29.18

TERRA NOVA®
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City of Cathedral City General Plan EIR
Existing ADT Volumes
Cathedral City, California

Cathedral City

Exhibit
2.16-1

Level of Service Definition

Traffic operations of roadway facilities are described in terms of "Level of Service" (LOS). LOS is a qualitative measurement that is typically dependent on the quality of traffic flow at the intersections along a roadway. Levels of Service are described as a range of alphabetical connotations, "A" through "F," which are used to characterize roadway and intersection operating conditions. LOS A represents the best, free flow conditions, and LOS F indicates the worst conditions and system failure.

Table 2.16-2
Roadway Level Of Service Description

Level of Service	Quality of Traffic Flow
A	Primarily free-flow operations at average travel speeds usually about 90 percent of the free-flow speed for the arterial classification. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Stopped delay at signalized intersections is minimal.
B	Reasonably unimpeded operations at average travel speeds usually about 70% of the free-flow speed of the arterial classification. Ability to maneuver within the traffic stream is only slightly restricted. Stopped delays are not bothersome, and drivers generally are not subject to appreciable tension.
C	Traffic operations are stable. However, mid-block maneuverability may be more restricted than in LOS B. Longer queues, adverse signal coordination, or both may contribute to lower average travel speeds of about 50% of the average free-flow speed for the arterial classification. Motorists will experience some appreciable tension while driving.
D	Borders on a range where small increases in flow may cause substantial increases in approach delay and decreases in arterial speed. LOS D may be due to adverse signal progression, inappropriate signal timing, high volumes, or some combination of these factors. Average travel speeds are about 40% of the free-flow speed. For planning purposes, this level-of-serve is the lowest that is considered acceptable.
E	Characterized by significant approach delays and average travel speeds of one-third or less of the free-flow speed. Typically caused by some combination of adverse progression, high signal density (more than two signalized intersections per mile), high volumes, extensive queuing, delays at critical intersections, and/or inappropriate signal timing.
F	Arterial flow at extremely slow speeds, below one-third to one-fourth of the free-flow speed. Intersection congestion is likely at critical signalized intersections, with high approach delays and extensive queuing. Adverse progression is frequently a contributor to this condition.

Source: Highway Capacity Manual, Transportation Research Board - Special Report 209, National Academy of Science, Washington, D.C. 2010.

For signalized and unsignalized intersections, LOS is directly related to the average control delay per vehicle. For unsignalized intersections, Cathedral City requires operations to be evaluated using the methodology described in the Highway Capacity Manual (6th edition). The LOS rating is based on the average weighted average control delay expressed in seconds per vehicle, as described in Table 2.16-3 below. The amount of delay correlates to a LOS designation, as described in the table.

Table 2.16-3
Intersection Levels of Service (LOS)
(seconds per vehicle)

LOS	Description	Signalized Intersection Delay	Unsignalized Intersection Delay
A	Excellent operation. All approaches to the intersection appear quite open, turning movements are easily made, and nearly all drivers find freedom of operation.	< 10	< 10
B	Very good operation. Many drivers begin to feel somewhat restricted within platoons of vehicles. This represents stable flow. An approach to an intersection may occasionally be fully utilized and traffic queues start to form.	>10 and < 20	>10 and < 15
C	Good operation. Occasionally drivers may have to wait more than 60 seconds, and back-ups may develop behind turning vehicles. Most drivers feel somewhat restricted	>20 and < 35	>15 and < 25
D	Fair operation. Cars are sometimes required to wait more than 60 seconds during short peaks. There are no long-standing traffic queues.	>35 and < 55	>25 and < 35
E	Poor operation. Some long-standing vehicular queues develop on critical approaches to intersections.	>55 and < 80	>35 and < 50
F	Forced flow. Represents jammed conditions. Backups form locations downstream or on the cross street may restrict or prevent movement of vehicles out of the intersection approach lanes; therefore, volumes carried are not predictable. Potential for stop and go type traffic flow.	> 80	> 50

Source: Highway Capacity Manual 2010, Transportation Research Board, 2010.
Note: If the volume-to-capacity (v/c) ratio exceeds 1.0, LOS F is assigned an individual lane group for all unsignalized intersections, or minor street approach at two-way stop-controlled intersections. Overall intersection LOS is determined solely by control delay.

Table 2.16-4
Level-of-Service Volumes/Capacity Values
For Various Roadway Classifications
Average Daily Volume @ Upper Limit of Each LOS (Veh.s/Day)[a]

Classification	Typical Lane Configuration	Ac (60%)	Bc (70%)	Cb (80%)	Dc (90%)	Eb (100%)
Collector	2-Lane Undivided	6,000	9,000	12,000	15,000	18,000
Secondary Highway	4-Lane Undivided	10,000	15,000	20,000	25,000	30,000
Major Highway	4-Lane Divided	10,000	17,000	24,000	31,000	38,000
Arterial Highway	6-Lane Divided	17,000	27,500	38,000	48,500	59,000
Freeway	8-Lane Divided	74,000	103,000	132,000	161,000	190,000

[a.] The upper limit of LOS D was assumed as the "design" capacity for Cathedral City. All capacities are based upon improvements to full City standards under optimum operating conditions. Capacity can be significantly reduced by a high pedestrian traffic and vehicle turning movements. Substandard vertical and horizontal alignment or any combination which might restrict sight distance will also reduce capacity.

Cathedral City Intersection Level of Service Standard

According to the current Cathedral City General Plan, the upper level of LOS D is considered acceptable. LOS E or F operations are considered unacceptable. It should be noted that RCTC allows that CMP roadways may operate at LOS E if there are no feasible ways of further improving operational LOS.

Existing Intersection Level of Service

The intersection operations analysis indicates that all of the study area intersections are currently operating at acceptable LOS during the peak hours, with the exception of the following:

- Date Palm Drive/Varner Road (#10) – LOS F PM peak hour only
- Cathedral Canyon Drive/Ramon Road (#14) – LOS E AM and PM peak hours
- Landau Boulevard/Ramon Road (#17) – LOS E AM peak hour only
- Mountain View Road/Varner Road (#20) – LOS F AM peak hour only.

Existing Roadway Segment Levels of Service

As shown in Table 2.16-5 below, four existing roadway segments currently operate at LOS E or F either in the AM or PM peak period. All other roadway segments currently operate at acceptable levels of service. Three of these segments are portions of East Palm Canyon Drive, while the fourth is on Varner Road east of Mountain View Road in the north end of the City.

Table 2.16-5
Existing Conditions Summary
Major Roadways in the Planning Area

Roadway Link	Current ADT	Daily Capacity[a.] (Veh./Day).	Ratio V/C[b.]	Level of Service
U.S Interstate-10				
– W of Indian Canyon Drive	86,000	190,000	0.42	A
– W of Palm Drive	88,000	190,000	0.46	B
– E of Date Palm Drive	94,000	190,000	0.49	B
Gene Autry Trail/Palm Drive				
– N of Interstate-10	29,920	38,000	0.78	D
– S of Interstate-10	31,782	46,000	0.85	E
Mountain View Road				
– N of Varner Road	11,200	18,000	0.62	C
Landau Boulevard				
– N of Ramon Road	19,070	38,000	0.50	C
Cathedral Canyon Drive				
– S of Ramon Road	16,052	38,000	0.42	B
– S of Dinah Shore Drive	19,450	38,000	0.51	C
Date Palm Drive				
– S of Varner Road	8,410	18,000	0.47	B
– N of Vista Chino	32,806	59,000	0.56	C
– N of 30th Avenue	27,295	59,000	0.46	B
– N of Ramon Road	27,250	59,000	0.49	B
– N of Dinah Shore Drive	28,383	38,000	0.46	D
– N of Gerald Ford Drive	25,454	38,000	0.67	D
– N of East Palm Canyon Drive	17,226	38,000	0.45	C

Table 2.16-5
Existing Conditions Summary
Major Roadways in the Planning Area

Roadway Link	Current ADT	Daily Capacity[a.] (Veh./Day).	Ratio V/C[b.]	Level of Service
Da Vall Drive				
– N of Ramon Road	8,704	18,000	0.48	B
– S of Ramon Road	8,014	38,000	0.21	A
Bob Hope Drive				
–N of U.S. I-10	12,983	38,000	0.34	B
–N of Ramon Road	22,023	38,000	0.58	B
Varner Road				
– E of Palm Drive	1,900	18,000	0.11	A
– E of Mountain View Road	16,200	18,000	0.90	**E**
– E of Date Palm Drive	4,753	18,000	0.26	A
Vista Chino				
– W of Landau Boulevard	26,134	38,000	0.69	D
– W of Date Palm Drive	24,370	38,000	0.64	D
30th Avenue				
– W of Date Palm Drive	7,663	18,000	0.42	B
– E of Date Palm Drive	9,402	18,000	0.52	C
Ramon Road				
– W of Landau Boulevard	40,908	59,000	0.69	D
– W of Cathedral Canyon Drive	38,712	59,000	0.66	D
– E of Date Palm Drive	31,058	59,000	0.53	C
– W of Bob Hope Drive	31,064	59,000	0.53	C
Dinah Shore Drive				
– W of Cathedral Canyon Drive	29,053	38,000	0.76	D
– E of Date Palm Drive	22,490	38,000	0.59	C
– W of Bob Hope Drive	20,800	38,000	0.55	C
Gerald Ford Drive				
– E of Date Palm Drive	13,452	30,000	0.45	C
– E of Da Vall Drive	13,862	38,000	0.36	B
Perez Road				
– W of Cathedral Canyon Drive	10,587	30,000	0.35	B
– W of Date Palm Drive	11,570	30,000	0.38	B
East Palm Canyon Drive				
– W of City Limits	45,550	38,000	1.19	**F**
– W of Cathedral Canyon Drive	36,787	38,000	0.97	**E**
– W of Date Palm Drive	42,655	38,000	1.12	**F**
– E of Sungate Way	47,023	59,000	0.80	D

[a] These values represent the current "physical" capacity at the upper limit of LOS E, as shown in Table 2.16-4 entitled "Level-of-Service Volumes/Capacity Values for Various Roadway Classifications."
[b] These values were calculated using the "physical" capacity at the upper limit of LOS E.
Source: "Cathedral City General Plan Transportation Analysis", Urban Crossroads, Inc. 2019

Traffic Signal Warrant Analysis

The signal warrant criteria for existing study area intersections are based upon several factors, including volumes of vehicular and pedestrian traffic, frequency of accidents, and location of school areas. The Project-specific traffic analysis determined that:

- the existing unsignalized intersection of Date Palm/Varner Road (#10) appears to meet traffic signal warrants under existing conditions
- the existing unsignalized intersection of Mountain View Road/Varner Road (#20) almost meets traffic signal warrants under existing conditions. Monitoring of the intersection is recommended to determine if the signal warrant is satisfied as ambient or potential nearby development growth occurs.

Multi-Modal Transportation

CV Link

CV Link is a multi-modal pathway that, at buildout, will extend ±49 miles through 12 Coachella Valley municipal and Tribal jurisdictions from Palm Springs on the west to Coachella on the east. The first segment of CV Link opened in 2018 in Cathedral City; it extends 2.4 miles from Ramon Road to Vista Chino. CV Link accommodates pedestrians, bicyclists, and low-speed electric vehicles and will connect residential, employment, shopping, and entertainment sites. It is intended to relieve traffic congestion on regional roadways, improve air quality, stimulate the economy, and offer safe and healthy recreational and fitness opportunities. Future segments in Cathedral City will connect to Rancho Mirage via the Whitewater River, and Palm Springs via the Tahquitz Creek Wash.[6]

Bicycle, LSEV, and Pedestrian Facilities

Bicycle and low speed electric vehicle (including NEV) facilities include separated paths (Class I), striped lanes (Class II), and shared roadways (Class III). Existing and planned multi-modal facilities are shown on Exhibit 2.16-2, and existing and planned pedestrian facilities are shown on Exhibit 2.16-3.

Transit Service

SunLine Transit Agency provides public transit services in Cathedral City and throughout the Coachella Valley. Buses operate on alternative fuels, including compressed natural gas and hydrogen, and have bike racks that can accommodate two to three bikes per bus. SunDial services are available for seniors and people with disabilities. Bus routes 14, 20, 24, 30, 32, and 111 extend through Cathedral City, and access is provided at numerous bus stops (see Exhibit 2.16-4).

Truck Routes

Truck routes provide access to key commercial and industrial areas. In Cathedral City, they include Varner Road, Edom Hill Road, Date Palm Drive, Bob Hope Drive, Vista Chino, Ramon Road, Perez Road, a section of Cathedral Canyon Drive, and East Palm Canyon Drive. Existing and planned truck routes are shown on Exhibit 2.16-5.

Airports

The Palm Springs International Airport is the largest airport in the Coachella Valley and the nearest to Cathedral City. It is located on East Tahquitz Canyon Way, just west of Gene Autry Trail. The airport is served by ten airlines with non-stop flights to nineteen destinations, including major airport hubs. In 2018, it served 2.3 million passengers with 1.1 million enplanements and 1.1 million deplanements, which represents a ±10% increase over 2017 operations.[7] The airport can also accommodate helicopter flights and includes on-site aircraft rescue and firefighting facilities and equipment.

Railroads

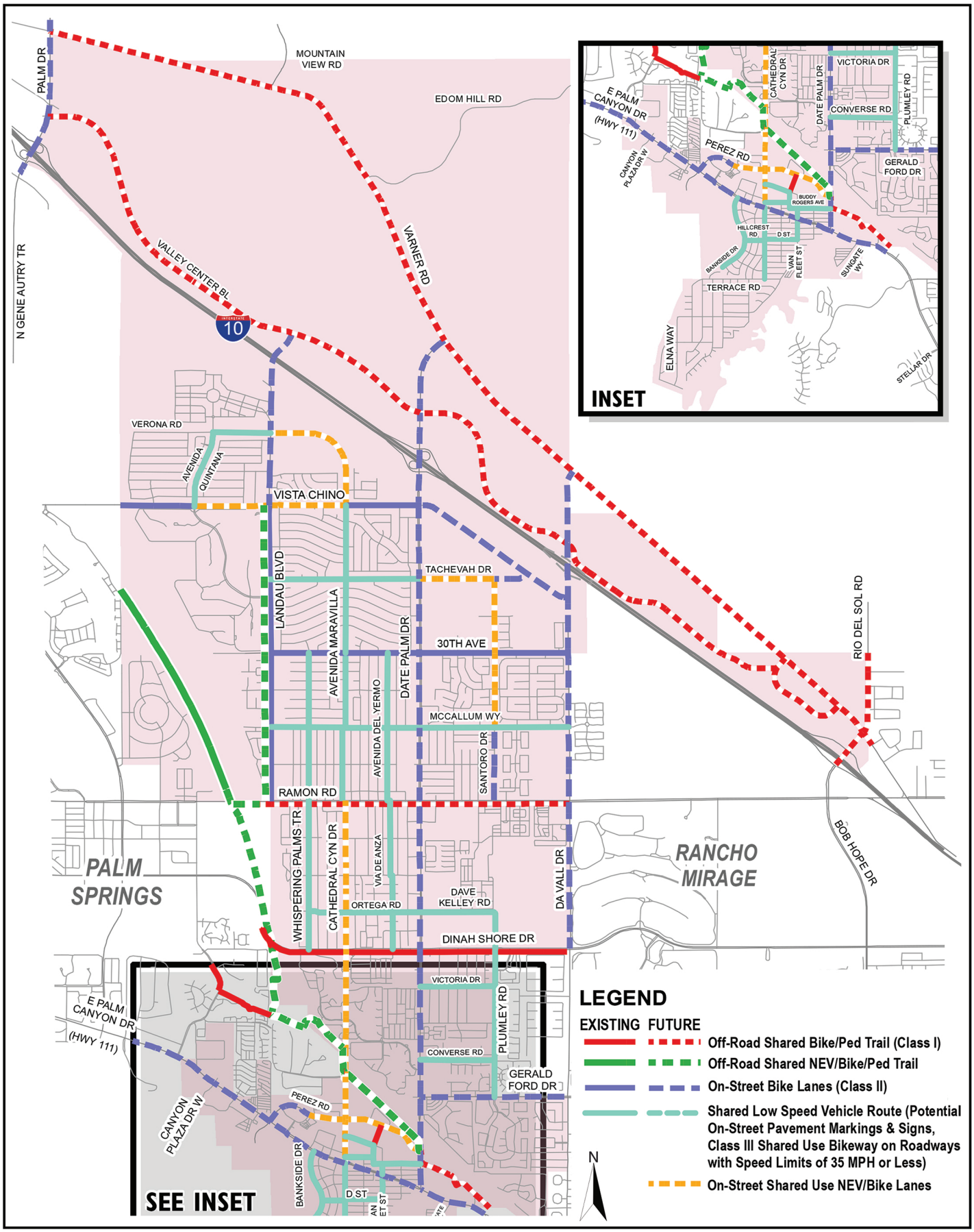
In Cathedral City, rail lines operated by Union Pacific Railroad (UPRR) are located just south of, and parallel to, Interstate-10. The UPRR is a major transcontinental railway carrying extensive freight operations as well as Amtrak passenger trains. This facility carries an average of between 40 and 50 trains per day. Amtrak's Sunset Limited runs between Los Angeles and New Orleans, with a stop at the Palm Springs Train Station on Palm Springs Station Road approximately 3 miles west of Cathedral City. There are no rail spurs or other connections to these rail facilities in the City nor are any anticipated in the future.

6 www.coachellavalleylink.com, accessed April 2019.
7 Palm Springs International Airport Monthly Passenger Activity Report, 2018.

Emergency and All-Weather Access

The City is centrally located in the Coachella Valley and connected to surrounding communities by Interstate-10 and major regional and local arterials, including East Palm Canyon Drive (State Highway 111), Date Palm Drive, Vista Chino, Ramon Road, and Dinah Shore Drive, and others. Land north of I-10 is connected to the rest of Cathedral City via Date Palm Drive, and the communities of North Palm Springs and Thousand Palms via Varner Road. The City Fire and Police Departments are responsible for reviewing development plans to assure adequate emergency access is provided to individual sites.

The Whitewater River is the principal drainage affecting all-weather access in the City. In the northern portions of the City, lands south of the Union Pacific Railroad lines and north US Interstate-10 are affected by only partially managed storm flows emanating from Morongo Canyon and Long Canyon drainages. All-weather access and roadway capacity are also affected by local stormwater runoff, which is frequently conveyed by local streets into dedicated surface and sub-surface stormwater facilities. Areas of inadequate drainage can result in on-road ponding, unsafe conditions, and reduced accessibility and capacity. The City has been implementing a long-term program of bridge construction and flood control that is incrementally reducing areas of the City that could become isolated by major storm events.



Source: Urban Crossroads, 2018

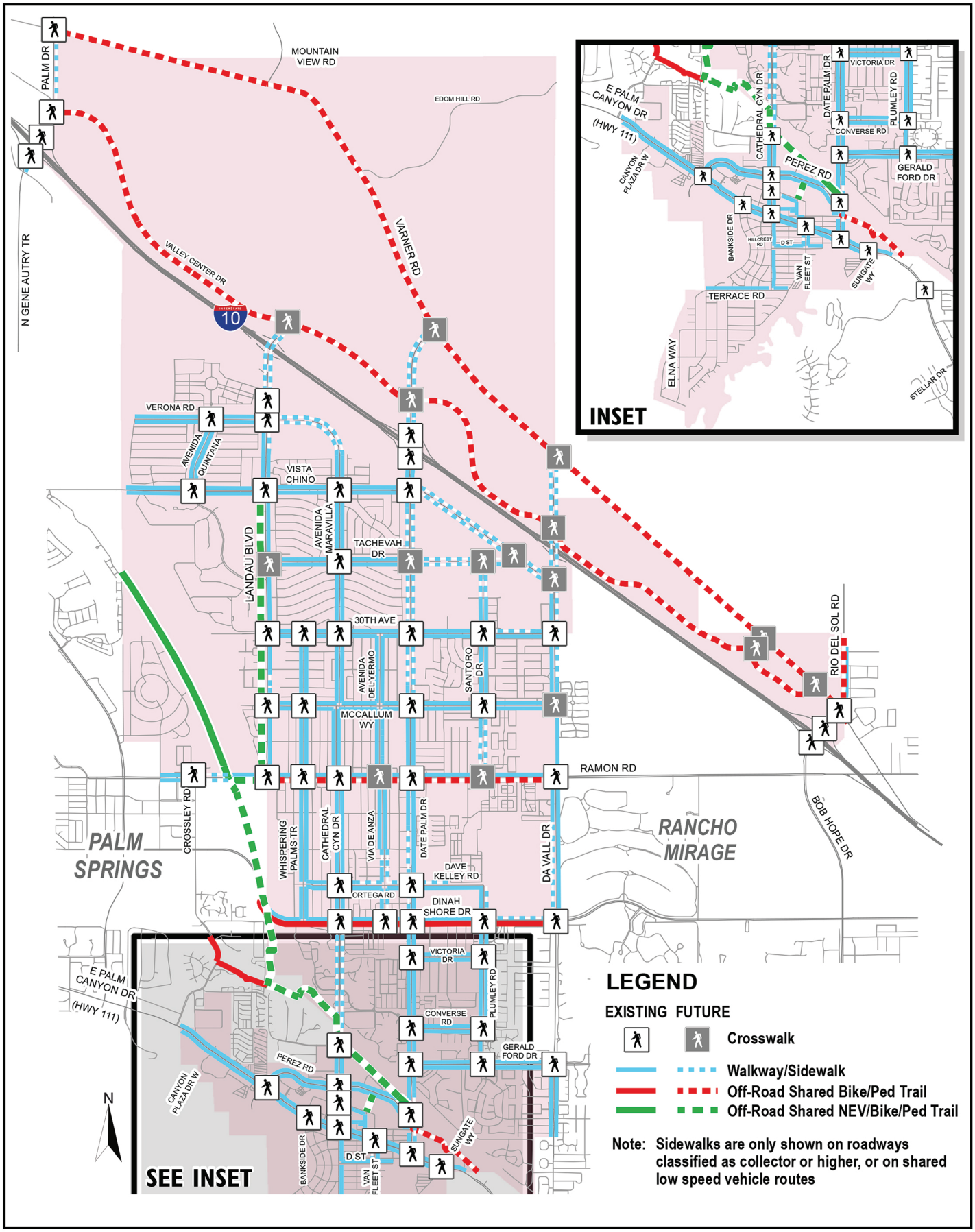
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City of Cathedral City General Plan EIR
Existing and Future Multi-modal Facilities
Cathedral City, California

Cathedral City

Exhibit
2.16-2



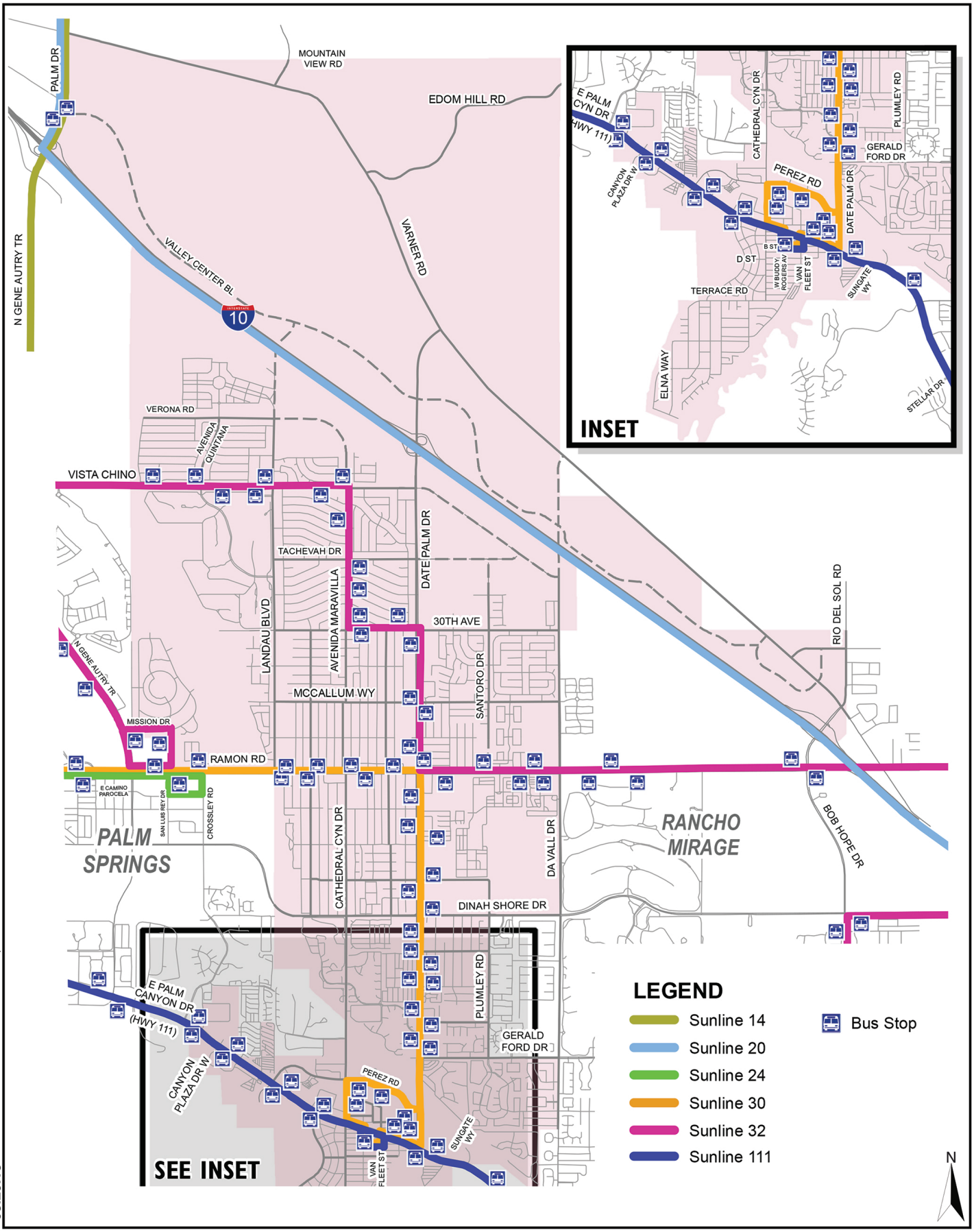
05.03.19 Source: Urban Crossroads, 2019

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City of Cathedral City General Plan EIR
Existing and Future Pedestrian Facilities
Cathedral City, California

Cathedral City

Exhibit
2.16-3



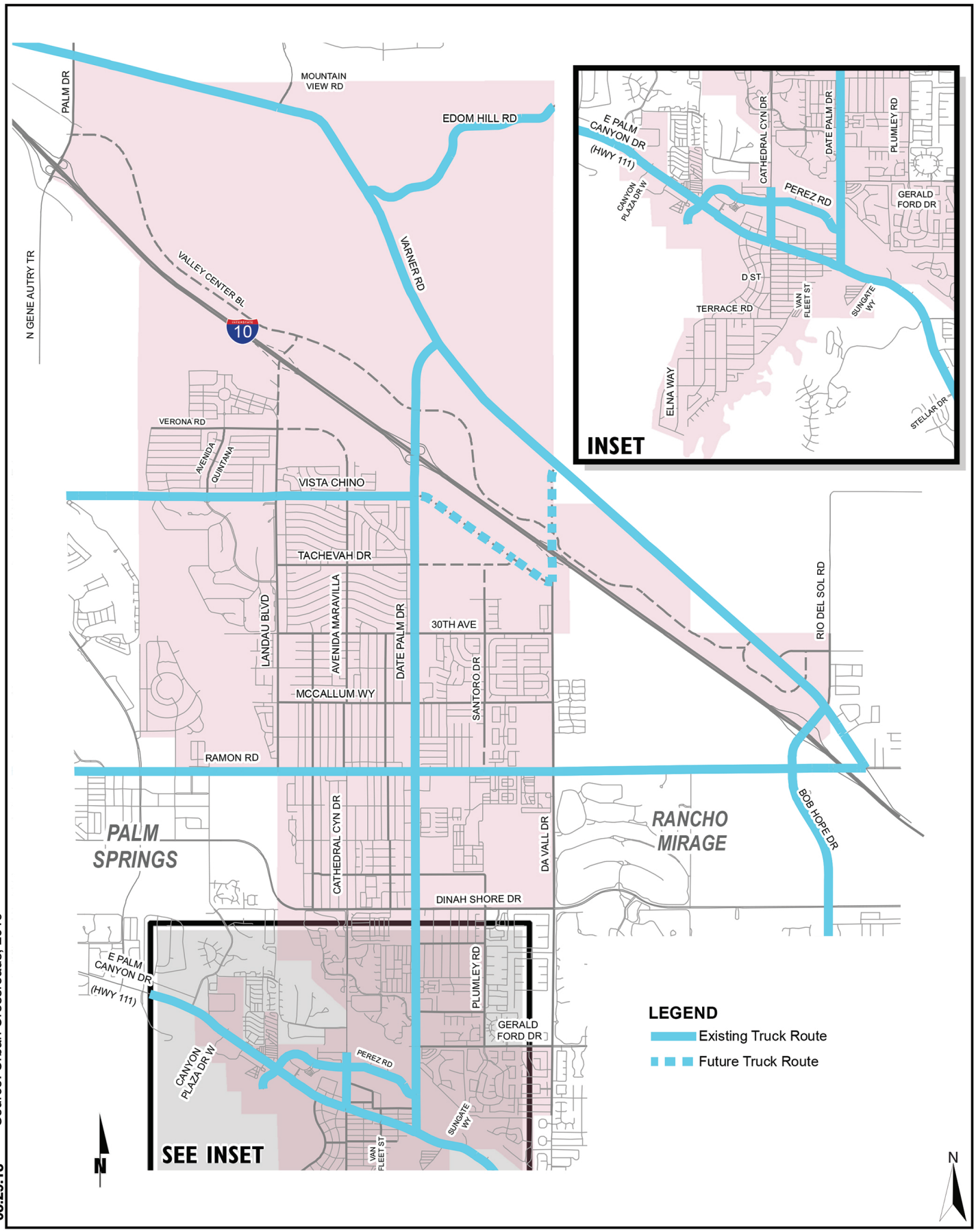
08.29.18 Source: Urban Crossroads, 2018

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City of Cathedral City General Plan EIR
Sunline Transit Routes and Bus Stops (2018)
Cathedral City, California

Cathedral City

Exhibit
2.16-4



08.29.18 Source: Urban Crossroads, 2019

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City of Cathedral City General Plan EIR
Existing and Future Truck Routes
Cathedral City, California

Cathedral City

Exhibit
2.16-5

2.16.6 Project Impacts

As noted in the *Circulation and Mobility Element* and in the General Plan Update *Transportation Analysis*, the Proposed Project makes a major effort to facilitate the implementation of a *Complete Streets* program both through the element and a new *Active Transportation Plan*, which is a part of the Proposed Project. It was not practicable to attempt to quantify the effects that these major multi-modal design and implementation efforts will have on vehicular traffic, trip generation or vehicle miles traveled. Nonetheless, the City has embraced these alternative modes and it is expected that in the mid- and long-term they will have a significant impact on these metrics. Therefore, impacts quantified in the Transportation Analysis and this EIR should be considered conservative.

The Proposed Project would have an adverse impact on transportation systems if it would:

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

As discussed below, both existing conditions and buildout of the General Plan update will result in LOS operating conditions that are unacceptable (LOS E or F). Intersections impacted by the Proposed Project and that will operate at LOS E or F are the same as exists today. Therefore, the Proposed Project will not have a significant impact on these components of the roadway network. In addition, eight (8) roadway segments currently or in the future are also projected to operate at unacceptable levels of service. However, as discussed in the Transportation Analysis prepared for the General Plan update, measures can be implemented in the future that may be able to ensure that these segments do operate at LOS D or better upon General Plan buildout.

City LOS Policy
The current General Plan establishes LOS D as the minimum peak hour system performance standard for the City's circulation network. LOS E or F operations are considered unacceptable. Intersections which operate at LOS E or LOS F require mitigation to provide acceptable (LOS D or better) levels of service.

Traffic projections for General Plan Buildout (2040) are provided in the project-specific Transportation Analysis (Appendix E). They were derived from the Riverside County Transportation Analysis Model (RivTAM), North City Specific Plan (NCSP) traffic analysis, and North City Extended Specific Plan (NCESP) traffic analysis. The RivTAM 2040 Plus TPPS – CVAG Model is consistent with the SCAG draft 2016 RTP for the Transportation Project Prioritization Study (TPPS). It evaluates socio-economic data-based trip generation, trip distribution, mode choice (split), and traffic assignment. It incorporates current (2018) traffic count data, existing traffic estimates, and future forecasts/estimates. Projected weekday ADT for the proposed General Plan Buildout (2040) traffic conditions are shown on Exhibit 2.16-7.

Roadway Classifications

Compared to the currently adopted General Plan, the proposed General Plan Update would result in revised roadway classifications for some roadway segments. Proposed classifications are based on an assessment of current and projected physical roadway conditions and constraints, and a shift to more extensive multi-modal facilities. Proposed roadway classifications are summarized in the following Table 2.16-6. Current classifications are shown on Exhibit 3-7 of Appendix E. Proposed roadway classifications are shown here on Exhibit 2.16-6.

Table 2.16-6
Current vs. Proposed Roadway Classifications

Roadway	Segment	Currently Adopted (2009) General Plan Buildout Roadway Classification	Proposed General Plan Buildout Roadway Classification
Landau Bl.	b/w Verona Rd. & Ramon Rd.	Major Highway	Major Highway (B)
Cathedral Cyn. Dr.	b/w Ramon Rd. & Hwy. 111	Major Highway	Secondary Highway (B)
	s/o Hwy. 111	Major Highway	Collector (A)
Santoro Dr.	b/w Tachevah Dr. & Date Palm Dr.	Secondary Highway	Collector (C)
Varner Rd.	b/w Mountain View Dr. & Date Palm Dr.	Arterial Highway	Arterial Highway (B)
Valley Center Bl.	b/w Palm Dr. & Future Valley Center Bl. (Modified Major Hwy.)	Major Highway	Major Highway (F)
	e/o Future Valley Center Bl. (Modified Major Hwy.)	Major Highway	Major Highway (F)
Verona Rd.	b/w Landau Bl. & Ave. Maravilla	N/A	Collector (C)
Vista Chino	West of Date Palm Dr.	Arterial Highway	Arterial Highway (C)
Tachevah Dr.	b/w Landau Bl. & Date Palm Dr.	N/A	Collector (A)
	East of Date Palm Dr.	Secondary Highway	Collector (C)
30th Av.	b/w Landau Bl. & Da Vall Dr.	Secondary Highway	Secondary Highway (C)
McCallum Wy.	b/w Landau Bl. & Da Vall Dr.	N/A	Collector (A)
Ramon Rd.	Within City limits	Arterial Highway	Arterial Highway (B)
Dinah Shore Dr.	Within City limits	Arterial Highway	Major Highway (E)
Gerald Ford Dr.	b/w Date Palm Dr. & Da Vall Dr.	Major Highway	Major Highway (C)
Perez Rd.	b/w Hwy. 111 & Date Palm Dr.	Major Highway	Major Highway (D)
Edom Hill Rd.	Within City limits	Collector	Industrial Collector

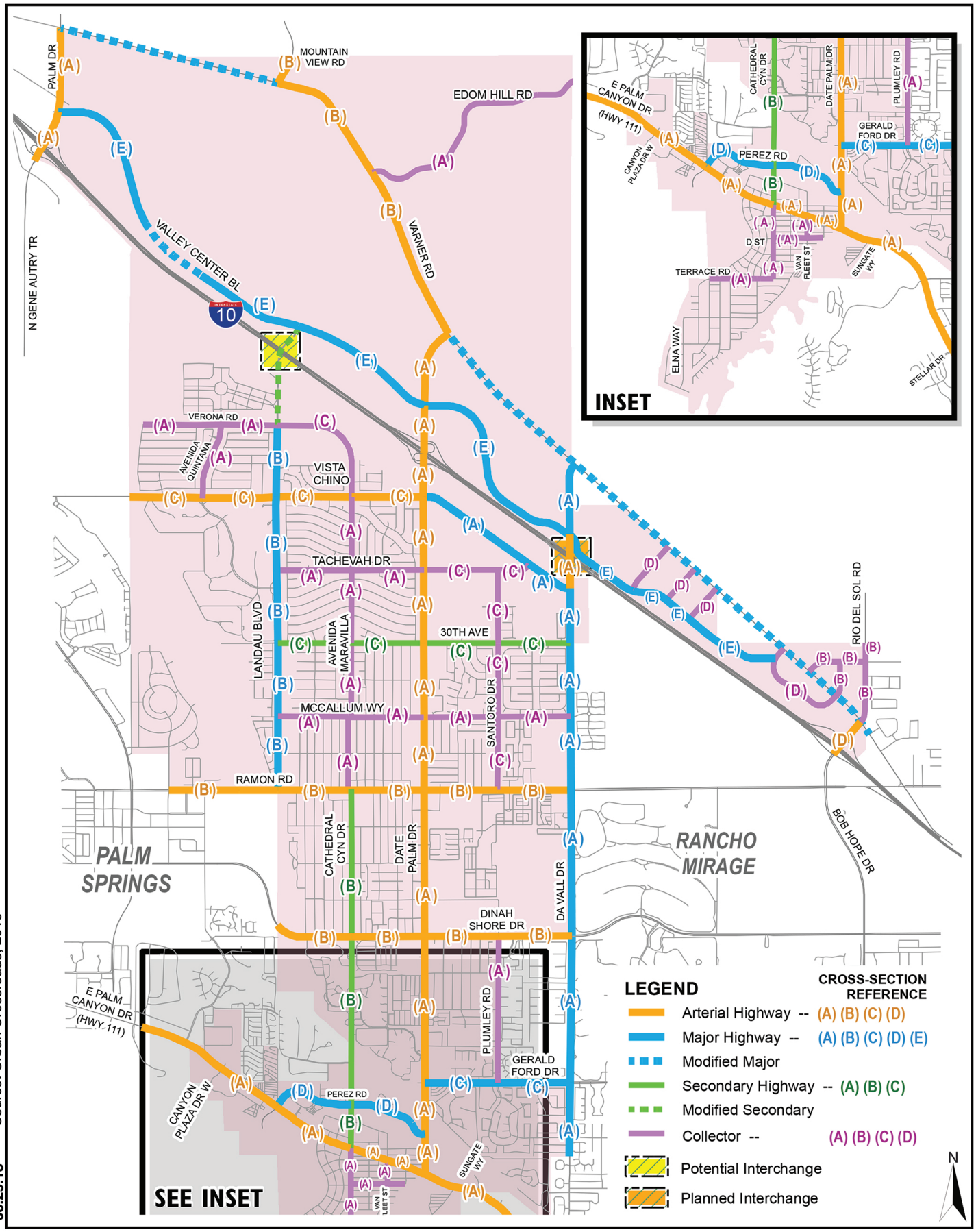
Source: Table 5-2, "Cathedral City General Plan Update Transportation Analysis, Cathedral City, California," Urban Crossroads, February 13, 2019. See Appendix E of this EIR.

The proposed changes account for existing built features, more explicitly show non-automotive accommodations, and provide consistency with adjacent jurisdiction plans. Impacts would be less than significant.

Roadway Cross-Sections

The General Plan Update proposes changes in roadway cross-sections, specifically: 1) the proposed cross-sections explicitly account for bike lanes/shared NEV lanes, 2) the new cross-sections are responsive to Complete Streets and Sustainable Communities strategies which focus on safely serving all transportation users (motorist, delivery services, cyclists, pedestrians, low speed, electric vehicle users, etc.), and 3) current recommendations take into account existing volumes, CVAG volume projections, and previous traffic projections prepared for the North City Specific Plan areas. Previously analyzed network features are retained in undeveloped areas of the City. Current cross-sections are shown in Exhibit 3-8 of Appendix E. Proposed cross-sections are shown herein on Exhibits 5-4, 5-5 and 5-6 of Appendix E.

Proposed changes are more detailed and refined versions of the City's existing cross-sections. They support the City's Complete Streets and Sustainable Communities strategies. Impacts would be less than significant.



Source: Urban Crossroads, 2019

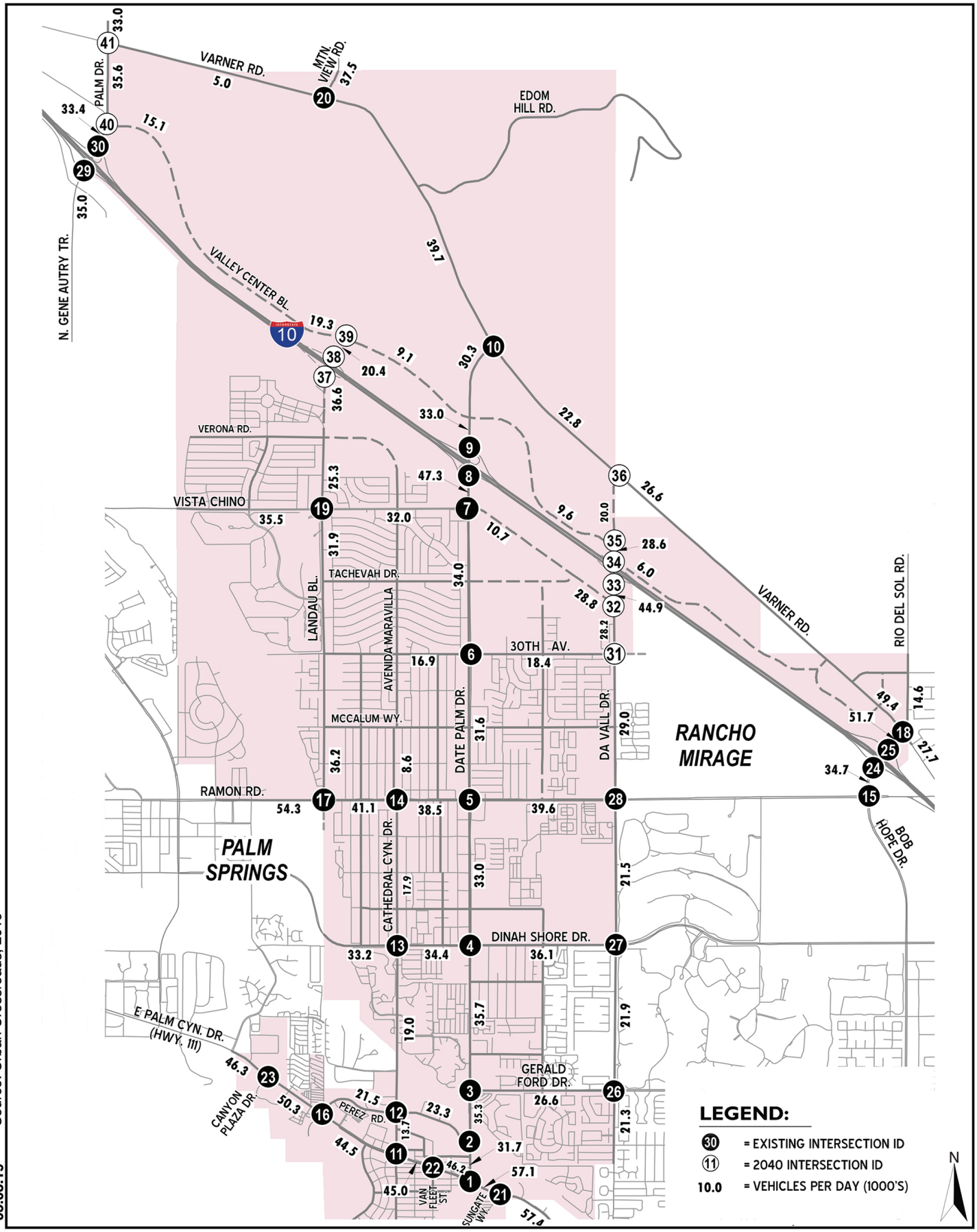
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City of Cathedral City General Plan EIR
Master Roadway Classifications
Cathedral City, California

Cathedral City

Exhibit
2.16-6



Source: Urban Crossroads, 2019

05.03.19

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City of Cathedral City General Plan EIR
2040 Builtout ADT Volumes
Cathedral City, California

Cathedral City

Exhibit
2.16-7

Roadway Segment Analysis

As mentioned above, the currently adopted General Plan establishes LOS D as the minimum peak hour system performance standard for the City's circulation network. Daily roadway segment capacities for each type of roadway are summarized in the following table. These estimates are "rule of thumb" estimates used for planning purposes and can be affected by such factors as intersection, degree of access control, roadway grades, design geometrics, sight distance, vehicle mix, and pedestrian/bicycle traffic.

The project-specific Transportation Analysis (Appendix E) found that all study area roadway segments are projected to operate at an acceptable LOS for proposed General Plan buildout (2040) conditions based on the planning level daily capacity thresholds, with the following exceptions:

Table 2.16-7
General Plan 2040 Segment Deficiencies

Roadway Segment	Future Level of Service
• Landau Boulevard, north of Ramon Road	(LOS E)
• Highway 111, east of Sungate Way	(LOS E)
• Perez Road, west of Date Palm Drive	(LOS F)
• Perez Road, west of Cathedral Canyon Drive	(LOS F)
• Dinah Shore Drive, east of Date Palm Drive	(LOS E)
• Ramon Road, west of Landau Boulevard	(LOS E)
• 30th Avenue, east of Date Palm Drive	(LOS F)
• 30th Avenue, west of Date Palm Drive	(LOS E)

The ADT-based analysis indicated a deficiency (unacceptable LOS) for the segments listed above; therefore, a review of the more detailed peak hour intersection analysis was undertaken in the project-specific Transportation Analysis to account for factors affecting roadway capacity. The results of the intersection analysis are described below.

Intersection Analysis

The project-specific Transportation Analysis (Appendix E) determined that, at buildout of the proposed General Plan, all study area intersections are anticipated to operate at an acceptable LOS during the peak hours, with the following exceptions[8]:

- Cathedral Canyon Drive / Dinah Shore Drive (#13) – LOS E AM peak hour/LOS F PM peak hour
- Cathedral Canyon Drive–Avenida Maravilla / Ramon Road (#14) – LOS F AM and PM peak hours

As shown, the intersections of Cathedral Canyon Drive at Dinah Shore Drive, and Cathedral Canyon Drive–Avenida Maravilla at Ramon Road are anticipated to operate at unacceptable LOS. However, both intersections are also anticipated to operate at unacceptable LOS at buildout of the currently adopted General Plan. Therefore, implementation of the General Plan Update will not result in a worsening of intersection operations compared to the current General Plan. Additionally, the intersection of Cathedral Canyon Drive–Avenida Maravilla at Ramon Road experiences unacceptable operations for existing (2018) conditions.

Both intersections are constrained by existing development and intersection geometry, and no geometry/signalization changes have been identified to improve operations. Sections of Cathedral Canyon Drive (from Dinah Shore Drive to Ramon Road) provide direct access to/from single-family home driveways. Parallel roads to the east and west of Cathedral Canyon Drive provide limited alternative access through residential areas but are discontinuous. Mitigation Measure TRA-1 will allow the City to monitor conditions along Cathedral Canyon Drive from Perez Road to Ramon Road and develop recommendations for improvements, thereby assuring that potential future impacts remain at less than significant levels.

[8] Table 5-4, "Cathedral City General Plan Update Transportation Analysis, Cathedral City, California," Urban Crossroads, February 13, 2019. See Appendix E of this EIR.

Table 2.16-8
Intersection Future (2040) Operating Condition

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (Secs)		Level of Service[2]	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	Date Palm / E. Palm Cyn. Dr. (Hwy 111)	TS	0	0	0	3	0	1>	2	3	0	0	3	1	18.4	41.4	B	D
2	Date Palm / Perez Rd.	TS	1	2	0	0	2	1>	1	0	1	0	0	0	14.0	26.9	B	C
3	Date Palm / Gerald Ford Dr.	TS	1	2	1	1	2	d	1	2	0	1.5	0.5	1	43.7	54.4	D	D
4	Date Palm / Dinah Shore Dr.	TS	2	2	1	2	3	0	2	2	1	1	2	1>	44.4	42.0	D	D
5	Date Palm / Ramon Rd.	TS	2	3	1	1	3	1	2	3	1	1	3	1	45.6	43.2	D	D
6	Date Palm / 30th Av.	TS	2	3	0	2	3	0	1	2	1	1	2	1	48.0	46.4	D	D
7	Date Palm / Vista Chino	TS	2	3	0	1	2	2>	2	1	1>	1	2	1	54.0	39.8	D	D
8	Date Palm / I-10 EB Ramps	TS	0	3	1>>	0	3	1>>	1	1!	1	0	0	0	27.5	6.9	C	A
9	Date Palm / I-10 WB Ramps	TS	0	3	1>>	0	3	1>>	0	0	0	1	1!	1	14.8	14.7	B	B
10	Date Palm / Varner Rd.	TS	2	0	1	0	0	0	0	1	1>	1	1	0	34.8	45.5	C	D
11	Cathedral Cyn. Dr./E. Palm Cyn. Dr. (Hwy 111)	TS	1	1	1	1	1	1>	1	2	1	1	3	1	31.3	43.1	C	D
12	Cathedral Cyn. Dr. / Perez Rd.	TS	1	2	0	1	2	0	1	1	1	1	1	1	39.2	54.8	D	D
13	Cathedral Cyn. Dr. / Dinah Shore Dr.	TS	1	2	0	1	2	0	1	2	0	1	2	0	**65.4**	**>80**	**E**	**F**
14	Cathedral Cyn. Dr. - Avenida Maravilla/Ramon Rd.	TS	1.5	0.5	1>	0.5	0.5	1>	1	3	0	1	3	0	**>80**	**>80**	**F**	**F**
15	Bob Hope Dr. / Ramon Rd.	TS	2	3	1>>	2	3	1>>	2	3	1>	2	3	1	48.3	39.8	D	D
16	Perez Rd. / E. Palm Cyn. Dr. (Hwy 111)	TS	1	1	0	1	0.5	1.5>	2	3	0	1	2	1	28.3	38.9	C	D
17	Landau Bl. / Ramon Rd.	TS	1	1	0	2	0.5	1.5	2	3	0	1	3	1>	45.3	49.0	D	D
18	Bob Hope Dr. / Varner Rd.	TS	2	2	1>>	2	3	1	2	2	2>>	2	2	0	54.4	44.2	D	D
19	Landau Bl. / Vista Chino	TS	2	2	0	2	2	0	1	2	1>	1	2	1>	54.7	45.6	D	D
20	Mountain View Rd. / Varner Rd.	TS	0	0	0	2	0	1	0	1	0	0	1	2	42.4	38.0	D	D
21	Sungate Wy./E. Palm Cyn. Dr. (Hwy 111)	TS	1	1	0	0.5	0.5	1	1	2	1	1	3	0	18.0	34.0	B	C
22	Van Fleet St. / E. Palm Cyn. Dr. (Hwy 111)	TS	0.5	0.5	1	1	1	0	1	2	1	1	2	1	16.7	39.7	B	D
23	Canyon Plaza Dr. / E. Palm Cyn. Dr. (Hwy 111)	TS	0.5	0.5	d	0.5	1.5	0	1	2	1	1	2	1	33.4	52.6	C	D
24	Bob Hope Dr. / I-10 EB Ramps	TS	0	2.5	1.5	2	3	0	1	1!	1	0	0	0	28.4	31.1	C	C
25	Bob Hope Dr. / I-10 WB Ramps	TS	2	3	0	0	3	1	0	0	0	1.5	0.5	1>>	13.5	45.0	B	D
26	Da Vall Dr. / Gerald Ford Dr.	TS	2	2	1	2	2	1	2	2	1	2	2	1	34.3	36.6	C	D
27	Da Vall Dr. / Dinah Shore Dr.	TS	2	2	1	2	2	1	2	2	1	2	2	1	36.6	39.0	D	D
28	Da Vall Dr. / Ramon Rd.	TS	2	2	1	2	2	1	2	3	1>	2	3	1>	42.8	46.1	D	D
29	Gene Autry Tr. / I-10 EB Ramps	TS	0	3	1>>	0	3	1>>	1	1!	1	0	0	0	6.7	5.8	A	A

Table 2.16-8
Intersection Future (2040) Operating Condition

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (Secs)		Level of Service[2]	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
30	Gene Autry Tr.-Palm Dr. / I-10 WB Ramps	TS	0	3	1>>	0	3	1>>	0	0	0	1	1!	1	16.0	10.2	B	B
31	Da Vall Dr. / 30th Av.	**TS**	**1**	**2**	0	**1**	**2**	0	1	1	d	0.5	0.5	d	29.2	54.3	C	D
32	Da Vall Dr. / Vista Chino	**TS**	**1**	**2**	0	0	**2**	**1>**	**2**	0	**1**	0	0	0	25.7	44.7	C	D
33	Da Vall Dr. / I-10 SB Ramps	**TS**	0	**2**	**2**	**1**	**2**	**0**	0	**1!**	**1**	0	0	0	54.8	20.1	D	C
34	Da Vall Dr. / I-10 NB Ramps	**TS**	**2**	**2**	0	0	**2**	**1**	0	0	0	**2**	0	**1**	34.1	46.3	C	D
35	Da Vall Dr. / Valley Center Bl.	**TS**	**2**	**2**	0	**1**	**2**	0	**1**	**2**	**1**	**1**	**2**	0	17.7	20.2	B	C
36	Da Vall Dr. / Varner Rd.	**TS**	**1**	**1!**	**1**	0	0	0	0	**2**	0	**1**	**2**	**0**	43.0	53.0	D	D
37	Landau Bl. / I-10 SB Ramps	**TS**	0	**3**	***1***	**1**	**3**	0	**0.5**	**0.5**	**1**	0	0	0	53.8	54.4	D	D
38	Landau Bl. / I-10 NB Ramps	**TS**	**1**	**3**	0	0	**3**	0	0	0	0	**0.5**	**0.5**	**1**	48.9	54.2	D	D
39	Landau Bl. / Valley Center Bl.	**TS**	**1**	0	**1**	0	0	0	0	**2**	**1>**	**1**	**2**	0	13.6	23.4	B	C
40	Palm Dr. / Valley Center Bl.	TS	1	2	**1**	**2**	2	0	**1**	**2**	0	1	**1**	**1**	29.8	31.3	C	C
41	Palm Dr. / Varner Rd.	TS	1	2	0	1	2	0	**1**	1	0	**1**	1	0	40.2	30.1	D	C

1. When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
   L = Left; T = Through; R = Right; 1! = Shared Left/Through/Right Lane; 0.5 = Shared Lane; > = Right-Turn Overlap Phasing;
   >> = Free-Right Turn Lane; d= Defacto Right Turn Lane; 1 = Lane Improvement; 1 = Lane Configuration Change in comparison to Adopted Improvements
2. Per the Highway Capacity Manual 6th Edition (HCM6), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control.
   For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
   Delay and level of service is calculated using Synchro 10.1 analysis software.
   BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).
3. TS = Traffic Signal

R:\UXRjobs_11100-11500\11326\Excel\[11326 - LOS Results - values.xlsx]2040 Proposed

Alternative Transportation Plans

The 2016 CVAG Active Transportation Plan (ATP) envisioned bicycle and pedestrian facilities in Cathedral City and elsewhere in the valley. The 2014 CVAG NEV Plan provided a future NEV route concept. The proposed Cathedral City Active Transportation Plan (ATP) (Appendix F) was developed as part of the General Plan Update Circulation and Mobility Element and is shown on Exhibit 2.16-2. It builds upon the bicycle, pedestrian, and NEV facilities identified in the CVAG plans. It includes bikeways, pedestrian facilities, and 2-lane shared low-speed electric vehicle routes that provide neighborhood-to-neighborhood interconnections for all modes of travel. The City ATP also provides bicycle and pedestrian connections to transit routes to enhance connectivity for all users and attract additional transit users.

The following table compares the CVAG ATP and proposed City ATP. The City ATP uses slightly different terminology, classifies two (2) roadway segments that were not previously classified, and introduces the shared low-speed electric vehicle route described above. However, the City ATP plan concept and general location of facilities complement those set forth in the CVAG ATP, which would remain largely unchanged. Impacts of the proposed General Plan update, including the City ATP, would be less than significant.

Table 2.16-9
Current vs. Proposed Active Transportation Plans

Roadway	Segment	CVAG ATP	CCGP ATP
Landau Bl.	s/o Vista Chino	Bike lane	Bike lanes and off-road NEV/bike/ped trail
Cathedral Cyn Dr.	b/w Ramon Rd. & Dinah Shore Dr.	Bike/NEV lane	On-street bike lanes
	b/w Dinah Shore Dr. & Whitewater River	Multipurpose NEV path	On-street bike lanes
	b/w Whitewater River & E. Palm Canyon Dr.	Bike/NEV path	On-street bike lanes
Date Palm Dr.	s/o Ramon Rd.	Buffered bike/NEV lane	On-street bike lanes
Plumley Rd.	s/o Dinah Shore Dr.	Bike path	Shared low speed vehicle route
Varner Rd.	b/w Palm Dr. & Bob Hope Dr.	Bike lane	Off-road ped/bike trail
Valley Center Bl.	b/w Palm Dr. & Da Vall Dr.	Bike lane	Off-road ped/bike trail
	DaVall Dr. & Bob Hope Dr.	Unclassified	Off-road ped/bike trail
Vista Chino	East of Date Palm Dr.	Unclassified	On-street bike lanes
McCallum Wy.	b/w Landau & Da Vall Dr.	Bike lane	Shared low speed vehicle route
Ramon Rd.	Within City limits	Colored bike lane	Off-road ped/bike trail
Dinah Shore Dr.	Within City limits	Greenback sharrows	Off-road ped/bike trail
Perez Rd.	b/w Hwy. 111 & Date Palm Dr.	Bike lane	On-street NEV/bike lanes

Source: Table 2-1, "Cathedral City General Plan Update Transportation Analysis, Cathedral City, California," Urban Crossroads, February 13, 2019. See Appendix E of this EIR.

The proposed General Plan Circulation and Mobility Element includes goals and policies that support the comprehensive planning and use of multi-modal transportation facilities. Policy 1 requires that the City's circulation and mobility network assures the provision of safe and efficient vehicular, pedestrian, bicycle, and LSEV access to a full range of land uses. Policy 2 requires that transit stops and pedestrian, bicycle, and LSEV paths be sited in conformance with proposed roadway classifications and the City ATP, and that standards be applied in a manner that encourages the use of alternative modes of transportation. These concepts are integral components of the sustainable communities strategies identified in SCAG's RTP/SCS, as well as CVAG's ATP and NEV Plans. Other than the refinements described above, the proposed General Plan update would not conflict with these plans. Impacts would be less than significant.

Therefore, with mitigation, the General Plan Update is expected to have a less than significant impact on programs, plans, ordinances, or policies addressing the circulation system.

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

CEQA Guidelines Section 15064.3 states that, generally, vehicle miles traveled (VMT) is the most appropriate measure of transportation impacts. VMT refers to the amount and distance of automobile travel attributable to a project. Section 15064.3(b) establishes criteria for analyzing transportation impacts as they pertain to VMT. For land use projects, *"vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact."* For transportation projects, those that reduce or have no impact on vehicle miles traveled should be presumed to cause a less than significant transportation impact. A lead agency may use models or other methods to analyze a project's VMT quantitatively or qualitatively.

The focus on VMTs is to reduce and shorten vehicular trips and encourage land development that supports non-motorized modes of travel, including walking, biking, and low-speed electric vehicles (LSEV). Building housing near services, transportation options, and jobs typically increases the use of the multi-modal transportation system and reduces VMTs and associated greenhouse gas (GHG) emissions.

The Project-specific Transportation Analysis (Appendix E) uses the RivTAM model to estimate VMT at buildout of the proposed General Plan and compares it to estimated VMT at buildout of the currently adopted General Plan. It does not factor in the potential trip-reducing effects of the proposed *Active Transportation Plan* or the General Plan's emphasis on a shift to more multi-modal transportation. VMT analysis takes into account land use patterns and trip generation, as well as the interaction of these trips within the City and between the City and surrounding areas. Future trip generation projections were based on the proposed General Plan land use map and by Traffic Analysis Zones (TAZ); there are 42 RivTAM TAZs representing Cathedral City. Trip generation rates for future land use scenarios are generally based on the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 10th edition, 2017*. The Transportation Analysis determined that buildout of the currently adopted General Plan is projected to generate 1,059,205 daily trips.[9] In comparison, buildout of the proposed General Plan is projected to generate 1,052,619 daily trips.[10] This represents a decrease of 6,586 daily trips compared to the currently adopted General Plan.

VMT estimates for the currently adopted General Plan and proposed General Plan are summarized in the following Table 2.16-10.

Table 2.16-10
Current and Proposed General Plan VMT

General Plan Buildout (2040) Scenario	Daily VMT	VMT / Service Population	VMT / Trip
Currently Adopted General Plan	7,346,153	27.86	6.94
Proposed General Plan	7,257,944	26.21	6.90

9 Table 4-2, "Cathedral City General Plan Update Transportation Analysis, Cathedral City, California," Urban Crossroads, Inc., February 13, 2019.
10 Table 4-3, Ibid.

As shown, approximately 7,346,153 VMT per day are projected at buildout of the currently adopted General Plan, and approximately 7,257,944 VMT per day are projected at buildout of the proposed General Plan. Therefore, implementation of the proposed General Plan is projected to result in a reduction of 88,209 VMT per day (1.2% reduction) compared to the currently adopted General Plan. The decrease is due to a reduction in trip generation, combined with a shift in the relationship between residential and non-residential uses. Again, this VMT analysis does not account for the trip and VMT-reducing effects of implementing the *Active Transportation Plan* or the policies and programs sets forth in the updated *Circulation and Mobility Element.*

In the context of CEQA Guidelines Section 15064.3(b), described above, the proposed General Plan Update is neither a land use nor a transportation project. Rather, it is a broad-based policy document that addresses land use, transportation, and a wide range of other community issues. As described, Section 15064.3(b) suggests several methods for evaluating a Project's significance, including:

- Does the Project's VMT exceed an applicable threshold of significance? The City does not have an applicable VMT threshold with which to compare VMTs projected at General Plan buildout, although the Proposed General Plan does result in a net reduction in trips and VMTs when compared to the current General Plan.

- Is the Project within one-half mile of an existing major transit stop or stop along an existing high-quality transit corridor? The City is well-served by existing transit services, including six (6) bus routes and more than 50 stops along high-quality transit corridors like East Palm Canyon Drive, Ramon Road, Vista Chino, and Date Palm Drive (see Exhibit 2.16-4). The proposed General Plan will require the City to continue to work closely with SunLine Transit Agency to assure the transit system adequately serves future populations, including expansion of services to future development north of I-10 where service is currently limited due to undeveloped conditions.

- Does the Project decrease VMT in the project area compared to existing conditions? The Project-specific Transportation Analysis does not compare Project VMT to existing levels of urban development in the City. However, the Proposed General Plan does result in a net reduction in trips and VMTs when compared to buildout of the current General Plan. The proposed General Plan is a long-range (20-year) plan that facilitates new development and growth in the City, and additional VMT can be expected to occur in conjunction with population growth. However, the proposed General Plan will decrease VMT in the project area compared to the currently adopted General Plan by approximately 1.2% due to reduced trip generation and a shift in the relationship between residential and non-residential uses.

The proposed General Plan Circulation and Mobility Element includes policies and programs that will serve to further reduce VMTs city-wide. Policy 1 requires that the circulation network be planned and developed to provide efficient vehicular, pedestrian, bicycle, and LSEV access to residential, employment, shopping, and recreational land uses. Policy 2 requires that transit stops and multi-modal paths be sited in a manner that encourages their use and provides convenient access to various land uses. Per Program 5.A, the City shall encourage developers to incorporate Complete Streets design concepts and alternative street designs into mixed-use developments. Policy 11 requires the City's coordination with Sunline Transit Agency on the expansion of routes, facilities, and ridership and the use of the most energy-efficient and least polluting technologies.

Additionally, a Complete Streets design is a fundamental component of the City's Active Transportation Plan (2019), which was developed concurrently and will be adopted with the General Plan Update; it complements the General Plan Circulation and Mobility Element. It accommodates pedestrian, bicycle, and LSEV travel on various networks of sidewalks, bike and LSEV (including NEV) lanes, and off-street paths, and accessible transit stops. These features will contribute to overall reductions in VMTs, vehicle trip lengths, vehicular delays, and GHG emissions.

Based on the projected decrease in VMT compared to the currently adopted General Plan, proposed circulation and mobility policies that will contribute to reduced VMTs, anticipated long-term continuation of high-quality transit service throughout the City, and implementation of Complete Streets concepts provided in the City's Active Transportation Plan, the proposed General Plan Update will not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b). Impacts will be less than significant.

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

The proposed General Plan Update would have a less than significant impact on safety hazards resulting from geometric design features or incompatible uses. As a policy document, the General Plan Update sets forth a broad, long-range vision for the future development of the City. Its land use plan seeks to maximize land use compatibility to the greatest extent possible, especially on currently undeveloped lands north of I-10 with the integration of residential development and employment centers. Commercial lands are largely located along major arterials and designated truck routes, and industrial lands are planned close to I-10 and the railroad to maximize truck and rail access and minimize potential conflicts with residential traffic. Vehicular incompatibilities associated with farm equipment are not expected in the planning area because the City does not contain farmland.

As developments are proposed, specific roadway design and improvements will be reviewed by city staff and other agencies, such as Caltrans, as appropriate, to assure that no sharp curves, dangerous intersections, or other features that could substantially increase hazards are built. Similar reviews will be conducted for the planned interchange at I-10/Da Vall Drive and a potential interchange at I-10/Landau Blvd, should they be constructed in the future. Additionally, Policy 4 of the General Plan Update Circulation and Mobility Element requires development proposals that may generate traffic volumes or other impacts beyond the scope of the General Plan analysis to conduct project-specific traffic studies to assure that project impacts are adequately mitigated.

Implementation of the Circulation and Mobility Element and the Active Transportation Plan will expand the City's multi-modal network, including building off of the backbone created by the CV Link project. These plans have been developed in a manner consistent with Complete Streets and applies the best available safety design standards and guidelines to ensure that the resulting mix of vehicular and multi-model modes will be integrated in such a manner that maximizes roadways safety for all users. Circulation and Mobility Element Policies 1, 2, 5, 6 and 7 all serve to ensure a safe and compatible mix of transportation modes for all users. Therefore, the Proposed Project will not substantially increase hazards due to geometric or other design features or from incompatible uses .

d) Result in inadequate emergency access.

The General Plan Update does not propose any land use designations or physical improvements that would result in inadequate emergency access. It would, however, facilitate new urban development, which could potentially affect emergency access during and after construction. Much of the new development could occur north of I-10, which is currently vacant and contains few roads. As currently required, the City Fire and Police Departments and other agencies, as appropriate, will continue to review plans and inspect sites of new development projects to assure that adequate emergency access is provided, including but not limited to adequate vehicular access and turn-around spaces, fire lanes, signage, secondary access points, and access to gated and locked entrances. In addition, the General Plan Emergency Preparedness Sub-Element addresses the need to identify, establish, and maintain city-wide emergency access and evacuation routes (Program 2.B, Policy 3, Program 3.A).

Implementation of these General Plan policies and programs, as well as standard City requirements, will ensure that the proposed General Plan Update will have a less than significant impact on emergency access.

2.16.7 Mitigation Measures

TM-1 Cathedral Canyon Drive from Perez Road to Ramon Road shall be identified as a special study corridor for transportation/mobility. The City shall study this corridor and monitor its operations on an ongoing basis to develop recommendations for improvements. Specific tasks shall involve identifying the corridor's strengths, weaknesses, and opportunities for improvements. Recommendations should balance the needs to improve mobility, safety, parking, and the area's appearance.

TM-2 The Public Works Department shall establish and implement a prioritized roadway and intersection study and analysis program to assure the provision of adequate future rights-of-way and facilities at critical roadways and intersections. This program may be incorporated into the five-year Capital Improvements Program, which should be reviewed and amended, as necessary, annually.

TM-3 A planning and engineering project review checklist will be developed, which addresses all major roadway components and ensures compliance with the provisions of the Circulation and Mobility Element and the Active Transportation Plan. The checklist will be used in reviewing development proposals.

TM-4 Identified roadway segments and intersections with the potential to operate at LOS E or worse at General Plan buildout shall be designated as "Special Study Zones" where detailed analysis shall be conducted to minimize further degradation of operating conditions at these locations and to ensure that they operate at acceptable LOS at General Plan buildout.

TM-5 The City shall encourage and if necessary require developers to explore alternative designs of streets and other transportation facilities by providing, as appropriate, information on Complete Streets design concepts and standards that may meet basic performance and safety needs, while still being responsive to the New Urbanism principles.

TM-6 The City shall apply to all development plans the adopted roadway classifications, and implement the Active Transportation Plan to maximize walking, bicycling, and use of LSEVs, and assure safe and efficient connections to City-wide and regional multi-modal facilities.

TM-7 When initiating review of development proposals, the City shall consult and coordinate with SunLine and solicit comments and suggestions on bus stops and other public transit facilities and design concepts, including enhanced handicapped access, that should be integrated into project designs.

2.16.8 Significance After Mitigation

With adherence to the mitigation program, the Proposed Project will have a less than significant adverse impact on local and regional transportation facilities, programs and plans. It will not conflict or be inconsistent with VMT standards as established in CEQA Guidelines Section 15064.3(b), will not result in any substantial design hazards or incompatibilities and will not result in inadequate emergency access in the planning area. .

2.16.9 Cumulative Impacts

Impacts of the proposed General Plan Update on local and regional transportation systems were evaluated using the Riverside County Transportation Analysis Model (RivTAM), which takes into consideration the cumulative growth of adjacent cities and unincorporated County areas. The Project-specific Transportation Analysis indicates that the Project would result in a lower level of impacts in terms of trips and VMTs generated compared to the currently adopted General Plan. The Proposed Project will not contribute to cumulatively considerable impacts to local or regional programs and plans, will not result in any additional design hazards or incompatibilities and will not result in inadequate emergency access in the planning area. Therefore, it would not contribute to any cumulatively considerable impacts related to transportation and traffic.

Cathedral City

City of Cathedral City General Plan DRAFT ENVIRONMENTAL IMPACT REPORT

3. PROJECT ALTERNATIVES ANALYSIS

3.1 Introduction

Introduction

Section 3: Project Alternatives Analysis of this DEIR presents the alternatives to the Proposed Project, including the No Project (current General Plan) alternative. CEQA Guidelines Section15126.6 requires that an EIR describe and evaluate the comparative merits of a range of alternatives to the Project that could feasibly attain all or most of the objectives of the Project, but would avoid or substantially lessen any significant adverse effects of the Project. An EIR is not required to 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. The CEQA Guidelines further state that the specific alternative of "No Project" shall also be evaluated. The alternatives evaluated in this DEIR were identified based on input from City residents and property owners, public agencies and other stakeholders. The alternatives were selected in consideration of one or more of the following factors:

- Extent to which the alternative would accomplish all or most of the basic objectives of the project;
- Extent to which the alternative would avoid or lessen any of the identified significant adverse environmental effects of the project;
- Feasibility of the alternative, taking into account site/geographic suitability, economic viability, constructability, and consistency with regulatory requirements; and
- Appropriateness of the alternative in contributing to a reasonable range of alternatives necessary to permit a reasoned choice by decision-makers.

While Section 2 describes existing conditions and analyzes a range of potential project impacts and mitigation measures associated with the proposed General Plan, Section 3 of the EIR addresses the potential impacts associated with various project alternatives. Public Resources Code Section 21002.1 and CEQA Guidelines Section 15126.6 provide specific guidance on the need for alternatives to a Proposed Project. CEQA does not require that every potential alternative to a project be analyzed. Rather, an EIR must consider potentially feasible alternatives that meet most or all of the basic objectives of the Proposed Project and avoid or substantially reduce the significant environmental impacts of the Proposed Project. CEQA further requires that the analysis of alternatives contain sufficient information to allow for "meaningful evaluation, analysis and comparison with the Proposed Project."

Finally, a No Project alternative must be considered, in order to allow decision makers to assess the impacts of approving the Proposed Project versus not approving it.
This section describes and analyzes the potential impacts of three potentially feasible alternatives: 1) Alternative 1: More Intense Alternative, 2) Alternative 2: Less Intense Alternative, and 3) No Project Alternative (Guidelines, Section 15126(3)). The No Project Alternative considers impacts associated with continued implementation of the current General Plan.

Section 2 of this EIR assessed impacts related to the following resource topics:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality and Greenhouse Gases
- Biological Resources
- Cultural and Tribal Cultural Resources
- Energy and Mineral Resources
- Geology and Soils
- Hazards, Wildfires, and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Parks and Recreational Resources
- Population, Housing and Socio-Economic Resources
- Public Utilities and Service Systems
- Transportation

To provide a basis for comparison with the proposed General Plan, the same analysis categories are considered in this section for each alternative. Where mitigation is required for an alternative and the same mitigation measure required for the proposed General Plan Update in Section 2 applies, a reference to the appropriate Section 2 mitigation measure is made. Where additional mitigation measures are required for an alternative, the alternative-specific mitigation measures are listed in this section.

3.1.1 Statement of Project Objectives

Pursuant to CEQA Guidelines Section 15124(b), the project description includes a statement of objectives to assist the City in developing a reasonable range of alternatives to evaluate in this EIR. These objectives are intended to explain the purpose of the project and to aid decision-makers in preparing findings or a statement of overriding considerations, if necessary.

The City has identified the following list of criteria as the project objectives.

A. An updated General Plan that ensures that associated City ordinances, including the Zoning and Subdivision Ordinances, are maintained in conformance with the General Plan

B. The continued use of Specific Plans as a preferred method of detailed and systematic implementation of the General Plan for large or complex planning areas

C. The periodic examination and review of the long-term implications of General Plan policies and programs as they relate to the City's ability to provide public services and facilities

D. A cooperative planning process with Riverside County, assuring an effective advisory role regarding any and all development and other land use planning issues or proposals within or in close proximity to the City's Sphere-of-Influence

E. A General Plan that assures that properly filed development applications shall be processed in an expeditious and timely manner

F. Master facilities plans that address the recreation, drainage/flood control, infrastructure, utility management, traffic control, and other facility needs of the community

G. In-fill development within already urbanized areas of the corporate boundaries of the City

H. Expansion of new development that is logically phased and, as appropriate, guided by the development of existing and new Specific Plans

I. Ensure opportunities for review and comment on development proposals through public hearing notices sent to owners of property located at least within 300 feet of development proposal sites

J. Cooperative public/private ventures and partnerships that better provide public services and facilities that benefit the community

3.1.2 Summary of Alternatives

3.1.3 Alternative 1: More Intense Alternative

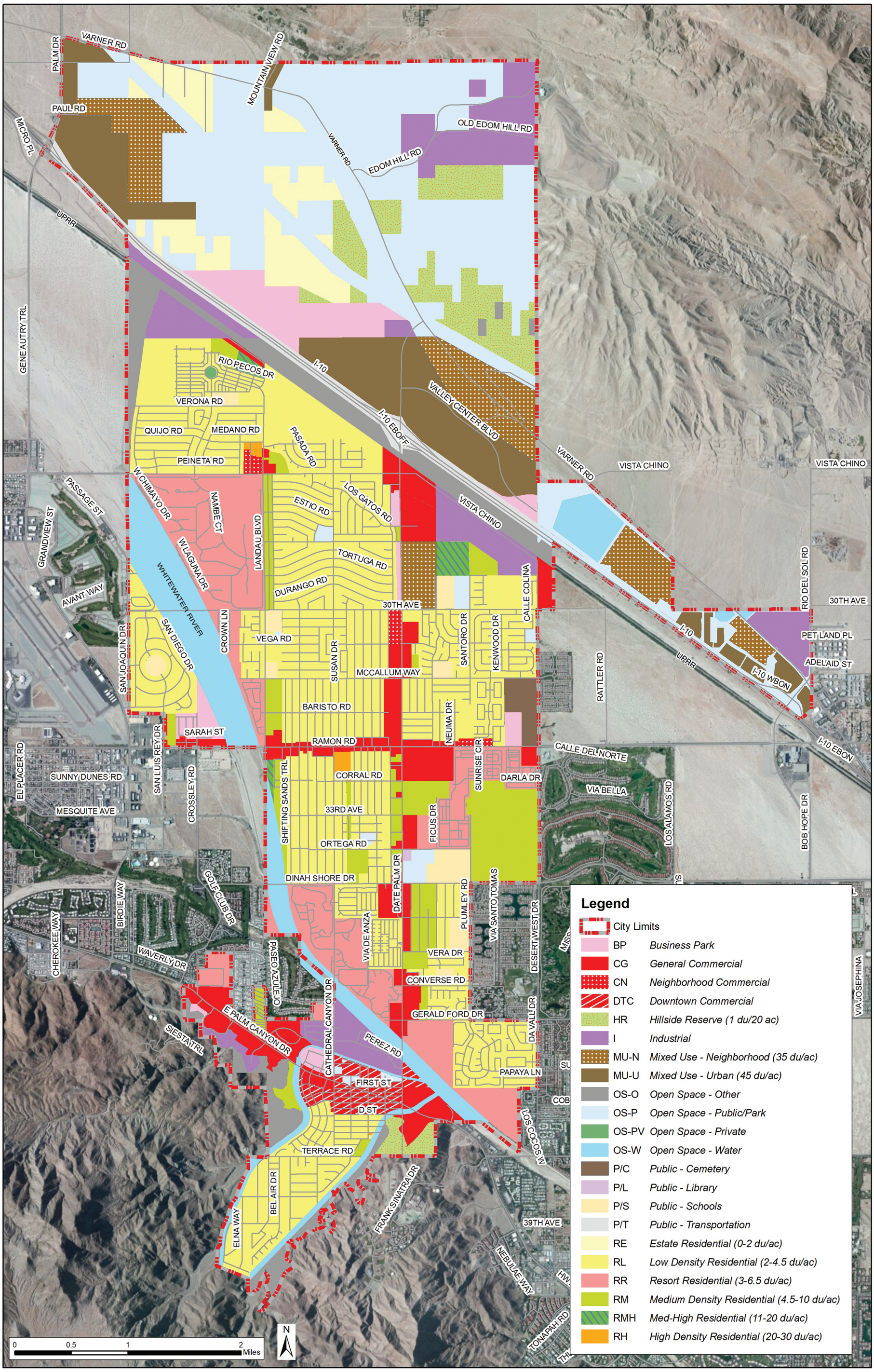
Alternative 1: More Intense Alternative proposes a General Plan update with the same General Plan Elements, goals, policies, and programs as the Proposed Project, but with land use assignments that in some instances intensify the land use pattern of the City, compared to the Proposed Project or the current General Plan. For instance, Alternative 1 increases residential densities for the RH (Residential High Density) from a maximum of 24 units per acre to up to 30 units per acre. No other intensification of land use designations are considered in this alternative.

Alternative 1 also increases development intensities on several vacant parcels south of I-10. Specifically, Alternative 1 proposes increased residential densities on vacant land northeast of Dinah Shore Drive and Plumley Road, and northeast of 30th Avenue and Date Palm Drive. Additionally, whereas the proposed General Plan assigns Industrial land uses northeast of 30th Avenue and Date Palm Drive, Alternative 1 proposes less Industrial and more General Commercial land uses.

Whereas the proposed General Plan proposes Business Park uses near the southwest boundary of the City, Alternative 1 proposes Industrial uses. These lands are designated General Commercial on the current General Plan. Several smaller scattered parcels are also proposed for higher intensity uses. Land use designations north of I-10 are the same for the current and proposed General Plans , and in Alternative 1, consistent with the approved North City Specific Plan and North City Extended Specific Plan.

Although more intense land use designations increase the development potential of land, they can also increase traffic, the potential consumption of resources, such as water and electricity, and the need for infrastructure and public services, such as roads and schools.

Section 3.4, below, analyzes the potential environmental impacts of Alternative 1 and compares them with potential impacts of the current and proposed General Plan, and the Less Intense Alternative 2 scenario.. The Alternative 1 land use map is shown on Exhibit 3-1, and the land use table is provided in Table 3-1.



05.22.19 Source: City of Cathedral City General Plan, 2009; ESRI 2019, City of Cathedral City and Terra Nova Planning & Research, 2019.

TERRA NOVA®
PLANNING & RESEARCH, INC.

City of Cathedral City General Plan EIR
Land Use Alternative 1 - More Intense
Cathedral City, California

Cathedral City

Exhibit
3-1

Table 3-1 Cathedral City General Plan (Alternative 1) Land Use Table

Land Use Category	ROW Acres	Land Use Acres	Total Acres	Vacant	Percentage Vacant Lands	Developed	Percentage Developed Lands	Total	Percentage	Existing SF/Units	Potential SF/Units	Build out SF/Units
Residential												
Hillside Reserve (1du/20ac)	1.76	457.29	459.05	451.23	98.67%	6.06	1.33%	457.29	3.52%	0	23	**23**
Estate Residential (0-2du/ac)	6.92	421.86	428.78	421.27	99.86%	0.59	0.14%	421.86	3.25%	1	632	**633**
Low Density Residential (2-4.5du/ac)	803.30	3125.92	3929.22	744.57	23.82%	2381.35	76.18%	3125.92	24.05%	11,841	2,513	**14,354**
Resort Residential (3-6.5du/ac)	47.43	1102.45	1149.88	707.72	64.19%	394.74	35.81%	1102.45	8.48%	5,153	3,450	**8,603**
Medium Density Residential (4.5-10 du/ac)	38.73	622.92	661.65	374.31	60.09%	248.61	39.91%	622.92	4.79%	4,224	2,807	**7,031**
Medium-High Density Res. (11-20du/ac)	0.52	60.18	60.70	60.18	100.00%	0.00	0.00%	60.18	0.46%	-	903	**903**
High Density Residential (20-30du/ac)	2.44	38.34	40.78	38.34	100.00%	0.00	0.00%	38.34	0.29%	-	863	**863**
Mixed Use - Neighborhood (35du/ac)	9.24	241.85	251.09	241.85	100.00%	0.00	0.00%	241.85	1.86%	-	7,195	**7,195**
Mixed Use - Urban (45du/ac)	29.86	482.50	512.36	475.68	98.59%	6.82	1.41%	482.50	3.71%		18,195	**18,195**
Total Residential Acreage	**940.20**	**6553.31**	**7493.51**	**3515.14**	**53.64%**	**3038.17**	**46.36%**	**6553.31**	**50.41%**	**21,219**	**36,580**	**57,799**
Commercial												
Neighborhood Commercial	5.62	33.35	38.97	21.56	64.64%	11.79	35.36%	33.35	0.26%	113,011	206,589	**319,600**
General Commercial	132.34	614.61	746.95	248.12	40.37%	366.49	59.63%	614.61	4.73%	3,516,986	2,377,784	**5,894,770**
Downtown Commercial	40.58	90.34	130.92	37.65	41.68%	52.69	58.32%	90.34	0.69%	504,910	360,836	**865,746**
Mixed Use - Neighborhood	13.87	362.78	376.65	362.78	100.00%	0.00	0.00%	362.78	2.79%	-	3,476,593	**3,476,593**
Mixed Use - Urban	19.90	321.67	341.57	317.12	98.59%	4.55	1.41%	321.67	2.47%	43,600	3,039,027	**3,082,628**
Total Commercial Acreage	**212.31**	**1422.75**	**1635.06**	**987.23**	**69.39%**	**435.52**	**30.61%**	**1422.75**	**10.95%**	**4,178,508**	**9,460,830**	**13,639,337**
Industrial												
Industrial	26.20	770.15	796.35	697.17	90.52%	72.98	9.48%	770.15	5.92%	1,080,870	10,325,359	**11,406,230**
Business Park	17.85	381.21	399.06	304.47	79.87%	76.74	20.13%	381.21	2.93%	1,136,603	4,509,269	**5,645,873**
Total Industrial Acreage	**44.05**	**1151.36**	**1195.41**	**1001.64**	**87.00%**	**149.72**	**13.00%**	**1151.36**	**8.86%**	**2,217,474**	**14,834,628**	**17,052,102**
Open Space												
Open Space - Other	10.73	528.60	539.33	499.68	94.53%	28.92	5.47%	528.60	4.07%	N/A	N/A	**N/A**
Open Space - Public	148.33	2303.24	2451.57	2303.24	100.00%	0.00	0.00%	2303.24	17.72%	N/A	N/A	**N/A**
Open Space - Water	8.56	772.77	781.33	477.32	61.77%	295.45	38.23%	772.77	5.94%	N/A	N/A	**N/A**
Total Open Space Acreage	**167.62**	**3604.61**	**3772.23**	**3280.24**	**91.00%**	**324.37**	**9.00%**	**3604.61**	**27.73%**	**N/A**	**N/A**	**N/A**
Public												
Cemetery	4.64	55.74	60.38	0.00	0.00%	55.74	100.00%	55.74	0.43%	N/A	N/A	**N/A**
Library	0.77	2.80	3.57	0.00	0.00%	2.80	100.00%	2.80	0.02%	N/A	N/A	**N/A**
Schools	7.29	149.38	156.67	0.00	0.00%	149.38	100.00%	149.38	1.15%	N/A	N/A	**N/A**
Transportation	181.20	58.97	240.17	0.00	0.00%	58.97	100.00%	58.97	0.45%	N/A	N/A	**N/A**
Total Public Acreage	**193.90**	**266.89**	**460.79**	**0.00**	**0.00%**	**266.89**	**100.00%**	**266.89**	**2.05%**	**N/A**	**N/A**	**N/A**
Totals	**1558.08**	**12998.92**	**14557.00**	**8784.25**	**67.58%**	**4214.67**	**32.42%**	**12998.92**	**100.00%**			

*Existing and future conditions of Mixed-Use, Commercial, and Industrial land uses are calculated using the following assumptions: residential development is assumed to occur at 75% of the maximum density permitted, 22% lot coverage for commercial and mixed-use development, and 34% lot coverage for industrial development. Mixed-use Neighborhood is developed as 60% commercial and 40% residential. Mixed-use Urban is developed as 60% residential and 40% commercial. Updated 5.30.19

3.1.4 Alternative 2: Less Intense Alternative

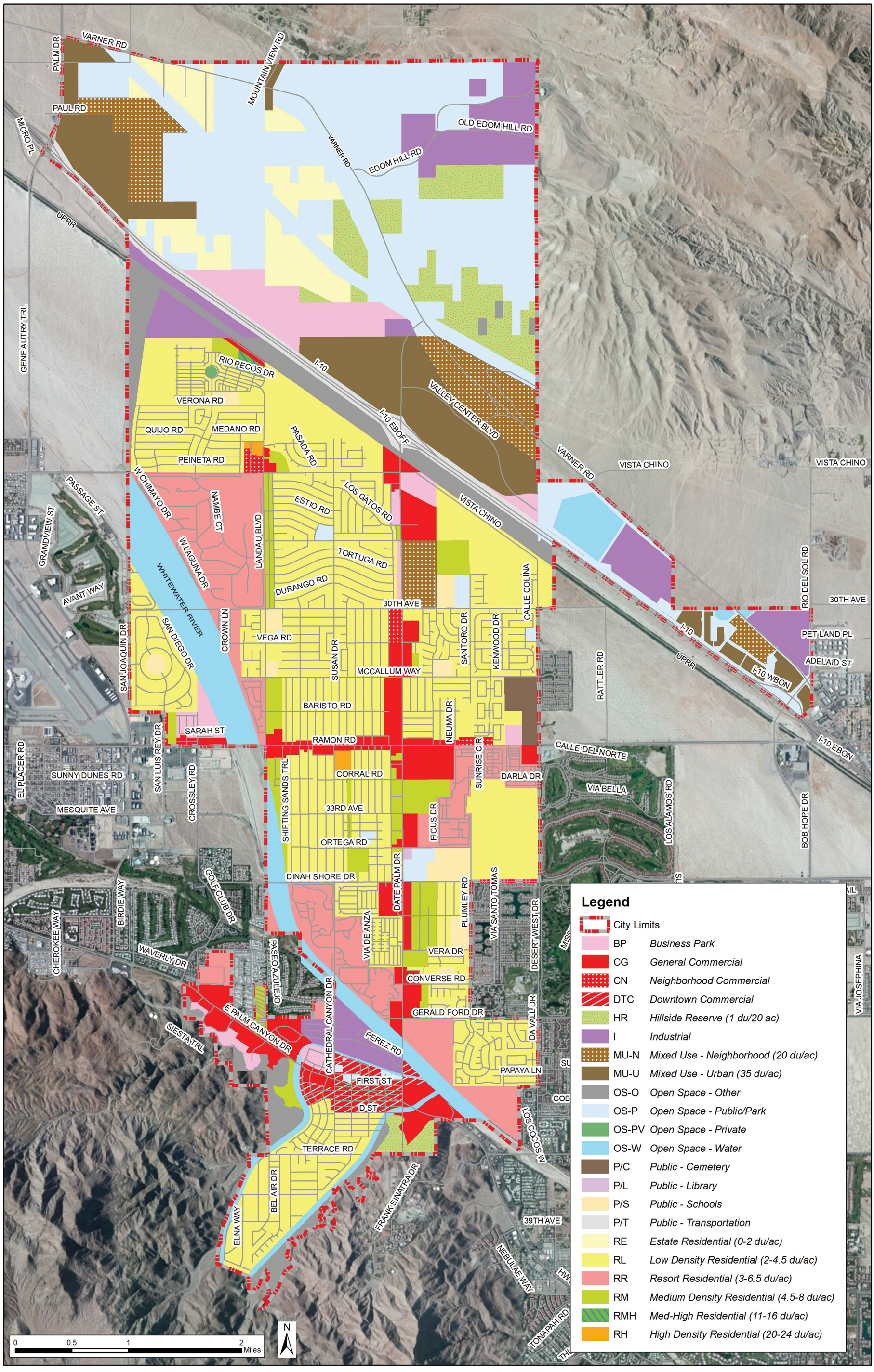
Alternative 2: Less Intense Alternative proposes a General Plan update with the same General Plan Elements, goals, policies, and programs as the proposed Project, but with a less intense land use plan than the proposed Project. This alternative also reduced the maximum allowable density in Residential Medium density from 10 to 8 units per acre and reduced the Residential Medium High density from 20 to 16 units per acre.

Alternative 2 decreases the development intensity on several vacant parcels south of I-10. Specifically, where the proposed General Plan designates land for Medium Density Residential and Industrial northeast of 30th Avenue and Date Palm Drive, Alternative 2 designates it for Low Density Residential uses. Where the proposed General Plan designates land northeast of Dinah Shore Drive and Plumley Road for Resort Residential uses, Alternative 2 designates it for Low Density Residential. A few parcels designated General Commercial on Date Palm Drive between Ramon Road and Dinah Shore Drive are re-designated to Residential Medium, and returns all lands between the Union Pacific Railroad lines and Interstate-10 to Open Space-Other.

Land use designations north of I-10 are the same under both alternatives and North City Specific Plan and North City Extended Specific Plan, with the exception of a portion of the North City Extended Specific Plan east of Da Vall Drive (extended) re-designated from Mix-Use Neighborhood to Industrial.

Lower density land uses generally consume fewer resources and require less infrastructure and public services. However, they may not fully maximize the development potential of a parcel.

The potential environmental impacts of Alternative 2 are analyzed in Section 3.4, below, and compared to the potential impacts of the proposed General Plan that were analyzed in Section 2 of this EIR. The Alternative 2 land use map is shown on Exhibit 3-2, and the land use table is provided in Table 3-2.



05.22.19 Source: City of Cathedral City General Plan, 2009; ESRI 2019, City of Cathedral Ciity and Terra Nova Planning & Research, 2019.

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City of Cathedral City General Plan EIR
Land Use Alternative 2 - Less Intense
Cathedral City, California

Cathedral City

Exhibit

3-2

Table 3-2 Cathedral City General Plan (Alternative 2) Land Use Table

Land Use Category	ROW Acres	Land Use Acres	Total Acres	Vacant	Percentage of Vacant Lands	Developed	Percentage of Developed Lands	Total	Percentage	Existing SF/Units	Potential SF/Units	Build out SF/Units
Residential												
Hillside Reserve (1du/20ac)	1.76	457.29	459.05	451.23	98.67%	6.06	1.33%	457.29	3.52%	0	23	**23**
Estate Residential (0-2du/ac)	6.92	421.86	428.78	421.27	99.86%	0.59	0.14%	421.86	3.25%	1	632	**633**
Low Density Residential (2-4.5du/ac)	803.30	3554.00	4357.30	1172.65	33.00%	2381.35	67.00%	3554.00	27.34%	11,841	3,958	**15,799**
Resort Residential (3-6.5du/ac)	47.43	1105.96	1153.39	711.23	64.31%	394.74	35.69%	1105.96	8.51%	5,153	3,467	**8,620**
Medium Density Residential (4.5-8du/ac)	38.73	407.75	446.48	159.14	39.03%	248.61	60.97%	407.75	3.14%	4,224	955	**5,179**
Medium-High Density Res. (11-16du/ac)	0.52	14.15	14.67	14.15	100.00%	0.00	0.00%	14.15	0.11%	-	170	**170**
High Density Residential (20-24du/ac)	2.44	38.00	40.44	38.00	100.00%	0.00	0.00%	38.00	0.29%	-	684	**684**
Mixed Use - Neighborhood (20du/ac)	9.24	120.46	129.70	120.46	100.00%	0.00	0.00%	120.46	0.93%	-	2,048	**2,048**
Mixed Use - Urban (35du/ac)	29.86	482.49	512.35	475.67	98.59%	6.82	1.41%	482.49	3.71%		14,151	**14,151**
Total Residential Acreage	**940.20**	**6601.96**	**7542.16**	**3563.79**	**53.98%**	**3038.17**	**46.02%**	**6601.96**	**50.79%**	**21,219**	**26,087**	**47,306**
Commercial												
Neighborhood Commercial	5.62	33.35	38.97	21.56	64.64%	11.79	35.36%	33.35	0.26%	113,011	206,589	**319,600**
General Commercial	132.33	553.57	685.90	187.08	33.80%	366.49	66.20%	553.57	4.26%	3,516,986	1,792,825	**5,309,812**
Downtown Commercial	40.58	90.35	130.93	37.66	41.69%	52.69	58.31%	90.35	0.70%	504,910	360,932	**865,842**
Mixed Use - Neighborhood	13.87	371.26	385.13	371.26	100.00%	0.00	0.00%	371.26	2.86%	-	3,557,859	**3,557,859**
Mixed Use - Urban	19.91	321.67	341.58	317.12	98.59%	4.55	1.41%	321.67	2.47%	43,600	3,039,027	**3,082,628**
Total Commercial Acreage	**212.31**	**1370.20**	**1582.51**	**934.68**	**68.21%**	**435.52**	**31.79%**	**1370.20**	**10.54%**	**4,178,508**	**8,957,233**	**13,135,740**
Industrial												
Industrial	26.20	726.94	753.14	653.96	89.96%	72.98	10.04%	726.94	5.59%	1,080,870	9,685,402	**10,766,272**
Business Park	17.85	425.67	443.52	348.93	81.97%	76.74	18.03%	425.67	3.27%	1,136,603	5,167,740	**6,304,343**
Total Industrial Acreage	**44.05**	**1152.61**	**1196.66**	**1002.89**	**87.01%**	**149.72**	**12.99%**	**1152.61**	**8.87%**	**2,217,474**	**14,853,141**	**17,070,615**
Open Space												
Open Space - Other	10.64	528.69	539.33	499.77	94.53%	28.92	5.47%	528.69	4.07%	N/A	N/A	**N/A**
Open Space - Public	145.53	2308.69	2454.22	2308.69	100.00%	0.00	0.00%	2308.69	17.76%	N/A	N/A	**N/A**
Open Space - Water	11.45	769.88	781.33	474.43	61.62%	295.45	38.38%	769.88	5.92%	N/A	N/A	**N/A**
Total Open Space Acreage	**167.62**	**3607.26**	**3774.88**	**3282.89**	**91.01%**	**324.37**	**8.99%**	**3607.26**	**27.75%**	**N/A**	**N/A**	**N/A**
Public												
Cemetery	4.64	55.74	60.38	0.00	0.00%	55.74	100.00%	55.74	0.43%	N/A	N/A	**N/A**
Library	0.77	2.80	3.57	0.00	0.00%	2.80	100.00%	2.80	0.02%	N/A	N/A	**N/A**
Schools	7.29	149.38	156.67	0.00	0.00%	149.38	100.00%	149.38	1.15%	N/A	N/A	**N/A**
Transportation	181.20	58.97	240.17	0.00	0.00%	58.97	100.00%	58.97	0.45%	N/A	N/A	**N/A**
Total Public Acreage	**193.90**	**266.89**	**460.79**	**0.00**	**0.00%**	**266.89**	**100.00%**	**266.89**	**2.05%**	**N/A**	**N/A**	**N/A**
Totals	**1558.08**	**12998.92**	**14557.00**	**8784.25**	**67.58%**	**4214.67**	**32.42%**	**12998.92**	**100.00%**			

*Existing and future conditions of Mixed-Use, Commercial, and Industrial land uses are calculated using the following assumptions: residential development is assumed to occur at 75% of the maximum density permitted, 22% lot coverage for commercial and mixed-use development, and 34% lot coverage for industrial development. Mixed-Use Neighborhood is developed as 60% commercial and 40% residential. Mixed-use Urban is developed as 60% residential and 40% commercial. Updated 5.30.19

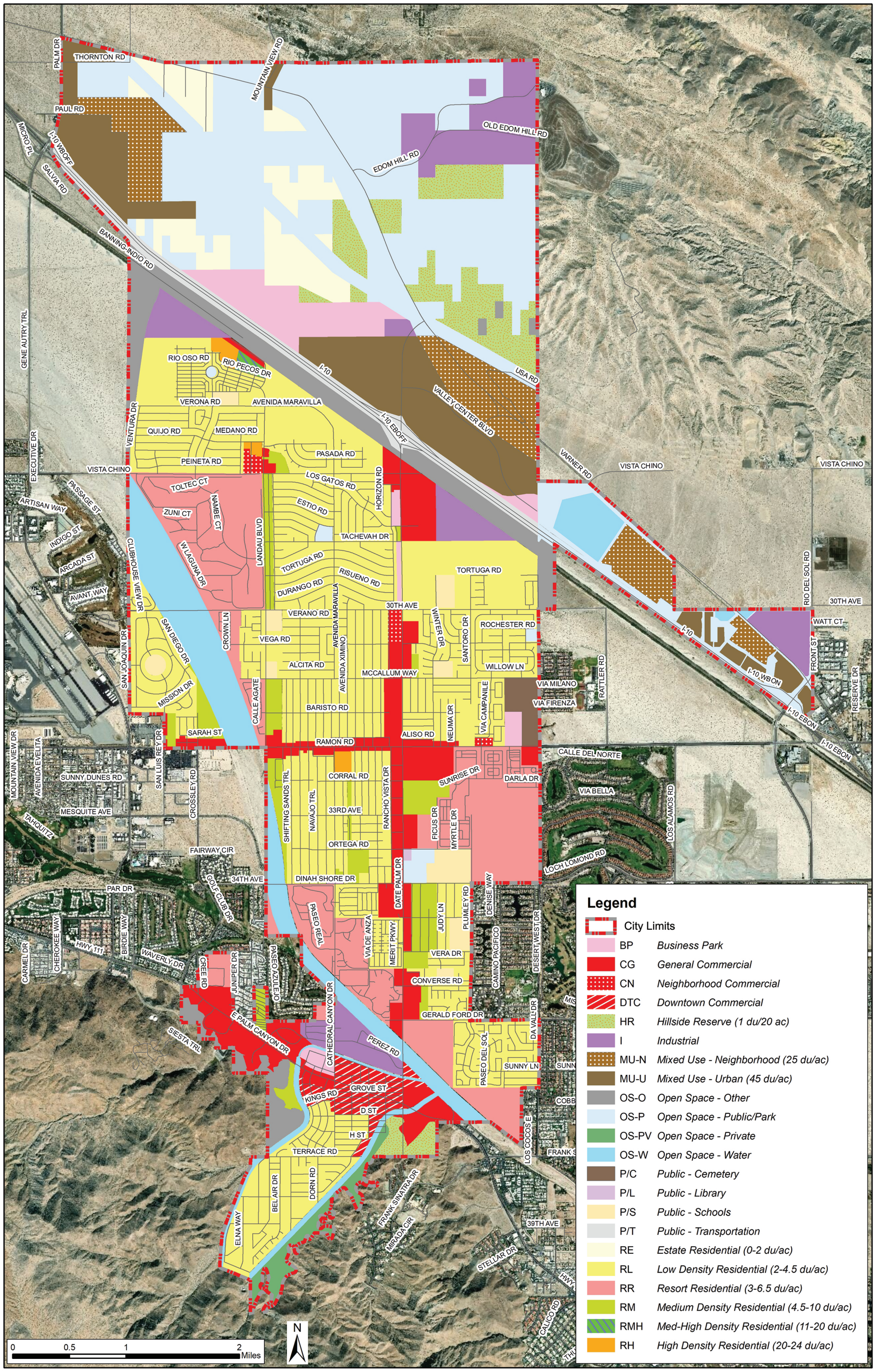
3.1.5 Alternative 3: No Project Alternative

The No Project Alternative (Alternative 3) represents the continued implementation of the current Cathedral City General Plan, adopted in 2002 and amended in 2009, including its land use map, General Plan elements, and goals, policies, and programs. No update to goals, policies, or programs would occur.

Whereas the proposed General Plan land use plan designates vacant parcels northeast of 30th Avenue and Date Palm Drive for a variety of commercial, industrial, and residential uses, the current General Plan designates a substantial portion of it Residential Low for low-density residential uses. It also maintains the limited Industrial and the substantial General Commercial designations in this area, and leaves the lands south of the railroad and east of Da Vall Drive as Open space-Other.

Whereas the proposed General Plan land use plan designates much of the west side of Date Palm Drive between Ramon Road and Ortega Road for Medium Density Residential, the current General Plan designates it for General Commercial uses. Under the proposed General Plan, vacant land at the southwest City boundary is designated for Business Park uses; the current General Plan designates it for General Commercial uses. Designations vary on several others parcels south of I-10, but designations north of I-10 are the same under both plans, consistent with the approved North City Specific Plan and North City Extended Specific Plan.

The No Project Alternative land use map is shown on Exhibit 3-3, and the land use table is provided in Table 3-3.



10.30.18 Source: City of Cathedral City General Plan, 2009; ESRI 2018, Terra Nova Planning & Research, 2018.

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City of Cathedral City General Plan EIR
Alternative 3 - No Project Alternative (Existing Land Use)
Cathedral City, California

Cathedral City

Exhibit

3-3

Table 3-3 Cathedral City General Plan (2018) (Alternative 3) Existing Land Use Table

Land Use Category	ROW Acres	Land Use Acres	Total Acres	Vacant	Percentage of Vacant Lands	Developed	Percentage Developed Lands	Total	Percentage	Existing SF/Units	Potential SF/Units	Build out SF/Units
Residential												
Hillside Reserve (1du/20ac)	1.76	457.29	459.05	451.23	98.67%	6.06	1.33%	457.29	3.52%	0	23	**23**
Estate Residential (0-2du/ac)	6.92	421.86	428.78	421.27	99.86%	0.59	0.14%	421.86	3.25%	1	632	**633**
Low Density Residential (2-4.5du/ac)	803.30	3358.84	4162.14	977.49	29.10%	2381.35	70.90%	3358.84	25.84%	11,841	3,299	**15,140**
Resort Residential (3-6.5du/ac)	47.43	1339.15	1386.58	944.41	70.52%	394.74	29.48%	1339.15	10.30%	5,153	4,604	**9,757**
Medium Density Res. (4.5-10 du/ac)	38.73	348.75	387.48	100.14	28.71%	248.61	71.29%	348.75	2.68%	4,224	751	**4,975**
Medium-High Density Res. (11-20du/ac)	0.52	14.15	14.67	14.15	100.00%	0.00	0.00%	14.15	0.11%	-	212	**212**
High Density Residential (20-24du/ac)	2.44	38.65	41.09	38.65	100.00%	0.00	0.00%	38.65	0.30%	-	696	**696**
Mixed-Use - Neighborhood	9.24	208.16	217.40	208.16	100.00%	0.00	0.00%	208.16	1.60%	-	4,423	**4,423**
Mixed-Use - Urban	29.86	482.49	512.35	475.67	98.59%	6.82	1.41%	482.49	3.71%		18,194	**18,194**
Total Residential Acreage	**940.20**	**6669.34**	**7609.54**	**3631.17**	**54.45%**	**3038.17**	**45.55%**	**6669.34**	**51.31%**	**21,219**	**32,834**	**54,053**
Commercial												
Neighborhood Commercial	5.62	28.78	34.40	16.99	59.03%	11.79	40.97%	28.78	0.22%	113,011	162,794	**275,804**
General Commercial	132.31	647.06	779.37	280.57	43.36%	366.49	56.64%	647.06	4.98%	3,516,986	2,688,758	**6,205,745**
Downtown Commercial	40.58	113.99	154.57	61.30	53.78%	52.69	46.22%	113.99	0.88%	504,910	587,479	**1,092,389**
Mixed-Use - Neighborhood	13.87	312.54	326.41	312.54	100.00%	0.00	0.00%	312.54	2.40%	-	2,995,133	**2,995,133**
Mixed-Use - Urban	19.91	321.66	341.57	317.11	98.59%	4.55	1.41%	321.66	2.47%	43,600	3,038,932	**3,082,532**
Total Commercial Acreage	**212.29**	**1424.03**	**1636.32**	**988.51**	**69.42%**	**435.52**	**30.58%**	**1424.03**	**10.95%**	**4,178,508**	**9,473,096**	**13,651,604**
Industrial												
Industrial	26.20	645.18	671.38	572.20	88.69%	72.98	11.31%	645.18	4.96%	1,080,870	8,474,503	**9,555,374**
Business Park	17.85	328.92	346.77	252.18	76.67%	76.74	23.33%	328.92	2.53%	1,136,603	3,734,833	**4,871,437**
Total Industrial Acreage	**44.05**	**974.10**	**1018.15**	**824.38**	**84.63%**	**149.72**	**15.37%**	**974.10**	**7.49%**	**2,217,474**	**12,209,337**	**14,426,811**
Open Space												
Open Space - Other	10.64	602.57	613.21	573.65	95.20%	28.92	4.80%	602.57	4.64%	N/A	N/A	**N/A**
Open Space - Public	145.54	2292.12	2437.66	2292.12	100.00%	0.00	0.00%	2292.12	17.63%	N/A	N/A	**N/A**
Open Space - Water	11.45	769.88	781.33	474.43	61.62%	295.45	38.38%	769.88	5.92%	N/A	N/A	**N/A**
Total Open Space Acreage	**167.63**	**3664.57**	**3832.20**	**3340.20**	**91.15%**	**324.37**	**8.85%**	**3664.57**	**28.19%**	**N/A**	**N/A**	**N/A**
Public												
Cemetery	4.64	55.74	60.38	0.00	0.00%	55.74	100.00%	55.74	0.43%	N/A	N/A	**N/A**
Library	0.77	2.80	3.57	0.00	0.00%	2.80	100.00%	2.80	0.02%	N/A	N/A	**N/A**
Schools	7.29	149.38	156.67	0.00	0.00%	149.38	100.00%	149.38	1.15%	N/A	N/A	**N/A**
Transportation	181.20	58.97	240.17	0.00	0.00%	58.97	100.00%	58.97	0.45%	N/A	N/A	**N/A**
Total Public Acreage	**193.90**	**266.89**	**460.79**	**0.00**	**0.00%**	**266.89**	**100.00%**	**266.89**	**2.05%**	**N/A**	**N/A**	**N/A**
Totals	**1558.08**	**12998.92**	**14557.00**	**8784.26**	**67.58%**	**4214.66**	**32.42%**	**12998.92**	**100.00%**			

*Existing and future conditions of Mixed-use, Commercial, and Industrial Land uses are calculated using the following assumptions: residential development is assumed to occur at 75% of the maximum density permitted, 22% lot coverage for commercial and mixed-use development, and 34% lot coverage for industrial development. Mixed-use Neighborhood is developed as 60% commercial and 40% residential. Mixed-use Urban is developed as 60% residential and 40% commercial. Updated 5.30.19

3.1.6 Alternatives Considered but Not Further Analyzed

Over the course of evaluating the current City General Plan, transportation plans and other General Plan parameters and possible environmental effects, a wide variety of changes, revisions and expansions were considered. A variety of land use changes were also considered and many of these have been incorporated into the Proposed Project and/or Project Alternatives. These have included expanded assignments of mixed-use land use designations to developed but vacant commercial properties, expansion of industrial land, and changes in allowed land uses and densities in different categories.

Other changes also considered but not included in project alternatives are changes in major Specific Plans, although some of these will be given further consideration following completion of the General Plan update process. Ultimately, it was determined that these master plans should remain intact and more time given to see if and how they may buildout. Other, much smaller existing Specific Plans were also evaluated, and several may be considered for rescinding. However, any determination to rescind (or amend) these Specific Plans is deferred until such time as the updated General Plan is adopted.

The following alternatives were considered by the City but were not further analyzed because it was determined they would not meet one or more of the project objectives (CEQA 15126.6).

A. Variations of Alternative 1
Higher residential densities and floor area ratios (FAR) were considered on various vacant parcels. However, it was determined that they were inconsistent with the character of the community, that environmental considerations made them impractical, and denser development was not compatible with the scale of existing development. Ever greater land use intensities would also be difficult to accommodate with the existing transportation network and opportunities for its expansion, even in light of the increased promotion of and provision for multi-modal transportation embodied in the proposed General Plan.

This alternative would not meet several project objectives (see Section 3.2) and, therefore, was not further analyzed.

B. Variations of Alternative 2
Lower residential densities were considered on various vacant parcels. However, it was determined that this approach would limit future opportunities for multi-unit housing, including affordable and senior housing. It was also likely to increase the inefficiencies and costs of providing infrastructure, such as utilities, roads and utilities, to support development that would be spread out geographically.

This alternative would not meet several project objectives (Section 3.2) and, therefore, was not further analyzed.

C. Broader-Reaching Multi-Modal Transportation Systems
Despite the support for comprehensive multi-modal transportation systems at various levels of government planning, private automobiles are expected to continue to dominate the transportation sector over the life of the General Plan update (20 years), and roads will continue to be needed to access development and facilitate the movement of people and goods. Safety considerations have also affected the viability of a more intensive conversion of the roadway network to alternative modes of travel

This alternative would not meet several project objectives (see Section 3.2) and, therefore, was not further analyzed.

Project Alternatives Analysis

3.2. Aesthetics

3.2.1. Introduction

This section evaluates potential impacts of implementing the Project alternatives on aesthetic, visual, and scenic resources, including potential loss of views, direct impacts to scenic resources, and effects of increased lighting on motorists and residents in the Planning Area. General Plan policies and programs, and standard City requirements are evaluated as to their effect of mitigating or avoiding any potentially significant effects.

3.2.2. Existing Conditions

Panoramic mountain vistas are the most prominent of the City's scenic resources, including the upper slopes of the Santa Rosa Mountains to the southwest and south, the steeply rising terrain of the San Jacinto Mountains and Mt. San Jacinto to the west, Mt. San Gorgonio and the San Bernardino Mountains to the northwest, and the Indio Hills and Little San Bernardino Mountains to the north and northeast. In addition, a wide variety of visual resources in the City are associated with the built environment and include the City Downtown area, the East Palm Canyon Drive corridor, and the numerous public parks and golf course communities. Please also see Section 2.2 for further details on existing conditions and regulations.

3.2.3. Alternatives Impact Analysis

It should be noted that the future aesthetic conditions will be similarly impacted in the Alternative 1 (More Intense), 2 (Less Intense) and 3 (No Project) project alternatives, and will be comparable in all cases with the Proposed Project. Therefore, future impacts, avoidance, minimization and mitigation measures, post-mitigation residual impacts, and cumulative impacts are covered in one discussion. Please also see Section 2.2 for details on future aesthetic impacts and how they are avoidance, minimization and mitigated for the Proposed Project.

3.2.3.1. Alternatives 1, 2 & 3

3.2.3.1.1. Alternatives 1, 2 & 3 Impacts

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

Alternatives 1, 2 and 3 will facilitate new development in areas that are currently vacant, and encourage redevelopment in existing urbanized areas within the City. The redevelopment or development of new manmade structures, including buildings, streets, signage, walls, and landscaping (the built environment), has the potential to disrupt views of the scenic vistas and natural landscapes.

Similar to the Proposed Project, the policies and programs contained in the Community Design and Open Space/Conservation Elements, as well as the Circulation and Mobility Element, will limit the potential impacts on scenic vistas resulting from implementation of Alternatives 1, 2 and 3. As a result, impacts on scenic vistas caused by implementation of the project alternatives will be less than significant.

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

Scenic resources include trees, rock outcroppings, and historic buildings that are visible from a state scenic highway. All of the alternatives respect and preserve both important and valuable scenic resources, as well as historic buildings. Currently, there are no state scenic highways that run through Cathedral City. While the General Plan Circulation and Mobility Element identifies "image corridors", none of these would be adversely impacted by implementation of any of the project alternatives. Therefore, impacts to scenic resources along a state scenic highway or other important scenic corridors will be less than significant.

The City protects and enhances scenic corridors such as streetscapes, parks and open space, by securing and thoughtfully landscaping parkway easements along major roadways, resulting in greater building setbacks and enhanced parkway appearance. Alternatives 1, 2 and 3 would apply policies and programs currently set forth in the Proposed Project and the current General Plan that enhance parkways and assure viewshed protection. Parkway easements along image corridors help assure that the traveling public (and adjoining property owners) share in a quality landscaped parkway experience that enhances the image of these scenic corridors. Therefore, implementation of Alternatives 1, 2 or 3 will have a less than significant impact on scenic resources within the City.

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

Visual character includes the existing look, feel, and quality of urbanized and natural areas. Large portions of the City are already developed with a full mix of land uses. Several areas in the already urbanized portions of the City are vacant and available primarily for in-fill development. Overall, industrial and commercial development has been intensified as part of the Proposed Project, Alternative 1, and Alternative 2 in an effort to increase land use efficiencies and to achieve a greater return on the City's investment in infrastructure and services.

Policies and programs in the proposed General Plan, specifically the Community Design Element, are consistent with and will enhance the existing character of development in the City. Streets will continue to be developed with curb, gutter, and landscaping to improve visual character along public rights-of-way. In addition, the City's Architectural Review Committee is responsible for reviewing architectural and landscaping design for all new commercial, industrial and multi-family residential projects, major commercial remodels and administrative design review applications on a project-specific, case-by-case basis. All development projects will also be required to adhere to the design standards and guidelines set forth in the City's Municipal Code. The project alternatives will not conflict with applicable zoning and other regulations governing scenic quality. Visual character impacts in both urbanized and rural areas within the City as a result of the implementation of Alternatives 1, 2, or 3 are, therefore, expected to be less than significant.

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

Similar to the Proposed Project, the project alternatives will adhere to proposed General Plan policies and programs that protect against excessive lighting or glare. Also, the City's Municipal Code prohibits light spillage onto neighboring properties. Therefore, implementation of Alternative 1, 2 or 3 will have a less than significant impact on light and glare impacts within the City.

3.2.3.1.2. Alternatives 1, 2 & 3 Mitigation Measures

The proposed General Plan policies and programs would apply to all of the alternatives analyzed, and include those specifically in the Community Design Element but also elsewhere in the proposed General Plan, the City's Municipal Code. Also, the project-specific design review process will control the aesthetics, mass, scale and bulk of new projects and redeveloped sites. Therefore, all of the General Plan alternatives would serve to avoid, minimize and mitigate the potential adverse effects of continuing urbanization of the City's visual and other aesthetic resources. Impacts to aesthetic resources are expected to be less than significant for all project alternatives, and no mitigation measures are required. Nonetheless, the project alternatives will adhere to the measures set forth in Section 2.2.6 which were derived from the Community Design Element and will further assure that impacts related to aesthetics are less than significant.

3.2.3.1.3. Alternatives 1, 2 & 3 Significance After Mitigation

Policies and programs set forth in the proposed General Plan and adherence to the City's Municipal Code and project review process ensure that impacts associated with implementation of Alternatives 1, 2 or 3 that are related to aesthetic quality and resources will be less than significant.

3.2.3.1.4. Alternatives 1, 2 & 3 Cumulative Impacts

The policies and programs set forth in the proposed General Plan update are applicable to all project alternatives, provide design regulation and guidance for future growth within the City, and augment the additional regulation under the City Municipal Code. While the potential exists for aesthetic resources to be degraded by future development, the General Plan recognizes the importance of and vested interest in preserving and enhancing the community's aesthetic resources. Therefore, any such impacts resulting from the implementation of Alternatives 1, 2 or 3 will not make a considerable cumulative addition to regional impacts to these resources.

3.2.4. Environmental Superior Alternative

The environmentally superior alternative was chosen based on potential long-term impacts to the scenic environment. The General Plan policies, the City's Municipal Code, and the project-specific design review process will control the aesthetics, mass, scale and bulk of new projects and redeveloped sites. In this regard, the proposed General Plan and alternatives will implement the same policies and programs, along with the City's existing review processes, are designed to avoid, minimize and mitigate the potential adverse effects of continuing urbanization of the City's visual and other aesthetic resources. Therefore, all project alternatives, including the Proposed Project, will have the same general level of impact which will be less than significant. There is no Environmentally Superior Alternative. All Alternatives are equally as effective and will have a positive impact on aesthetic resources.

3.3 Agriculture and Forestry Resources

3.3.1. Introduction

The following section assesses impacts on agricultural and forestry resources resulting from the three General Plan project alternatives. A detailed discussion of agricultural and forestry resources and how they could be affected by implementation of the Proposed Project can be found in Section 2.3.

3.3.2. Existing Conditions

Most of the Planning Area is designated as being "Urban and Built-up Land" and "Other Land" according to the Riverside County Important Farmland Map of 2016. Currently, there are no agricultural activities located in the City, although cannabis is being grown in the City but within enclosed buildings. There are no Williamson Act Lands or forest lands within the Planning Area. Please see Section 2.3 for a detailed discussion of the existing agricultural and forestry environment.

3.3.3. Alternatives Impact Analysis

It should be noted that the agricultural and forestry environment in the City and region will be similarly impacted in the Alternative 1 (More Intense), 2 (Less Intense) and 3 (No Project) project alternatives. Therefore, future impacts, mitigation measures, post-mitigation residual impacts, and cumulative impacts are covered in one discussion.

3.3.3.1. Alternatives 1, 2 & 3

3.3.3.1.1. Alternatives 1, 2 & 3 Impacts

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

There are no prime or unique farmlands, or farmlands of statewide importance in the City. Nor will the implementation of Alternatives 1, 2, or 3 impact farmlands of any type. Similar to the Proposed Project, there will be no impacts to farmlands.

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

There are no lands that are zoned for agricultural use in the City nor are there any lands that are under a Williamson Act contract. Therefore, the implementation of Alternatives 1, 2, or 3 will have no impact on such lands.

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

There are no forest lands within the City nor are their lands zoned for forestry or would be re-zoned for such use as a consequence of the implementation of Alternatives 1, 2, or 3. There will be no impacts.

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

The implementation of Alternatives 1, 2, or 3 will not result in the loss of forestry land or the conversion of such lands to non-forestry uses. There will be no impacts.

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

The implementation of Alternatives 1, 2, or 3 will not result in the conversion of any designated farmlands to non-agricultural uses, nor will it affect forestry lands. There will be no impacts.

3.3.3.1.2. Alternative 1, 2 & 3 Mitigation Measures

Alternatives 1, 2, or 3 will not directly or indirectly affect or require conversion of farmland or forestry land to non-agricultural or non-forestry uses. Therefore, no mitigation is required.

3.3.3.1.3. Alternative 1, 2 & 3 Significance After Mitigation

There will be no residual impacts to agricultural or forestry resources as a consequence of implementing Alternatives 1, 2, or 3.

3.3.3.1.4. Alternative 1, 2 & 3 Cumulative Impacts

There are no agricultural or forest resources in the project study area. Therefore, none of the project alternatives would contribute to any cumulative projects related to acting to diminish or reduce agricultural or forest resources. No agricultural or forest land conversions would occur, and no alternative would contribute to any cumulatively considerable impacts related to agricultural resources.

3.3.4. Environmental Superior Alternative

Because no actions from implementation of the Proposed Project or project alternatives convert farmland to non-farmland uses, or affect forestry resources, in the planning area, all alternatives will have essentially the same effect of “no impact” as the Proposed Project. There is no environmentally superior alternative.

3.4 Air Quality and Greenhouse Gas Emissions

3.4.1. Introduction

The following section analyzes the potential air quality and greenhouse gas emissions impacts associated with the Proposed Project alternatives. A variety of local and regional data and information, ranging from research and analysis conducted for the City planning area, to regional-scale planning and environmental documents, have been used in researching and analyzing the Project and its potential effects on air quality. An Air Quality and Greenhouse Gas Report was prepared for the Proposed Project and alternatives and is provided in Appendix B of this EIR.

3.4.2. Existing Conditions

Cathedral City is located within the Salton Sea Air Basin (SSAB) and is within the jurisdiction of the South Coast Air Quality Management District (SCAQMD). Air quality in the Salton Sea Air Basin has been impacted by emissions associated with increased development, population growth, and vehicle emissions. Although air pollution is emitted locally from various sources, some of the degradation of air quality within the Salton Sea Air Basin can be attributed to sources located outside of the basin. In the General Plan area, air quality is regulated by the SCAQMD, which implements applicable state and federal policies and regulations.

Some air polluting agents are also greenhouse gases such as carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated gases (hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride), which are released into the atmosphere through natural processes and human activities. These gases are termed greenhouse gases (GHG) due to their shared characteristic of trapping heat.

Please see Section 2.4 for a detailed description of the regulatory framework and existing air quality conditions relating to the Project site.

3.4.3. Alternatives Impact Analysis

3.4.1.1 Alternative 1

Alternative 1, the More Intense Alternative, would result in increased housing, commercial, and industrial/business land use intensities when compared to the 2040 General Plan. It would also result in an increase in vehicle trips and vehicle miles traveled, when compared to the current and proposed General Plan. The land use increases will also increase population, traffic, waste generation, water demand and energy demand. Overall, Alternative 1 would result in an increase of criteria pollutant and greenhouse gas emissions.

3.4.1.1.1 Alternative 1 Impacts

AIR QUALITY

Would Alternative 1:

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

Compared to the Proposed Project, implementation of Alternative 1 has the potential to further increase development intensities and the City's buildout population upon which population projections for the 2016 AQMP and 2016-2040 RTP/SCS were based. Because the City's population projections for 2040 under the Proposed Project is more than double the population projections assumed in the Growth Management chapter of the RTP/SCS, and Alternative 1 could slightly increase the 2040 population based on a faster annual growth rate, Alternative 1 possibly could conflict with or obstruct implementation of the SCAQMD attainment plans.

The 2040 General Plan policies and programs can be applied to Alternative 1 and represent the best practicable strategies to reduce emissions associated with buildout. Section 2.4.7 Mitigation Measures are derived from the proposed General Plan programs and are designed to avoid and or reduce air quality impacts to less than significant levels. These programs were designed to ensure the City's compliance with air quality management plans, regardless of changes in population projections. Therefore, impacts will be less than significant with mitigation measures **AQ-1** through **AQ-22**.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

The Coachella Valley portion of the SSAB is classified as a "non-attainment" area for PM_{10} and ozone. Any development project or activity resulting in emissions of PM_{10}, ozone, or ozone precursors will contribute, to some degree, to regional non-attainment designations of ozone and PM_{10}. As shown in the table below, the cumulative net increases of PM_{10}, ROG, and NOx emissions, which are ozone precursors, would be slightly greater than those emitted under the Proposed Project.

Table 3.4-1
Operational Emissions Summary
Proposed vs Alternative 1 Land Use
(lbs./day)

	CO	NO_x	ROG	SO_x	PM_{10}	$PM_{2.5}$
Proposed LU Table						
Area	4,686.34	515.21	2,816.59	3.19	62.46	62.46
Energy	222.46	414.35	47.71	2.60	32.96	32.96
Mobile	16,904.81	13,432.64	1,444.33	80.89	6,223.26	1,685.44
TOTAL:	**21,813.61**	**14,362.20**	**4,308.63**	**86.68**	**6,318.68**	**1,780.86**
SCAQMD Threshold*	**550.00**	**100.00**	**75.00**	**150.00**	**150.00**	**55.00**
Exceeds Threshold	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**Yes**
Alternative 1 LU Table						
Area	4,959.43	545.25	2,877.50	3.38	66.10	66.10
Energy	226.12	422.21	48.62	2.65	33.59	33.59
Mobile	17,196.18	13,719.06	1,472.87	82.27	6,319.41	1,711.50
TOTAL:	**22,381.73**	**14,686.52**	**4,398.99**	**88.30**	**6,419.10**	**1,811.19**
SCAQMD Threshold*	**550.00**	**100.00**	**75.00**	**150.00**	**150.00**	**55.00**
Exceeds Threshold	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**Yes**

Source: CalEEMod Version 2016.3.2. See Appendix A for detailed tables. Value shown represents the average emissions of summer and winter outputs.
* Source: "SCAQMD Air Quality Significance Thresholds" prepared by SCAQMD.

The SCAQMD does not currently recommend quantified analyses of construction and/or operational emissions from multiple development projects nor provides methodologies or thresholds of significance to be used to assess the significance of cumulative emissions generated by multiple cumulative projects, including buildout of a General Plan. However, it is recommended that a project's potential contribution to cumulative impacts should be assessed utilizing the same significance criteria as those for project-specific impacts.

As shown above, projections of these pollutants exceed established daily thresholds, with the exception of Sox, and therefore as ozone precursors have the potential to result in a cumulative impact to ozone, and PM_{10}. However, subsequent CEQA documentation prepared for future individual projects would subject to project-specific analysis and would be required to address, and to the extent feasible, mitigate any significant air quality impacts to a less than significant level.

Therefore, with implementation of the General Plan policies and programs, as set forth in Section 2.4.7 and the Air Quality and Climate Stability Element, impacts to non-attainment criteria pollutants are expected to be reduced to less than significant levels on a case-by-case basis. (See mitigation measures AQ-6). In addition, the majority of criteria pollutant emissions are due to mobile sources. The 2040 General Plan policies that promote the reduction of GHG emissions through transportation planning include CD Policy 5.1, OSC Policy 2, and OSC Policy 5.

Impacts are expected to be less than significant with mitigation.

c) Expose sensitive receptors to substantial pollutant concentrations?

The impact related to potential exposure of sensitive receptors to substantial concentrations of toxic air contaminants would be the same as for the Proposed Project. The addition of the Health Risk Evaluation program (AQCS Program 3.C) would guide health risk considerations and reduce potential toxic air contaminant exposure for existing and new sensitive receptors, thereby reducing this impact to less than significant levels because TAC significance thresholds would not be exceeded. Thus, Alternative 1 is not expected to expose sensitive receptors to substantial pollutant concentrations and air quality impacts to sensitive receptors are expected to be less than significant.

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

The impact related to potential exposure of people to odors or other emissions would be the same as for the Proposed Project. The City's current project review process ensures that within the Planning Area, project applications will be reviewed individually based on their potential to generate odors under CEQA. Therefore, it is considered unlikely that implementation of Alternative 1 would result in objectionable odors affecting a substantial number of people. Similar to the Proposed Project, Alternative 1 is expected to have less than significant impacts in regard to odors or other emissions.

GREENHOUSE GASES

Would Alternative 1:

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

The following GHG estimates are provided to compare 2040 conditions under the Proposed Project land use plan and Alternative 1 land use plan.

Table 3.4-2
2040 Operational GHG Emission Comparison (Metric Tons/Year)

	Existing GP LU	Proposed GP LU	Alternative 1 LU
Area Emissions	1,820.48	1,839.46	1,946.69
Energy Emissions	298,088.72	309,553.68	314,077.55
Mobile Emissions	1,275,498.08	1,261,202.65	1,287,766.49
Waste Emissions	36,993.72	38,848.62	40,590.35
Water Emissions	54,009.62	58,424.33	59,322.92
Total	**1,666,410.62**	**1,669,868.74**	**1,703,704.00**

Source: CalEEMod Version 2016.3.2. See Appendix B of this DEIR for detailed tables. Values shown represent the total unmitigated GHG emission projections for 2040 under existing GP conditions vs proposed GP conditions vs Alternative 1 conditions.

Because of the increased land use intensities, and thus increased traffic generation, Alternative 1 would generate more GHG emissions than the Proposed Project. Alternative 1 GHG emissions would also fail to achieve the State's GHG reduction targets for 2020, 2030, and 2050, as well as GHG reduction targets set forth in the City's CAP. Similar to the Proposed Project, the same General Plan policies would help promote GHG emission reductions. However, based on the GHG projections above, it is possible that Alternative 1 would generate GHG emissions that could have a significant and unavoidable impact on the environment.

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

Similar to the Proposed Project, Alternative 1 would not only increase the City's GHG emissions when compared to the existing and proposed General Plan land use plans, but buildout emission projections will fail to achieve State GHG reduction targets for 2020, 2030, and 2050, as well as GHG reduction targets set forth in the City's CAP. The same General Plan policies would be applied under Alternative 1 to help promote GHG emission reductions. Individual development projects developed under Alternative 1 will be assessed on a case-by-case basis for potential impacts related to GHG emissions. Projects will be required to demonstrate adherence to applicable plans, policies, and regulations adopted for the Proposed Project to reduce GHG emissions. However, based on the GHG projections above, it is possible that Alternative 1 would generate GHG emissions that are inconsistent with State reduction targets. Impacts will be significant and unavoidable.

3.4.1.1.2 Alternative 1 Mitigation Measures

Alternative 1 will be held to the same mitigation measures, **AQ-1** through **AQ-42**, set forth in Section 2.4.7 for the Proposed Project.

3.4.1.1.3 Alternative 1 Significance After Mitigation

AIR QUALITY

The mitigation measures provided in Section 2.4.7 have been programmed to ensure impacts to air quality will be reduced to the greatest extent possible. Due to the nature of air quality impacts, all future development within the City will be analyzed on a case-by-case basis and mitigated accordingly. Alternative 1 impacts after mitigation are expected to be less than significant.

GREENHOUSE GAS

The mitigation measures provided in Section 2.4.7 have been programmed to ensure impacts of greenhouse emissions will be reduced to the greatest extent practicable. Due to the nature of greenhouse gases, all future development within the City will be analyzed on a case-by-case basis and mitigated accordingly. However, based on the GHG projections, it is possible that Alternative 1 would generate GHG emissions that could have a significant and unavoidable impact on the environment.

3.4.1.1.4 Alternative 1 Cumulative Impacts

Cumulative impacts related to air quality and GHG's would be slightly greater than those of the Proposed Project, as discussed in Section 2.4.12. Cumulative impacts would be less than significant for air quality. However, impacts will remain significant and unavoidable for greenhouse gas emissions.

3.4.1.2 Alternative 2

Alternative 2, the Less Intense Alternative, would result in decreased housing, commercial, and industrial/business land use intensities when compared to the 2040 General Plan. The land use decreases will also decrease population, traffic, waste generation, water demand and energy demand. Overall, Alternative 2 would result in a decrease of criteria pollutant and greenhouse gas emissions.

3.4.1.2.1 Alternative 2 Impacts

AIR QUALITY

Would Alternative 2:

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

Compared to the Proposed Project, implementation of Alternative 2 has the potential to decrease development intensities and the City's buildout population upon which population projections for the 2016 AQMP and 2016-2040 RTP/SCS were based. Although Alternative 2 would result in a slight decrease in population, the City's population projections for 2040 are more than double the population projections assumed in the Growth Management chapter of the RTP/SCS, based on a faster annual growth rate, and therefore Alternative 2 possibly could conflict with or obstruct implementation of the SCAQMD attainment plans. The 2040 General Plan policies and programs can be Applied to Alternative 2 and represent the best practicable strategies to reduce emissions associated with buildout. Section 2.4.7 Mitigation Measures provides the list of City programs designed to avoid and or reduce air quality impacts to less than significant levels. These programs were designed to ensure the City's compliance with air quality management plans, regardless of changes in population projections. Therefore, impacts will be less than significant with mitigation measures AQ-1 through AQ-22.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

The Coachella Valley portion of the SSAB is classified as a "non-attainment" area for PM_{10} and ozone. Any development project or activity resulting in emissions of PM_{10}, or ozone or ozone precursors, will contribute incrementally to regional non-attainment designations of ozone and PM_{10}. As shown in the table below, the cumulative net increases of PM_{10}, ROG, and NOx emissions, which are ozone precursors, would be slightly less than those emitted under the Proposed Project.

Table 3.4-3
Operational Emissions Summary
Proposed vs Alternative 2 Land Use
(lbs./day)

	CO	NO_x	ROG	SO_x	PM_{10}	$PM_{2.5}$
Proposed LU Table						
Area	4,686.34	515.21	2,816.59	3.19	62.46	62.46
Energy	222.46	414.35	47.71	2.60	32.96	32.96
Mobile	16,904.81	13,432.64	1,444.33	80.89	6,223.26	1,685.44
TOTAL:	**21,813.61**	**14,362.20**	**4,308.63**	**86.68**	**6,318.68**	**1,780.86**
SCAQMD Threshold*	**550.00**	**100.00**	**75.00**	**150.00**	**150.00**	**55.00**
Exceeds Threshold	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**Yes**
Alternative 2 LU Table						
Area	4,059.61	446.27	2,597.59	2.76	54.10	54.10
Energy	207.42	383.48	44.12	2.40	30.48	30.48
Mobile	16,211.63	12,711.86	1,373.85	77.61	6,002.46	1,625.60
TOTAL:	**20,478.66**	**13,541.61**	**4,015.56**	**82.77**	**6,087.04**	**1,710.18**
SCAQMD Threshold*	**550.00**	**100.00**	**75.00**	**150.00**	**150.00**	**55.00**
Exceeds Threshold	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**Yes**

Source: CalEEMod Version 2016.3.2. See Appendix A for detailed tables. Value shown represents the average emissions of summer and winter outputs.
* Source: "SCAQMD Air Quality Significance Thresholds" prepared by SCAQMD.

The SCAQMD does not currently recommend quantified analyses of construction and/or operational emissions from multiple development projects nor provides methodologies or thresholds of significance to be used to assess the significance of cumulative emissions generated by multiple cumulative projects, including buildout of a General Plan. However, it is recommended that a project's potential contribution to cumulative impacts should be assessed utilizing the same significance criteria as those for project-specific impacts.

As shown above, projections of these pollutants exceed established daily thresholds and therefore have the potential to result in cumulative impacts to ozone and PM_{10}. However, subsequent CEQA analysis prepared for individual projects would have project-specific data and would be required to address, and to the extent feasible, mitigate any significant air quality impacts to a less than significant level. Therefore, with implementation of the General Plan programs and mitigation measures set forth in Section 2.4.7, impacts to non-attainment criteria pollutants are expected to be reduced to less than significant levels on a case-by-case basis. (See mitigation measures AQ-6). In addition, the majority of criteria pollutant emissions are due to mobile sources. The proposed General Plan policies that promote the reduction of GHG emissions through transportation planning include CD Policy 5.1, OSC Policy 2, and OSC Policy 5.

Impacts are expected to be less than significant with mitigation.

c) Expose sensitive receptors to substantial pollutant concentrations?

The impact related to potential exposure of sensitive receptors to substantial concentrations of toxic air contaminants would be the same as for the Proposed Project. The addition of the Health Risk Evaluation program (AQCS Program 3.C) would guide health risk considerations and reduce potential toxic air contaminant exposure at existing and new sensitive receptors, thereby reducing this impact to less than significant levels because TAC significance thresholds would not be exceeded. Thus, Alternative 2 is not expected to expose sensitive receptors to substantial pollutant concentrations and air quality impacts to sensitive receptors are expected to be less than significant.

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

The impact related to potential exposure of people to odors or other emissions would be the same as for the Proposed Project. The City's current project review process ensures that within the Planning Area, project applications will be reviewed individually based on their potential to generate odors under CEQA. Therefore, it is considered unlikely that implementation of Alternative 2 would result in objectionable odors affecting a substantial number of people. Similar to the Proposed Project, Alternative 2 is expected to have less than significant impacts in regard to odors or other emissions.

GREENHOUSE GAS

Would Alternative 2:

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

The following GHG estimates are provided to compare 2040 conditions under the proposed land use plan and Alternative 2 land use plan.

Table 3.4-4
2040 Operational GHG Emission Comparison
(Metric Tons/Year)

	Existing GP LU	Proposed GP LU	Alternative 2 LU
Area Emissions	1,820.48	1,839.46	1,593.38
Energy Emissions	298,088.72	309,553.68	290,501.50
Mobile Emissions	1,275,498.08	1,261,202.65	1,209,657.55
Waste Emissions	36,993.72	38,848.62	38,441.37
Water Emissions	54,009.62	58,424.33	53,811.23
Total	**1,666,410.62**	**1,669,868.74**	**1,594,005.03**

Source: CalEEMod Version 2016.3.2. See Appendix B of this DEIR for detailed tables. Values shown represent the total unmitigated GHG emission projections for 2040 under existing GP conditions vs proposed GP conditions vs Alternative 2 conditions.

Because of the decreased land use intensities, and thus decreased traffic generation, Alternative 2 would generate fewer GHG emissions than the Proposed Project. Alternative 2 GHG emissions would also fail to achieve the State's GHG reduction targets for 2020, 2030, and 2050. Similar to the Proposed Project, the same General Plan policies would help promote GHG emission reductions. However, based on the GHG projections above, it is possible that Alternative 2 would generate GHG emissions that could have a significant and unavoidable impact on the environment.

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

Similar to the Proposed Project, Alternative 2 buildout emission projections will fail to achieve State GHG reduction targets for 2020, 2030, and 2050, as well as GHG reduction targets set forth in the City's CAP. However, Alternative 2 would decrease the City's GHG emissions when compared to the existing and proposed General Plan land use plans. The same General Plan policies would be applied under Alternative 2 to help promote further GHG emission reductions. Individual development projects developed under Alternative 2 will be assessed on a case-by-case basis for potential impacts related to GHG emissions. Projects will be required to demonstrate adherence to applicable plans, policies, and regulations adopted for the purposed General Plan to reduce GHG emissions. However, based on the GHG projections above, it is possible that Alternative 2 would generate GHG emissions that are inconsistent with State reduction targets. Impacts will be significant and unavoidable.

3.4.1.2.2 Alternative 2 Mitigation Measures

Alternative 2 will be held to the same mitigation measures, AQ-1 through AQ-42, set forth in Section 2.4.7.

3.4.1.2.3 Alternative 2 Significance After Mitigation

AIR QUALITY
The mitigation measures provided in Section 2.4.7 have been programmed to ensure impacts to air quality will be reduced to the greatest extent possible. Due to the nature of air quality impacts, all future development within the City will be analyzed on a case-by-case basis and mitigated accordingly. Alternative 2 impacts after mitigation are expected to be less than significant.

GREENHOUSE GAS

The mitigation measures provided in Section 2.4.7 have been programmed to ensure impacts of greenhouse emissions will be reduced to the greatest extent possible. Due to the nature of greenhouse gases, all future development within the City will be analyzed on a case-by-case basis and mitigated accordingly. However, based on the GHG projections, it is possible that Alternative 2 would generate GHG emissions that could have a significant and unavoidable impact on the environment.

3.4.1.2.4 Alternative 2 Cumulative Impacts

Cumulative impacts related to air quality and GHG's would be slightly less than those of the Proposed Project, as discussed in Section 2.4.12. Cumulative impacts would be less than significant for air quality. However, impacts will remain significant and unavoidable for greenhouse gas emissions.

3.4.1.3 Alternative 3 – No Project

Under Alternative 3, buildout of the existing General Plan would occur and there would be no modifications to land uses.

3.4.1.3.1 Alternative 3 Impacts

AIR QUALITY

Would Alternative 3:

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

There are currently 54,466 residents in Cathedral City. Assuming 32,834 new units and 3.16 persons per household[1], buildout of the No Project Alternative is projected to result in an additional 103,756 residents. At buildout, the total City population would be approximately 158,222 residents. This is 1,776 (1%) fewer residents than projected at buildout of the proposed General Plan Update. Although Alternative 3 would result in a slight decrease in population compared to the proposed General Plan Update, the City's population projections for 2040 are more than double the population projections assumed in the Growth Management chapter of the RTP/SCS, and therefore Alternative 3 possibly could conflict with or obstruct implementation of the SCAQMD attainment plans. Section 2.4.7 Mitigation Measures is based on the proposed General Plan's list of implementation programs designed to avoid and or reduce air quality impacts to less than significant levels. Many of these programs are also provided in the existing General Plan and were designed to ensure the City's compliance with air quality management plans, regardless of changes in population projections. Therefore, impacts will be less than significant.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

The Coachella Valley portion of the SSAB is classified as a "non-attainment" area for PM_{10} and ozone. Any development project or activity resulting in emissions of PM_{10}, ozone, or ozone precursors will contribute, to some degree, to regional non-attainment designations of ozone and PM_{10}. As shown in the table below, the cumulative net increases of PM_{10}, ROG, and NOx emissions, which are ozone precursors, would be slightly less under the No Project alternative compared to those emitted under the Proposed Project.

[1] City/County Population and Housing Estimates (Report E-5), January 1, 2018, California Department of Finance.

Table 3.4-5
Operational Emissions Summary
Alternative 3 vs. Proposed Land Use (lbs./day)

	CO	NO_x	ROG	SO_x	PM_{10}	$PM_{2.5}$
Alternative 3 (Existing) LU Table						
Area	4,637.86	509.91	2,744.19	3.16	61.82	61.82
Energy	209.39	399.20	46.04	2.51	31.81	31.81
Mobile	17,046.83	13,529.10	1,455.39	81.58	6,278.86	1,700.50
TOTAL:	**21,894.08**	**14,438.21**	**4,245.62**	**87.25**	**6,372.49**	**1,794.13**
SCAQMD Threshold*	**550.00**	**100.00**	**75.00**	**150.00**	**150.00**	**55.00**
Exceeds Threshold	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**Yes**
Proposed LU Table						
Area	4,686.34	515.21	2,816.59	3.19	62.46	62.46
Energy	222.46	414.35	47.71	2.60	32.96	32.96
Mobile	16,904.81	13,432.64	1,444.33	80.89	6,223.26	1,685.44
TOTAL:	**21,813.61**	**14,362.20**	**4,308.63**	**86.68**	**6,318.68**	**1,780.86**
SCAQMD Threshold*	**550.00**	**100.00**	**75.00**	**150.00**	**150.00**	**55.00**
Exceeds Threshold	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**Yes**

Source: CalEEMod Version 2016.3.2. See Appendix A for detailed tables. Value shown represents the average emissions of summer and winter outputs.
* Source: "SCAQMD Air Quality Significance Thresholds" prepared by SCAQMD.

The SCAQMD does not currently recommend quantified analyses of construction and/or operational emissions from multiple development projects nor provides methodologies or thresholds of significance to be used to assess the significance of cumulative emissions generated by multiple cumulative projects, including buildout of a General Plan. However, it is recommended that a project's potential contribution to cumulative impacts should be assessed utilizing the same significance criteria as those for project-specific impacts.

As shown above, under the No Project alternative projections of these pollutants exceed established daily thresholds and therefore have the potential to result in cumulative impacts to ozone and PM_{10}. However, subsequent CEQA documentation prepared for individual projects would have project-specific data and would be required to address, and to the extent feasible, mitigate any significant air quality impacts to a less than significant level. Therefore, with implementation of the existing General Plan programs and mitigation measures set forth in Section 2.4.7, impacts to non-attainment criteria pollutants are expected to be reduced to less than significant levels on a case-by-case basis. (See mitigation measures AQ-6).

Impacts are expected to be less than significant with mitigation.

c) Expose sensitive receptors to substantial pollutant concentrations?

The impact related to potential exposure of sensitive receptors to substantial concentrations of toxic air contaminants under the No Project alternative would be the same as for the Proposed Project due to the existing General Plan policy (AQCS Policy 3) regarding the protection of sensitive receptors and the CEQA review process. However, Alternative 3 does not include the addition of the Health Risk Evaluation program (AQCS Program 3.C), which would further guide health risk considerations and reduce potential toxic air contaminant exposure at existing and new sensitive receptors. However, due to the CEQA review process for new development projects and standard requirements for mitigation, Alternative 3 is not expected to expose sensitive receptors to substantial pollutant concentrations and air quality impacts to sensitive receptors are expected to be less than significant.

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

The impact related to potential exposure of people to odors or other emissions under the No Project alternative would be the same as for the Proposed Project. The City's current project review process ensures that within the Planning Area, project applications will be reviewed individually based on their potential to generate odors under CEQA. Therefore, it is considered unlikely that implementation of Alternative 3 would result in objectionable odors affecting a substantial number of people. Similar to the Proposed Project, Alternative 3 is expected to have less than significant impacts in regard to odors or other emissions.

GREENHOUSE GAS

Would Alternative 3:

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

The following GHG estimates are provided to compare 2040 conditions under the proposed land use plan and Alternative 3, the existing General Plan land use plan.

Table 3.4-6
2040 Operational GHG Emission Comparison
(Metric Tons/Year)

	Alt 3 (Existing) GP LU	Proposed GP LU
Area Emissions	1,820.48	1,839.46
Energy Emissions	298,088.72	309,553.68
Mobile Emissions	1,275,498.08	1,261,202.65
Waste Emissions	36,993.72	38,848.62
Water Emissions	54,009.62	58,424.33
Total	**1,666,410.62**	**1,669,868.74**

Source: CalEEMod Version 2016.3.2. See Appendix B of this DEIR for detailed tables. Values shown represent the total unmitigated GHG emission projections for 2040 under existing GP conditions vs proposed GP conditions.

Because of the lower land use intensities, and thus lower traffic generation, Alternative 3 would generate fewer GHG emissions than the Proposed Project. However, Alternative 3 GHG emissions would also fail to achieve the State's GHG reduction targets for 2020, 2030, and 2050 unless mitigated. The existing General Plan policies and CAP would help promote GHG emission reductions. However, based on the GHG projections above, it is possible that Alternative 3 would generate GHG emissions that could have a significant and unavoidable impact on the environment.

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

Similar to the Proposed Project, Alternative 3 buildout emission projections will fail to achieve State GHG reduction targets for 2020, 2030, and 2050, and the GHG reduction targets in the City's CAP. However, Alternative 3 would result in fewer GHG emissions when compared to the proposed General Plan Update land use plan. The existing General Plan policies would be applied under Alternative 3 to help promote further GHG emission reductions.

Individual development projects developed under Alternative 3 will be assessed on a case-by-case basis for potential impacts related to GHG emissions. Projects will be required to demonstrate adherence to applicable plans, policies, and regulations adopted for the purposed of reducing GHG emissions. However, based on the GHG projections above, it is possible that Alternative 3 would generate GHG emissions that are inconsistent with State reduction targets. Thus, impacts will be significant and unavoidable.

3.4.1.3.2 Alternative 3 Mitigation Measures

Alternative 3 will be held to the same mitigation measures, AQ-1 through AQ-42, set forth in Section 2.4.7, as they are existing programs within the current General Plan.

3.4.1.3.3 Alternative 3 Significance After Mitigation

AIR QUALITY
The mitigation measures provided in Section 2.4.7 are currently programmed into the existing General Plan to ensure impacts to air quality will be reduced to the greatest extent possible. Due to the nature of air quality impacts, all future development within the City will be analyzed on a case-by-case basis and mitigated accordingly. Alternative 3 impacts after mitigation are expected to be less than significant.

GREENHOUSE GAS
The mitigation measures provided in Section 2.4.7 have been programmed into the existing General Plan to ensure impacts of greenhouse emissions will be reduced to the greatest extent possible. Due to the nature of greenhouse gases, all future development within the City will be analyzed on a case-by-case basis and mitigated accordingly. However, based on the GHG projections, it is possible that Alternative 3 would generate GHG emissions that could have a significant and unavoidable impact on the environment.

3.4.1.3.4 Alternative 3 Cumulative Impacts

Cumulative impacts related to air quality and GHG's would be slightly less under the No Project alternative compared to those of the Proposed Project, as discussed in Section 2.4.12. Impacts to air quality would be less than significant. However, impacts will remain significant and unavoidable for greenhouse gas emissions.

3.4.4. Environmental Superior Alternative

At buildout, Alternative 2 would result in the fewest criteria pollutant and GHG emissions, thus resulting in less intense impacts to air quality and GHG thresholds. In this regard, Alternative 2 is the environmentally superior alternative compared to the other alternatives.

3.5. Biological Resources

3.5.1. Introduction

This section provides environmental analysis of potential biological resource impacts that would result from implementation of project alternatives. Each alternative's potential impacts to these resources are discussed and compared to the Proposed Project.

3.5.2. Existing Conditions

The General Plan planning area is located in the Coachella Valley which is at the western edge of the Colorado Desert subdivision of the Sonoran Desert. A wide range of common plant and animal species are reported in this region. Much of the General Plan planning area south of I-10 is already developed with urban land uses that, over time, have resulted in the permanent loss of native habitats and plant and animal species, and disturbance of the natural aeolian (wind) or hydrological (water) processes needed to sustain them. Scattered vacant parcels are interspersed with development in this portion of the City, and several larger expanses of undeveloped land are immediately south of I-10. Nearly all land north of I-10 is undeveloped, with the exception of a few roads, above-ground water reservoirs, wind turbines and electric power lines.

Please see Section 2.5 Biological Resources for the full discussion of regional and local conditions.

3.5.3. Alternatives Impact Analysis

3.5.3.1. Alternative 1

Alternative 1, also known as the "More Intense Alternative," will result in greater land use densities. However, the same General Plan planning area as the Proposed Project will be affected.

3.5.3.1.1. Alternative 1 Impacts

Would Alternative 1:

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

As described in Section 2.5, the General Plan planning area contains or potentially contains numerous sensitive species, including some designated as endangered or threatened by the USFWS and CDFW. Some have been identified for conservation or protection in the CVMSHCP and Agua Caliente Tribal HCP, and some are subject to land management policies and plans of the BLM and other regulatory agencies.

Similar to the proposed General Plan update, Alternative 1 would facilitate future urban development that could disturb or permanently remove sensitive species and/or their habitats. Future development projects facilitated under Alternative 1 would be evaluated on a project-by-project basis for potential adverse impacts to sensitive species and required to implement mitigation measures, as needed. Overall, as is the case for the Proposed Project, with the implementation of Mitigation Measures set forth in Section 2.5.7 (BIO-1 through BIO-6), potential impacts to sensitive species associated with the Alternative 1 would be less than significant, and consistent with the impacts of the Proposed Project.

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

In the General Plan planning area, riparian habitat is generally found along major drainages, such as the Whitewater River Stormwater Channel and East and West Cathedral Canyon Channels. As with the proposed General Plan update, Alternative 1 would facilitate future development that could impact riparian habitat. However, development opportunities near riparian habitat in the planning area are limited because most sensitive natural communities are in areas designated as Open Space. Nonetheless, the possibility exists for a project to occur in the vicinity of riparian habitat.

As in the case for the Proposed Project, impacts would be minimized by implementation of General Plan Biological Resources Sub-Element Policy 2, which requires the City to evaluate development projects for their impacts on existing habitat and wildlife, and for the land's value as viable open space. The City may require site-specific biological assessments to evaluate potential impacts to riparian habitat and the need for mitigation measures. Consistent with the Proposed Project, project-specific impacts would be less than significant with implementation of Mitigation Measures BIO-7 through BIO-10 (see Section 2.5.7).

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

In Cathedral City, the Whitewater River Stormwater Channel, East Cathedral Canyon Channel, and drainage from East Wide Canyon (north of I-10) have been identified as part of "riverine" systems that include "wetlands and deepwater habitats contained within a channel that periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water."

As with the proposed General Plan update, Alternative 1 would facilitate new development in the planning area which could permanently or temporarily impact wetlands under state or federal jurisdiction. Policy 10 of the General Plan Water Resources Sub-Element requires new development to protect the quality of water bodies and natural drainage systems through sign design, source controls, storm water treatment, runoff reduction measures, and best management practices. The City may require assessments of hydrologic and habitat conditions to determine whether and to what extent future development projects will impact protected wetlands, as well as the need for mitigation (see Mitigation Measures BIO-7 through BIO-10). Implementation of these measures will reduce potential impacts of future development on protected wetlands to less than significant levels. These impacts are consistent with impacts of the Proposed Project.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The City contains no natural aquatic resources that could support fish; therefore, Alternative 1 will have no impact on the movement of fish species.

The majority of parcels on the valley floor within the General Plan area are currently developed and surrounded by elements of the built environment, including buildings, roads, walls and fences, and utility infrastructure, thus diminishing the viability of wildlife migratory corridors. Nonetheless, development could result in the construction of barriers to wildlife movement, such as fences, walls, buildings, and roads. Development within and adjacent to CVMSHCP Conservation Areas is subject to land use adjacency guidelines, which could also reduce potential impacts.

Future development facilitated by Alternative 1 could impact nesting birds if construction occurs in the spring; however, implementation of MBTA surveys (Mitigation Measure BIO-4) would reduce potential impacts to less than significant levels.

The General Plan Biological Resources Sub-Element includes Policy 3 and Program 3.A by which the City would encourage and cooperate with other agencies in establishing multiple-use corridors that take advantage of drainage channels and utility easements as wildlife movement corridors, public access ways, and linkages between open space areas and the built environment. Consistent with the Proposed Project, implementation of these measures would reduce potential impacts to less than significant levels.

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

As discussed in Section 2.5, the City does not have a tree preservation or similar ordinance that protects a particular biological resource. However, the City is a Permittee to the CVMSHCP/NCCP and it cooperates with the Agua Caliente Band of Cahuilla Indians to assure development projects on tribal lands in the City abide by the provisions of the Tribal HCP.

As with the Proposed Project, Alternative 1 would be subject to the Biological Resources Sub-Element of the General Plan Update includes Programs 1.B, 1.D, 1.E, and 4.A that support the City's continued participation in implementation of the above-referenced HCPs. Future development facilitated by Alternative 1 would be required to mitigate impacts to Covered species through the payment of local development mitigation fees (Mitigation Measures BIO-1 and BIO-2). Development within or adjacent to a CVMSHCP Conservation area would be subject to land use adjacency guidelines (BIO-1). Alternative 1 will continue to implement all the above-mentioned plans and policies and, therefore, impacts would be less than significant.

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

The City is a Permittee to the CVMSHCP/NCCP and cooperates with the Agua Caliente Band of Cahuilla Indians to implement the Tribal HCP on tribal lands within City boundaries. Alternative 1 would be subject to General Plan Programs 1.B, 1.D, 1.E, and 4.A that provide for the City's continued participation in both HCPs, including requiring future development projects to pay local development mitigation fees and protection of CVMSHCP Conservation Areas through implementation of land use adjacency guidelines (Mitigation Measures BIO-1 and BIO-2). Consistent with the Proposed Project, Alternative 1 would not conflict with the provisions of either plan; no impact would occur.

3.5.3.1.2. Alternative 1 Mitigation Measures

The same mitigation measures provided in Section 2.5 for the Proposed Project would also apply to Alternative 1.

3.5.3.1.3. Alternative 1 Significance After Mitigation

After implementation of the above-referenced mitigation measures, biological resource-related impacts of Alternative 1 would be less than significant.

3.5.3.1.4. Alternative 1 Cumulative Impacts

Alternative 1 would have the same cumulative impacts as the proposed General Plan update because the City would continue to require project-specific biological evaluations and mitigation measures, where necessary, for individual projects to minimize impacts at the local level. Therefore, the impacts of Alternative 1 on biological resources would not be cumulatively considerable.

3.5.3.2. Alternative 2

Alternative 2, also known as the "less intense alternative," will result in decreased land use densities. However, the same General Plan planning area as the Proposed Project will be affected.

3.5.3.2.1. Alternative 2 Impacts

Would Alternative 2:

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

As described in Section 2.5, the General Plan planning area contains or potentially contains numerous sensitive species, including some designated as endangered or threatened by the USFWS and CDFW. Some have been identified for conservation or protection in the CVMSHCP and Agua Caliente Tribal HCP, and some are subject to land management policies and plans of the BLM and other regulatory agencies.

Similar to the proposed General Plan update, Alternative 2 would facilitate future urban development that could disturb or permanently remove sensitive species and/or their habitats. Future development projects facilitated under Alternative 2 would be evaluated on a project-by-project basis for potential adverse impacts to sensitive species and required to implement mitigation measures, as needed. Overall, as is the case for the Proposed Project, with the implementation of Mitigation Measures set forth in Section 2.5.7 (BIO-1 through BIO-6), potential impacts to sensitive species associated with the Alternative 2 would be less than significant, and consistent with the impacts of the Proposed Project.

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

As with the proposed General Plan Update, Alternative 2 would facilitate future development that could impact riparian habitat. As in the case for the Proposed Project, impacts would be minimized by implementation of General Plan Biological Resources Sub-Element Policy 2, which requires the City to evaluate development projects for their impacts on existing habitat and wildlife, and for the land's value as viable open space. The City may require site-specific biological assessments to evaluate potential impacts to riparian habitat and the need for mitigation measures. Consistent with the Proposed Project, project-specific impacts would be less than significant with implementation of Mitigation Measures BIO-7 through BIO-10 (see Section 2.5.7).

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

As with the proposed General Plan update, Alternative 2 would facilitate new development in the planning area which could permanently or temporarily impact wetlands under state or federal jurisdiction. Policy 10 of the General Plan Water Resources Sub-Element requires new development to protect the quality of water bodies and natural drainage systems through sign design, source controls, storm water treatment, runoff reduction measures, and best management practices. The City may require assessments of hydrologic and habitat conditions to determine whether and to what extent future development projects will impact protected wetlands, as well as the need for mitigation (see Mitigation Measures BIO-7 through BIO-10). Implementation of these measures will reduce potential impacts of future development on protected wetlands to less than significant levels. These impacts are consistent with impacts of the Proposed Project.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The City contains no natural aquatic resources that could support fish; therefore, Alternative 2 will have no impact on the movement of fish species.

Under Alternative 2, development could result in the construction of barriers to wildlife movement, such as fences, walls, buildings, and roads. Development within and adjacent to CVMSHCP Conservation Areas is subject to land use adjacency guidelines, which could also reduce potential impacts.

Future development facilitated by Alternative 2 could impact nesting birds if construction occurs in the spring; however, implementation of MBTA surveys (Mitigation Measure BIO-4) would reduce potential impacts to less than significant levels.

The General Plan Biological Resources Sub-Element includes Policy 3 and Program 3.A by which the City would encourage and cooperate with other agencies in establishing multiple-use corridors that take advantage of drainage channels and utility easements as wildlife movement corridors, public access ways, and linkages between open space areas and the built environment. Consistent with the Proposed Project, implementation of these measures would reduce potential impacts to less than significant levels.

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

As discussed in Section 2.5, the City does not have a tree preservation or similar ordinance that protects a particular biological resource. However, the City is a Permittee to the CVMSHCP/NCCP and it cooperates with the Agua Caliente Band of Cahuilla Indians to assure development projects on tribal lands in the City abide by the provisions of the Tribal HCP.

As with the Proposed Project, Alternative 2 would be subject to the Biological Resources Sub-Element of the General Plan Update includes Programs 1.B, 1.D, 1.E, and 4.A that support the City's continued participation in implementation of the above-referenced HCPs. Future development facilitated by Alternative 2 would be required to mitigate impacts to Covered species through the payment of local development mitigation fees (Mitigation Measures BIO-1 and BIO-2). Development within or adjacent to a CVMSHCP Conservation area would be subject to land use adjacency guidelines (BIO-1). Alternative 2 will continue to implement all the above-mentioned plans and policies and, therefore, impacts would be less than significant.

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

The City is a Permittee to the CVMSHCP/NCCP and cooperates with the Agua Caliente Band of Cahuilla Indians to implement the Tribal HCP on tribal lands within City boundaries. Alternative 2 would be subject to General Plan Programs 1.B, 1.D, 1.E, and 4.A that provide for the City's continued participation in both HCPs, including requiring future development projects to pay local development mitigation fees and protection of CVMSHCP Conservation Areas through implementation of land use adjacency guidelines (Mitigation Measures BIO-1 and BIO-2). Consistent with the Proposed Project, Alternative 2 would not conflict with the provisions of either plan; no impact would occur.

3.5.3.2.2. Alternative 2 Mitigation Measures

The same mitigation measures provided in Section 2.5 for the Proposed Project would also apply to Alternative 2.

3.5.3.2.3. Alternative 2 Significance After Mitigation

After implementation of the above-referenced mitigation measures, biological resource-related impacts of Alternative 2 would be less than significant.

3.5.3.2.4. Alternative 2 Cumulative Impacts

Alternative 2 would have the same cumulative impacts as the proposed General Plan Update because the City would continue to require project-specific biological evaluations and mitigation measures, where necessary, for individual projects to minimize impacts at the local level. Therefore, the impacts of Alternative 2 on biological resources would not be cumulatively considerable.

3.5.3.3. Alternative 3

Alternative 3, also known as the No Project alternative, will result in buildout of the existing General Plan.

3.5.3.3.1. Alternative 3 Impacts

Would Alternative 3:

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

As described in Section 2.5, the General Plan planning area contains or potentially contains numerous sensitive species, including some designated as endangered or threatened by the USFWS and CDFW. Some have been identified for conservation or protection in the CVMSHCP and Agua Caliente Tribal HCP, and some are subject to land management policies and plans of the BLM and other regulatory agencies.

Similar to the proposed General Plan Update, Alternative 1 would facilitate future urban development that could disturb or permanently remove sensitive species and/or their habitats. Future development projects facilitated under Alternative 1 would be evaluated on a project-by-project basis for potential adverse impacts to sensitive species and required to implement mitigation measures, as needed. Overall, as is the case for the Proposed Project, with the implementation of Mitigation Measures set forth in Section 2.5.7 (BIO-1 through BIO-6), potential impacts to sensitive species associated with the Alternative 1 would be less than significant, and consistent with the impacts of the Proposed Project.

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

As with the proposed General Plan Update, Alternative 3 would facilitate future development that could impact riparian habitat. As in the case for the Proposed Project, impacts would be minimized by implementation of General Plan Biological Resources Sub-Element Policy 2, which requires the City to evaluate development projects for their impacts on existing habitat and wildlife, and for the land's value as viable open space. The City may require site-specific biological assessments to evaluate potential impacts to riparian habitat and the need for mitigation measures. Consistent with the Proposed Project, project-specific impacts would be less than significant with implementation of Mitigation Measures BIO-7 through BIO-10 (see Section 2.5.7).

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

As with the proposed General Plan Update, Alternative 3 would facilitate new development in the planning area which could permanently or temporarily impact wetlands under state or federal jurisdiction. Policy 10 of the General Plan Water Resources Sub-Element requires new development to protect the quality of water bodies and natural drainage systems through sign design, source controls, storm water treatment, runoff reduction measures, and best management practices. The City may require assessments of hydrologic and habitat conditions to determine whether and to what extent future development projects will impact protected wetlands, as well as the need for mitigation (see Mitigation Measures BIO-7 through BIO-10). Implementation of these measures will reduce potential impacts of future development on protected wetlands to less than significant levels. These impacts are consistent with impacts of the Proposed Project.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The City contains no natural aquatic resources that could support fish; therefore, Alternative 3 will have no impact on the movement of fish species.

Under Alternative 3, development could result in the construction of barriers to wildlife movement, such as fences, walls, buildings, and roads. Development within and adjacent to CVMSHCP Conservation Areas is subject to land use adjacency guidelines, which could also reduce potential impacts.

Future development facilitated by Alternative 3 could impact nesting birds if construction occurs in the spring; however, implementation of MBTA surveys (Mitigation Measure BIO-4) would reduce potential impacts to less than significant levels.

The General Plan Biological Resources Sub-Element includes Policy 3 and Program 3.A by which the City would encourage and cooperate with other agencies in establishing multiple-use corridors that take advantage of drainage channels and utility easements as wildlife movement corridors, public access ways, and linkages between open space areas and the built environment. Consistent with the Proposed Project, implementation of these measures would reduce potential impacts to less than significant levels.

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

As discussed in Section 2.5, the City does not have a tree preservation or similar ordinance that protects a particular biological resource. However, the City is a Permittee to the CVMSHCP/NCCP and it cooperates with the Agua Caliente Band of Cahuilla Indians to assure development projects on tribal lands in the City abide by the provisions of the Tribal HCP.

Alternative 3 is currently subject to the Biological Resources Sub-Element of the General Plan update includes Programs 1.B, 1.D, 1.E, and 4.A that support the City's continued participation in implementation of the above-referenced HCPs. Future development facilitated by Alternative 3 would be required to mitigate impacts to Covered species through the payment of local development mitigation fees (Mitigation Measures BIO-1 and BIO-2). Development within or adjacent to a CVMSHCP Conservation area would be subject to land use adjacency guidelines (BIO-1). Alternative 3 will continue to implement all the above-mentioned plans and policies and, therefore, impacts would be less than significant.

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

The City is a Permittee to the CVMSHCP/NCCP and cooperates with the Agua Caliente Band of Cahuilla Indians to implement the Tribal HCP on tribal lands within City boundaries. Alternative 3 would continue to implement General Plan Programs 1.B, 1.D, 1.E, and 4.A that provide for the City's continued participation in both HCPs, including requiring future development projects to pay local development mitigation fees and protection of CVMSHCP Conservation Areas through implementation of land use adjacency guidelines (Mitigation Measures BIO-1 and BIO-2). Consistent with the Proposed Project, Alternative 3 would not conflict with the provisions of either plan; no impact would occur.

3.5.3.3.2. Alternative 3 Mitigation Measures

The same mitigation measures provided in Section 2.5 for the Proposed Project would also apply to Alternative 3.

3.5.3.3.3. Alternative 3 Significance After Mitigation

After implementation of the above-referenced mitigation measures, biological resource-related impacts of Alternative 3 would be less than significant.

3.5.3.3.4. Alternative 3 Cumulative Impacts

Alternative 3 would have the same cumulative impacts as the proposed General Plan Update because the City would continue to require project-specific biological evaluations and mitigation measures, where necessary, for individual projects to minimize impacts at the local level. Therefore, the impacts of Alternative 3 on biological resources would not be cumulatively considerable.

3.5.4. Environmental Superior Alternative

All Alternatives, including the Proposed Project, encompass the same planning area and propose to develop the same parcels. The difference in buildout intensities and whether or not a parcel would develop into the same land use is irrelevant to biological resources.

Alternative 3, the No Project Alternative, is the least preferred alternative because the existing programs under Policy 1 would not be updated to include Program 1.E or 1.F, which ensure that impacts to Tribal conservation lands and Casey's June Beetle are managed properly and efficiently. All other Alternatives, including the Proposed Project, would include these updated programs and thus are equally environmentally superior to Alternative 3.

3.6. Cultural and Tribal Resources

3.6.1. Introduction

This section of the EIR analyzes the potential impacts associated with the Project alternatives based on cultural resources in the area. It also addresses impacts associated with tribal cultural resources as a result of implementing proposed alternatives.

3.6.2. Existing Conditions

As discussed in Section 2.6 of this EIR, the base of the San Jacinto and Santa Rosa Mountains and mesquite dunes between Seven Palms Valley and Edom Hill areas are highly sensitive for prehistoric archaeological resources. The valley floor, however, demonstrates low sensitivity for prehistoric archaeological resources as it would have offered few resources for native settlements.

According to the EIC, most surveys have been conducted in the northern portion of the planning area on the valley floor and in the Indio Hills; a few have been conducted in the urban core. Only one prehistoric site (CA-RIV-2171), a rock ring feature, has been recorded into the California Historical Resource Information System (CHRIS); its location is kept confidential for its protection. Another prehistoric site in the vicinity of Willow Hole has been reported by the Coachella Valley Archaeological Society, but it has not been recorded.

Six locations of potential Native American cultural significance, listed in Table 2.6-1and shown on Exhibit 2.6-1 and discussed in Section 2.6, have been identified by anthropologists and Cahuilla cultural authorities. Four are located along the base of the San Jacinto and Santa Rosa Mountains, one in the Whitewater River in the same general vicinity, and one near Edom Hill.

3.6.3. Alternatives Impact Analysis

3.6.3.1. Alternative 1

3.6.3.1.1. Alternative 1 Impacts

Cultural Resources

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

Currently, the majority of the City is developed and includes several historic properties that have been recorded in the California Historical Resource Information Center, although some have been demolished or significantly altered. The proposed General Plan is a policy document that will not, in and of itself, result in physical changes to a historical resource. Similar to the Proposed Project, the area that could be developed under Alternative would be the same as for the Proposed Project and therefore the potential impacts to historical resources would be the same. New developments under Alternative 1 would be expected to conform to the Cultural Resources Sub-Element policies and programs set forth in the proposed General Plan update, which include strict programs and permitting processes to secure the historical resources. Impacts associated with this alternative could be mitigated as discussed in Section 2.6.7.

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

The planning area includes known archaeological resources and areas of potential Native American cultural significance. It includes land within the Agua Caliente Band of Cahuilla Indians Reservation and the Traditional Use Area of Native Americans. Similar to the Proposed Project, there is a potential for archaeological resources to be uncovered during ground-disturbing activities under Alternative 1. Potential impacts are not expected to be significant because the Cultural Resources Sub-Element in the General Plan includes policies and programs to protect the archaeological resource. In addition, to reduce the potential impact to less than significant, Mitigation Measures were provided in Section 2.6.7 for the Proposed Project, require worker education and monitoring if resources are identified, which will also be applicable to Alternative 2. With implementation of General Plan policies and Section 2.6.7 mitigation measures, impacts associated with archaeological resources would be less than significant, and consistent with the Proposed Project.

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

Under Alternative 1, the planning area will be developed with a mixed of land uses comparable to that set forth in the Proposed Project. Under Alternative 1, the potential exists for human remains to be unearthed during ground disturbance activities, such as grading and or other sub-surface excavations or disturbances. To reduce the impact to less than significant levels, Mitigation Measures are provided in Section 2.6.7, which will be applicable to this alternative and will reduce impacts to less than significant levels, as it will under the Proposed Project.

Tribal Resources

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Construction-related activities under the Alternative 1 would be the same as those under the proposed General Plan update, including demolition, grading, excavation, infrastructure improvements, and new building construction. Depths of construction activities, and requirements for tribal cultural resources and ground investigation, would be similar to those associated with the Proposed Project and therefore would result in similar impacts to cultural resources, particularly with regard to tribal cultural resources. Tribal cultural resources are generally addressed on a site-by- site basis, and the probability of uncovering new resources or disturbing known resources is considered during project-level environmental review, including subsurface investigations (as warranted). As such, impacts to tribal cultural resources under the Alternative 1 would be less than significant and comparable to impacts identified for the proposed General Plan update. The mitigation measures provided for the Proposed Project will also be applicable to this alternative.

3.6.3.1.2. Alternative 1 Mitigation Measures

With the implementation of the mitigation measures set forth in Section 2.6.7 of this EIR, application of relevant policies and programs set forth in the Cultural Resources Sub-Element of the proposed General Plan and compliance with standard conditions applied to development projects, no significant adverse impacts to cultural resources, including the tribal cultural resources, are anticipated.

3.6.3.1.3. Alternative 1 Significance After Mitigation

Residual environmental effects associated with the implementation of the Alternative 1 project would essentially be the same as those for the Proposed Project. Through the implementation of the applicable General Plan policies and programs, and the mitigation measures set forth in Section 2.6.7 of this EIR, potential impacts can be avoided, minimized and/or reduced to levels that are less than significant.

3.6.3.1.4. Alternative 1 Cumulative Impacts

A consideration of cumulative effects associated with cultural resources includes the degree to which a project may contribute to the cumulative impacts from cultural, historical, and tribal resources. Future development associated with the Alternative 1 project would involve grading and excavation activities on individual sites, which could impact buried cultural, historical, and tribal resources. Alternative 1 would contribute considerably to cumulative impacts if it were to have a substantial or significant adverse effect on such resources in the Coachella Valley.

As discussed above and Section 2.6.5, cultural, historical, and archaeological resources are identified in the planning area. The City also has few areas located within the traditional use area of the Cahuilla people, and mitigation measures are provided to reduce any potential impacts to buried resources, which will also reduce cumulative impacts to less than considerable levels. The proposed General Plan update also contains policies to protect cultural resources, including historical, archaeological, and tribal. Compliance with those policies and the recommendations of individual cultural resources investigations would reduce impacts. Overall, the Alternative 1 project will not significantly increase the community impacts to cultural resources in the Coachella Valley. Therefore, there would be no cumulatively considerable impacts associated with the implementation of the Alternative 1 project.

3.6.3.2. Alternative 2

3.6.3.2.1. Alternative 2 Impacts

Cultural Resources

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

As discussed in Section 2.6.5, the majority of the planning area is already developed. The City includes several historic properties that have been recorded in the California Historical Resource Information Center, although some have been demolished or significantly altered. The proposed General Plan is a policy document that will not, in and of itself, result in physical changes to an historical resource. Similar to the Proposed Project, the Alternative 2 land uses and extent of development in this area would be comparable to the Proposed Project and therefore the potential impacts to historical resources would be the same. New developments under Alternative 2 would be expected to conform to the Cultural Resources Sub-Element policies and programs set forth in the proposed General Plan update, which include strict programs and permitting processes to protect historical resources. Impacts associated with this alternative could be mitigated as discussed in Section 2.6.7.

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

As discussed in Section 2.6.5, the planning area includes known archaeological resources and areas of potential Native American cultural significance. It includes land within the Agua Caliente Band of Cahuilla Indians Reservation and the Traditional Use Area of Native Americans. Similar to the Proposed Project, there is a potential for archaeological resources to be uncovered during ground-disturbing activities under this alternative. Potential impacts are not expected to be significant because the Cultural Resources Sub-Element in the General Plan includes

policies to protect archaeological and other cultural resource. In addition, to reduce the potential impact to levels that are less than significant, mitigation measures were provided in Section 2.6.7 for the Proposed Project, requiring worker education and monitoring if the potential for resources is identified, which will also be applicable to Alternative 2. With implementation of General Plan policies and Section 2.6.7 mitigation measures, impacts associated with archaeological resources would be less than significant, and consistent with the Proposed Project.

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

Under Alternative 2, the planning area will be developed with a mixed of land uses comparable to that set forth in the Proposed Project. Under Alternative 2, the planning area that would be developed has the potential to unearthed human remains during ground disturbance activities, such as grading and sub-surface excavation. To reduce the impact to less than significant levels, mitigation measures are provided in Section 2.6.7, which will be applicable to this alternative and will reduce impacts to less than significant levels, as it will under the Proposed Project.

Tribal Resources

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Construction-related activities under the Alternative 2 would be the same as under the Proposed Project, including demolition, grading, new building construction and other site disturbance. Depths of construction activities, and requirements for cultural resources investigations and monitoring, would be similar and therefore would result in similar impacts comparable to those identified for the proposed General Plan update, particularly with regard to tribal cultural resources. Tribal cultural resources are generally addressed on a site-by- site basis, and the probability of uncovering new resources or disturbing known resources is considered during project-level environmental review, including subsurface investigations (as warranted). As such, impacts to tribal cultural resources under the Alternative 2 would be less than significant and comparable to impacts identified for the proposed General Plan. The mitigation measures provided for the Proposed Project will also be applicable to this alternative.

3.6.3.2.2. Alternative 2 Mitigation Measures

With the implementation of the mitigation measures set forth in Section 2.6.7 of this EIR, relevant policies and programs set forth in the Cultural Resources Sub-Element of the proposed General Plan update, and compliance with the standard development conditions, no significant adverse impacts on cultural resources, including the tribal cultural resources, are anticipated.

3.6.3.2.3. Alternative 2 Significance After Mitigation

Residual environmental effects associated with the implementation of the Alternative 2 project would essentially be the same as those for the Proposed Project. Through the implementation of applicable General Plan policies and programs, and the mitigation measures set forth in Section 2.6.7 of this EIR, potential impacts can be avoided, minimized and/or reduced to levels that are less than significant.

3.6.3.2.4. Alternative 2 Cumulative Impacts

Cumulative impacts associated with cultural resources include those affecting cultural, historical, and tribal resources. Future development under Alternative 2 project would involve grading, and excavation and other site disturbance on individual sites, which could impact buried cultural, historical, and tribal resources. Alternative 2 would contribute considerably to cumulative impacts if it were to have a substantial or significant adverse effect on such resources in the City and elsewhere in the Coachella Valley.

As discussed above and Section 2.6.5, cultural, historical, and archaeological resources have been identified in the planning area. The City also has few areas located within the traditional use area of the Cahuilla people, and mitigation measures are provided to reduce any potential impacts to buried resources, which will also reduce cumulative impacts to less than considerable levels. The proposed General Plan update also contains policies to protect cultural resources, including historical, archaeological, and tribal. Compliance with those policies and the recommendations of individual cultural resources investigations would avoid or greatly reduce impacts. Overall, the Alternative 2 project will not significantly increase the community impacts to cultural resources in the Coachella Valley. Therefore, there would be no cumulatively considerable impacts associated with the implementation of the Alternative 2 project.

3.6.3.3. Alternative 3

3.6.3.3.1. Alternative 3 Impacts

Cultural Resources

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

As discussed in Section 2.6.5, majority portions of the City are already developed. Identified historic properties have been recorded in the California Historical Resource Information Center, although some have been demolished or significantly altered. The proposed General Plan is a policy document that will not, in and of itself, result in physical changes to a historical resource. Similar to the Proposed Project, areas subject to site disturbance and development under Alternative 3 would be the same as for the Proposed Project and therefore the potential impacts to historical resources would be the same. New developments under Alternative 3 would be subject to the same strict programs and permitting processes to protect the historical resources. Impacts associated with this alternative could be mitigated as discussed in Section 2.6.7.

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

As discussed in Section 2.6.5, the planning area includes known archaeological resources and areas of potential Native American cultural significance. It includes land within the Agua Caliente Band of Cahuilla Indians Reservation and the Traditional Use Area of Native Americans. Similar to the Proposed Project, there is a potential for archaeological resources to be uncovered during ground-disturbing activities under this alternative. Potential impacts are not expected to be significant because ground disturbing activities are subject to the same policies, regulations and mitigation measures meant to protect the archaeological and other cultural resource.

In addition, to reduce the potential impact to less than significant, Mitigation Measures were provided in Section 2.6.7 for the Proposed Project, requiring worker education and monitoring if the potential for sensitive resources are identified, and would also be applicable to Alternative 3. With implementation of proposed General Plan policies and Section 2.6.7 mitigation measures, Alternative 3 impacts associated to archaeological resources would be less than significant, and consistent with the Proposed Project.

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

Under Alternative 3, the planning area will be developed with a mixed of land uses comparable to that set forth in the Proposed Project. Under Alternative 3, the planning area that would be developed has the potential to unearthed human remains during ground disturbance activities, such as grading and sub-surface excavation. To reduce the impact to less than significant levels, mitigation measures are provided in Section 2.6.7, which will be applicable to this alternative and will reduce impacts to less than significant levels, as it will under the Proposed Project.

Tribal Resources

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Construction-related activities under the Alternative 3 would be the same as under the Proposed Project, including demolition, grading, new building construction and other site disturbance. Depths of construction activities, and requirements for cultural resources investigations and monitoring, would be similar and therefore would result in avoidance and minimization of impacts comparable to the proposed General Plan update, particularly with regard to tribal cultural resources. Tribal cultural resources are generally addressed on a site-by- site basis, and the probability of uncovering new resources or disturbing known resources is considered during project-level environmental review, including subsurface investigations (as warranted). As such, impacts to tribal cultural resources under the Alternative 3 would be less than significant and comparable to impacts identified for the proposed General Plan. The mitigation measures provided for the Proposed Project will also be applicable to this alternative.

3.6.3.3.2. Alternative 3 Mitigation Measures

With the implementation of the mitigation measures set forth in Section 2.6.7 of this EIR and relevant policies and programs set forth in the Cultural Resources Sub-Element of the in the proposed General Plan and compliance with the standard development conditions, no significant adverse impacts on cultural resources, including the tribal cultural resources, are anticipated.

3.6.3.3.3. Alternative 3 Significance After Mitigation

Residual environmental effects associated with the implementation of the Alternative 3 project would essentially be the same as those for the Proposed Project. Through the application of the applicable General Plan policies and programs, and the mitigation measures set forth in Section 2.6.7 of this EIR, potential impacts can be avoided, minimized and/or reduced to levels that are less than significant.

3.6.3.3.4. Alternative 3 Cumulative Impacts

Cumulative impacts associated with cultural resources include those affecting cultural, historical, and tribal resources. Future development under the Alternative 3 project would involve grading, and excavation and other site disturbance on individual sites, which could impact buried cultural, historical, and tribal resources. Alternative 3 would contribute considerably to cumulative impacts if it were to have a substantial or significant adverse effect on such resources in the City, and in conjunction with such impacts elsewhere in the Coachella Valley.

As discussed above and Section 2.6.5, cultural, historical, and archaeological resources have been identified in the planning area. The City also has few areas located within the traditional use area of the Cahuilla people, and mitigation measures are provided to reduce any potential impacts to buried resources, which will also reduce cumulative impacts to less than considerable levels. The proposed General Plan update also contains policies to protect cultural resources, including historical, archaeological, and tribal. Compliance with those policies and the recommendations of individual cultural resources investigations would avoid or greatly reduce impacts. Overall, the Alternative 3 project will not significantly increase the community impacts to cultural resources in the Coachella Valley. Therefore, there would be no cumulatively considerable impacts associated with the implementation of the Alternative 3 project.

3.6.4. Environmental Superior Alternative

Of the four alternatives, Alternative 2 is marginally environmentally superior to the others with respect to potential impacts to cultural or tribal resources. This is due to the limited reduction in potential site disturbance on lands located between the UPRR lines and US Interstate-10. It can be argued that, overall, the Proposed Project is environmentally superior because it sets forth more stringent programs and policies to regulate construction activities and protect cultural resources.

3.7. Energy and Mineral Resources

3.7.1. Introduction

This section of the EIR analyzes the potential impacts associated with the alternatives to the proposed Cathedral City General Plan Update based on regional and local energy and mineral resources. In the Coachella Valley, energy resources are widely distributed, with wind turbine development focused in the San Gorgonio Pass area and extending east to the west slope of Edom Hills, extensive geothermal energy development at the south end of the Salton Sea and extensive solar photovoltaic systems built across the valley. Solar photovoltaic systems have been and are continuing to be developed throughout the Valley on various scales, from individual residential to utility-scale systems. There are no known fossil energy resources (coal, oils, natural gas) know to occur in the Coachella Valley or the region.

The valley is an important source of mineral resources that are largely associated with fluvial deposits and are limited to sand and gravel used for a variety of construction projects and products, including concrete and asphalt. These resources occur across the valley and are most developed in the Indio Hills, Mecca Hills and foothills of the Little San Bernardino Mountains.

3.7.2. Existing Conditions

The nearest Mineral Resource Zone to Cathedral City is in the Indio Hills near the community of Thousand Palms and north of the city's sphere-of-influence (SOI). It contains an area designated MRZ-2a PCC-3. This 50.5±-acre site was reclassified from MRZ-2 in California Geological Survey Special Report 159 to MRZ-2a for PCC-grade aggregate in Special Report 198. The E.L. Yeager Construction Company is permitted to mine in this area. However, there are no mapped or exploited mineral resources in the City or its SOI.

The Coachella Valley region has seen major developments in wind energy; the region is known internationally for the scale of wind resource development. The western Coachella Valley is a proven wind resource area, where strong and sustained winds are channeled through the San Gorgonio Pass and into the valley. Today, the San Gorgonio Pass is home to one of the nation's largest wind farms; it includes more than 2,299 wind turbines, with a total capacity of 665 megawatts.[1]

Eight wind turbines currently operate in Cathedral City on Edom Hill (BLM lands), with a capacity of approximately 2.5 megawatts. These turbines are three-blade, horizontal axis machines with galvanized or painted steel towers; larger turbines can exceed 300 feet in overall height.

To conserve the natural energy and mineral resources, Cathedral City has implemented the *Green for Life* energy conservation and renewable energy installation program on City facilities and encouraged these activities throughout the community.

3.7.3. Alternatives Impact Analysis

3.7.3.1. Alternative 1

3.7.3.1.1. Alternative 1 Impacts

Mineral Resources

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

[1] United States Wind Turbine Database - USGS Energy Resources, July 2018

The City contains no known, commercially retrievable mineral resources. Future development and redevelopment facilitated by the Alternative 1 could result in comparable demand for sand and gravel resources for roadways, infrastructure, and building construction as compare to the Proposed Project. While Alternative 1 would result in a greater number of residential units, it would also result in less industrial development compared to the Proposed Project. Sand and gravel resources needed for future development will be derived from the region's substantial long-term supply. The demand associated with Alternative 1 would not be considered significant when compared to available regional resources. As discussed in Section 2.7.5, PCC-grade aggregate reserves in the Palm Springs Production-Consumption Region are projected to be enough to meet future demand in the region through the year 2038 and well beyond. Alternative 1 would result demand comparable to the Proposed Project, and impacts would not be significant. Mitigation identified in Chapter 2.7.7 would further reduce impacts to these resources.

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

The General Plan planning area does not contain any locally important mineral resource recovery sites, and none are delineated on the current General Plan or resource mapping developed by the State of California. Therefore, no impact is anticipated.

Energy Resources

Would the Project:

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

Similar to the Proposed Project, development of land uses as designated in the Alternative 1 would require energy for construction and operation, and transportation thereby increasing energy demand in the City. To accommodate the projected development, Alternative 1 would result in an annual demand for approximately 705,966,600 kwh of electricity and 16,455,852 therms of natural gas. Furthermore, implementation of Alternative 1 has the potential to generate approximately 7,399,781 daily vehicle miles traveled (VMTs), resulting in a demand of 112,538,336 gallons of gasoline/diesel (fuel) annually. Alternative 1 would increase the demand for electricity, natural gas and fuel by 8,9509,00 kWh, 309,484 therms, and 2,157,104 gallons of fuel, respectively, when compared the Proposed Project. Therefore, compared to the Proposed Project, the Alternative 1 would result in an increased demand for energy. Although impacts would be increased under Alternative 1, the same General Plan policies and mitigation measures set forth in Section 2.7 would apply and reduce impacts related to energy consumption to less than significant levels.

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

Similar to the Proposed Project, Alternative 1 would not interfere with any state or local plan that promotes renewable energy or energy efficiency. The General Plan itself includes policies in the Energy and Mineral Resources Sub-Element, Circulation and Mobility Element and Community Design Element that encourage energy conservation in new development and the City's transportation system, and reduce energy usage by encouraging greater energy efficiency and alternative energy sources.

3.7.3.1.2. Alternative 1 Mitigation Measures

With the implementation of the mitigation measures set forth in Section 2.7.7 of this EIR and relevant policies and programs set forth in the Energy and Mineral Resources Sub-Element of the proposed General Plan and compliance with the standard conditions, no significant adverse impacts on energy and mineral resources are anticipated.

3.7.3.1.3. Alternative 1 Significance After Mitigation

Impacts would be reduced to less than significance levels with mitigations.

3.7.3.1.4. Alternative 1 Cumulative Impacts

Cumulative impacts related to energy resources would be slightly greater than those of the Proposed Project, as discussed in Section 2.7.6, while impacts to mineral resources would be comparable to those for the proposed General Plan. For both energy and mineral resources, impacts will be less than significant with mitigation measures. Alternative 1 impacts to the substantial local mineral resource that will support continued development in the City and regionally will not be cumulatively considerable. Alternative 1 impacts to finite energy resources will be much the same as those associated with the Proposed Project; however, in the Coachella Valley City and regional energy systems are rapidly evolving to the use of renewables, including wind, solar and geothermal that will support continued development in the City and regionally and reduce long-term demand for finite energy sources. Therefore, energy demand associated with the Alternative 1 project will not be cumulatively considerable.

3.7.3.2. Alternative 2

3.7.3.2.1. Alternative 2 Impacts

Mineral Resources

c) 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?

As discussed above in Section 3.7.3.1, the City contains no known commercially viable mineral resources. Future development and redevelopment facilitated under the less intense Alternative 2 scenario would result in lower demand for sand and gravel resources for roadways, infrastructure, and building construction as compare to the Proposed Project primarily due to fewer number of the residential units. These resources could be derived from the regional Coachella Valley market, but the demand for sand and gravel resources would not be considered significant when compared to available regional resources. As discussed in Section 2.7.6, PCC-grade aggregate reserves in the Palm Springs Production-Consumption Region are projected to be enough to meet future demand in the region through the year 2038 and well beyond. Although, this alternative would result in fewer impacts compared to the Proposed Project, impacts would still be considered significant and the mitigation identified in Section 2.7.7 would be required. Impacts to these mineral resources from implementation of the Alternative 2 project would be less than significant.

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

The General Plan planning area does not contain any locally important mineral resource recovery sites, and none are delineated on the current General Plan or resource mapping developed by the State of California. Therefore, no impact is anticipated.

Energy Resources

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

Similar to the Proposed Project, development of land uses as designated in the Alternative 2 would require energy for construction and operation, thereby increasing energy demand in the City. Alternative 2 would result in an annual demand of approximately 657,773,000 kwh of electricity and 14,934,660 therms of natural gas. Furthermore, implementation of Alternative 2 has the potential to generate approximately 6,998,265 daily VMTs, resulting in a demand for 106,431,947 gallons of petroleum-based fuel annually.

The demand for electricity, natural gas and fuel would decrease under Alternative 2 by 39,242,700 kWh, 1,211,708 therms , and 3,949,285 gallons of fuel, respectively, compared to the Proposed Project. Therefore, compared to the Proposed Project, Alternative 2 would result in a decreased demand for energy. The same General Plan policies and programs, and the mitigation measures set forth in Section 2.7.7, would apply and further reduce impacts related to energy consumption to less than significant levels.

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

Similar to the Proposed Project, Alternative 2 would not interfere with any state or local plan that promotes renewable energy or energy efficiency. The General Plan itself includes policies in the Energy and Mineral Resources Sub-Element to encourages energy conservation in new development and the City's transportation system and reduce energy usage by encouraging alternative energy sources.

3.7.3.2.2. Alternative 2 Mitigation Measures

With the implementation of the mitigation measures set forth in Section 2.7.7 of this EIR and relevant policies and programs set forth in the Energy and Mineral Resources Sub-Element and other elements of the proposed General Plan, as well as compliance with the standard conditions of development, no significant adverse impacts on energy and mineral resources are anticipated.

3.7.3.2.3. Alternative 2 Significance After Mitigation

Impacts would be reduced to less than significance levels with mitigations.

3.7.3.2.4. Alternative 2 Cumulative Impacts

Cumulative impacts related to energy resources would be slightly greater than those of the Proposed Project, as discussed in Section 2.7.6, while impacts to mineral resources would be comparable to or lower than those for the proposed General Plan. For both energy and mineral resources, impacts will be less than significant with mitigation measures. Alternative 2 impacts to the substantial local mineral resource that will support continued development in the City and regionally will not be cumulatively considerable. Alternative 2 impacts to finite energy resources will be much the same as those associated with the Proposed Project; however, in the Coachella Valley City and regional energy systems are rapidly evolving to the use of renewables, including wind, solar and geothermal that will support continued development in the City and regionally and reduce long-term demand for finite energy sources. Therefore, energy demand associated with the Alternative 1 project will not be cumulatively considerable.

3.7.3.3. Alternative 3

3.7.3.3.1. Alternative 3 Impacts

Mineral Resources

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

As discussed above in Section 3.7.3.1., the City contains no known, commercially viable mineral resources. As compare to the Proposed Project, Alternative 3 would result in modestly lower demand for sand and gravel resources for roadways, infrastructure, and building construction due to fewer number of the residential units. Demand would not be considered significant when compared to available regional resources. As discussed in Section 2.7.6, PCC-grade aggregate reserves are sufficient to meet future demand well beyond the year 2038. Although, this alternative would result in fewer impacts compared to the Proposed Project, impacts would still be considered significant and the mitigation identified in Chapter 2.7.7 would be required. Impacts to these mineral resources from implementation of the Alternative 3 project would be less than significant.

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

As discussed above in Section 3.7.3.1., the planning area does not contain a locally important mineral resource recovery site, and none are delineated on the current General Plan, a specific plan, or other land use plan. Therefore, no impact is anticipated.

Energy Resources

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

Alternative 3 would require energy for construction and operation, and would result in an annual demand for approximately 670,594,900 kwh of electricity and 15,584,392 therms of natural gas. Alternative 3 also has the potential to generate approximately 7,346,153 daily VMTs, resulting in a demand for 111,722,744 gallons of fuel annually. Compared to the Proposed Project, the demand for electricity and natural gas would decrease under Alternative 3 by 26,420,800 kWh and 561,976 therms, respectively. However, fuel consumption would increase by approximately 1,341,512 gallons of fuel annually. This increase is fuel consumption is likely due to decreased land use efficiencies resulting in longer and more frequent vehicle trips.

Overall, Alternative 3 would result in a decreased demand for energy when compared to the Proposed Project. The same General Plan policies, and the mitigation measures set forth in Section 2.7.7, would apply and further reduce impacts related to energy consumption to less than significant levels.

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

Similar to the Proposed Project, Alternative 3 would not interfere with any state or local plan that promotes renewable energy or energy efficiency. The existing General Plan itself includes policies in the Energy and Mineral Resources Sub-Element to encourages energy conservation in new development and the City's transportation system and reduce energy usage by encouraging alternative energy sources.

3.7.3.3.2. Alternative 2 Mitigation Measures

With the implementation of the mitigation measures set forth in Section 2.7.7 of this EIR and relevant policies and programs set forth in the Energy and Mineral Resources Sub-Element of the in the proposed General Plan and compliance with the standard conditions, no significant adverse impacts on energy and mineral resources are anticipated.

3.7.3.3.3. Alternative 2 Significance After Mitigation

Impacts would be reduced to less than significance levels with mitigations.

3.7.3.3.4. Alternative 2 Cumulative Impacts

Cumulative impacts related to energy and mineral resources would be slightly greater than those of the Proposed Project, as discussed in Section 2.7.9. Therefore, impacts will be less than cumulatively significant with mitigation.

3.7.4. Environmental Superior Alternative

At buildout, Alternative 2 would result in the lowest electricity demand, natural gas demand, and VMTs, thus resulting in less intense impacts to energy and mineral resources thresholds. In this regard, Alternative 2 is the environmentally superior alternative compared to the other alternatives.

3.8. Geology and Soils

3.8.1. Introduction

This section of the EIR analyzes the potential impacts associated with the alternatives to the proposed Cathedral City General Plan Update based on regional and local geologic and soils conditions. Coachella Valley is under the influence of two major geologic fault zones: the San Andreas Fault Zone and San Jacinto Fault Zone. The nearest earthquake fault is the Banning branch of the San Andreas Fault Zone, which passes through the northeast corner of the city limits (see Exhibit 2-8-3 of this EIR) and is capable of generating magnitude 7.4 earthquake. Other faults in the planning area that could impact the City include the Mission Creek fault located 1.25± miles northeast of the city limits, and the easterly extension of the Garnet Hill Fault, which also passes through the planning area and move in sympathy with a fault rupture on either the Banning or Mission Creek faults to the north.

Regional soils range from rocky outcrops within the mountains bordering the valley to coarse gravels of mountain canyons and recently laid fine- and medium-grained alluvial (stream deposited) and aeolian (wind deposited) sediments on the central valley floor. The valley consists of a diverse range of rocks and sediments, which were formed or deposited over millions of years and provide important details about the geologic history of the region.

3.8.2. Existing Conditions

Local Geology and Soils
Cathedral City and the Coachella Valley lie in the Colorado Desert Geomorphic Province ranging in elevation from about 2,000 feet above mean sea level in the San Gorgonio Pass to 245± feet below mean sea level at the Salton Sea. Tectonically, the Coachella Valley is a deep fault graben formed by plate movement along the San Andreas Fault (SAF). The SAF is a complex strike-slip fault and is more correctly referred to as a fault "zone". Its motion is accommodated along a complex system of interrelated faults. Other faults influencing the Coachella valley include the San Jacinto Fault, a northwest/southeast trending fault located along the western front of the San Jacinto Mountains. During the offset along San Andrea Fault system and associated smaller faults, sediments have been eroded to fill the valley and subsequently uplifted as the Indio and Mecca Hills, which are now exposed. Erosion and valley fill has deposited as much as 12,000 feet of sediments in the basin. Local geological and soil conditions are discussed in detail in Section 2.8.5 and in the Geotechnical Sub-Element of the proposed General Plan.

The majority of the City is underlain by alluvium which has low potential to contain unique paleontological resources. These soils are predominately comprised of aeolian and dune deposit. These medium-grained soils are picked up and transported by strong winds emanating from the San Gorgonio Pass at the northwesterly edge of the Coachella Valley. These deposits are unconsolidated, generally well-sorted windblown sand. They are redistributed along the central valley floor where they form shifting sand dunes. Aeolian deposits are typically loose near the ground surface but become denser with increasing depth. Like alluvial deposits, they are generally suitable for use as compacted fill, as they can be readily compacted with a combination of thorough wetting and wheel rolling with rubber-tired construction equipment. These units typically have high permeabilities, and shrinkage of up to 30% can be expected upon compaction. The northern portions of the planning area are also comprised of unconsolidated fanglomerates that have been uplifted along with Edom Hill and the Indio Hills. In the southern-most portions of the City, soils include alluvial fan deposits emanating from numerous washes draining the Santa Rosa foot hills and rocky outcroppings of granitic rock that are part of the Palm Springs complex.

Seismic Faults and Groundshaking
The City is in Seismic Zone 4 with a high probability of significant seismic activity. The nearest active faults are capable of generating strong ground shaking, slope collapse, seismically induced ground cracking or buckling of the pathway associated with soils settlement or collapse, damage to shade structures and other vertical improvements associated with the planning area.

Other Geotechnical Hazards in the Planning Area
During liquefaction, soils lose their bearing or shear strength needed to support structural foundations and can cause structural failures. The potential for liquefaction is low to very low throughout most of the City due to the depth to groundwater. Also see Section 2.8. Strong ground shaking can result in unstable slope conditions, including rock falls and landslides. Development in these areas can also be impacted by seismically-induced settlement.

The City planning areas is susceptible to high winds, which are predominantly from the northwest and channeled through the San Gorgonio Pass. They pick up sands and silts from the alluvial plain and washes and carry them across the valley floor. Wind erosion is a serious environmental problem in the valley often resulting in soil degradation, damage to cars and structures, and contributing to poor air quality. The General Plan planning area is located within *very severe* and *severe* wind erosion hazard zones.

Expansive soils contain significant amounts of clay particles and have the ability to give up water (shrink) or take on water (swell) and construction on these soils can result in structural and other damage. Minor amounts of clay present in the planning area are not considered a hazard to development in the planning area. The hazards associated with expansive soils in the City planning area are considered to be less than significant. Collapsible soils are unsaturated soils that exhibit a high strength when dry but experience a large and rapid volume reduction upon saturation, which can result in substantial structural damage. Collapsible soils were primarily found in the near surface of wind and water-deposited soils, and have been noted in the mid and east valley areas, including the City planning area. Also see Section 2-8.

Seiche refers to the seismically-induced oscillation or sloshing of water contained in an enclosed basin, such as a reservoir, pond, water storage tank, or swimming pool. The Desert Water Agency (DWA) owns four water reservoirs on elevated terrain in the Santa Rosa Mountains surrounding and near the Cathedral Canyon Cove. Damage to and/or failure of these tanks could result in inundation of homes and property in these areas of the City. Two water reservoirs owned by the Coachella Valley Water District (CVWD) are located on the north edge of Flat Top Mountain just south of Varner Road in the northern portion of the planning area..

The City planning area is comprised of bedrock and sedimentary soils (both fluvial and aeolian) that are not known to harbor paleontological resources. The potential for such resources to be impacted by development or other site disturbance facilitated by the Proposed Project and alternative projects is considered to be low.

3.8.3. Alternatives Impact Analysis

3.8.3.1. Alternative 1

3.8.3.1.1. Alternative 1 Impacts

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

The Banning branch of the San Andreas (Coachella Segment) Fault, runs through the northern portion of the planning area. Proposed land uses in this area would be the same as for the Proposed Project and therefore the potential impacts to these lands and future land uses would be the same. New developments under Alternative 1 would be expected to conform to the most recent California Building Codes, which include strict building specifications to ensure structural and foundational stability. Fault investigations may also be required depending on where structures are proposed. Impacts associated with this alternative could be mitigated as discussed in Section 2.8.

ii) Strong seismic ground shaking?

Buildout of the Alternative 1 will result in a limited increase in the number of residential units and commercial square footage within the City compared to the Proposed Project. In the event of an earthquake along nearby active faults near the planning area, development under the Alternative 1 could be subjected to the same ground motion as the Proposed Project. Seismic ground-shaking generated by San Andreas and San Jacinto Fault systems could pose hazards to existing and future development in the General Plan planning area, including damage to building foundations, frames, walls and columns, windows, chimneys, and ceilings, as well as improvements like roads, railroads, subsurface pipes, bridges, and utility infrastructure. As is the case for the Proposed Project, the risk of damage to Alternative 1 structures due to seismic hazards cannot be completely eliminated, but structure-specific geotechnical investigation and advanced building practices would minimize potential impacts from a seismic event.

iii) Seismic related ground failure, including liquefaction?

The majority of the City has no susceptibility, or low or very low liquefaction susceptibility. Alternative 1 hazards associated with liquefaction are the same as those described for the Proposed Project and are limited to a small area in the northern portion of the City where groundwater is diked by faults.

iv) Landslides?

The slopes of the Indio Hills and Santa Rosa Mountains are susceptible to seismically-induced rock fall and landslides. Slopes on Edom Hill and Flat-top Mountain are especially susceptible to landslides in a strong seismic event. Rockfall hazards are greatest along the slopes of the Santa Rosa foothills. Landslide and rockfall hazards for Alternative 1 are essentially the same as those associated with the Proposed Project. Also see Exhibit 2.8-3, which maps the landslide and rockfall hazards in the City.

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

As noted above and in Section 2.8, major portions of the City are susceptible to severe and very severe wind erosion. Implementation of the Alternative 1 would result in the same type and extent of erosion hazards that are expected with the implementation of the Proposed Project. Therefore, implementation of mitigation measures set forth in Section 2.8.7 and conformance with the policies and programs in the General Plan Geotechnical Sub-Element can ensure that significant impact can be avoided. Therefore, the Alternative 1 would result in potential impacts comparable to the Proposed Project.

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

See discussions in Sections 3.8.3.1.1. i through v, above. Alternative 1 exposures to these geotechnical hazards are comparable to those associated with the Proposed Project. Mitigation measures set forth in Section 2.8.7 and adherence to the policies and programs set forth in the Geotechnical Sub-Element will ensure that potentially significant impacts are avoided, minimized and otherwise mitigated.

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

The geotechnical hazards associated with expansive soils in the City are considered to be low and less than significant. In those very limited areas where this potential does exist, conventional soils analysis and foundation engineering will reduce any potential impacts to a level that is less than significant.

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

Implementation of the Alternative 1 would allow development of designated land uses in areas where soils are capable of supporting the use of waste water disposal systems. Similar to the Proposed Project, Alternative 1 would not allow installation of new septic tanks in those areas where prohibited by City Ordinance 572. All future development projects would be required to comply with all applicable regulations related to waste water disposal. Compliance with such regulations will ensure that impacts related to waste water disposal systems are less than significant. Therefore, as with the Proposed Project, Alternative 1 would not result in the construction of septic systems on lands incapable of supporting them.

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

Neither bedrock nor sedimentary soils occurring in the City planning area are expected to harbor sensitive paleontological resources. Therefore, impacts to these resources from implementation of the Alternative 1 project would be less than significant.

3.8.3.1.2. Alternative 1 Mitigation Measures

With the implementation of the mitigation measures set forth in Section 2.8.7 of this EIR and relevant policies and programs set forth in the Geotechnical Sub-Element of the in the proposed General Plan update and compliance with standard conditions of development, no significant adverse impacts associated with geology and soils are anticipated.

3.8.3.1.3. Alternative 1 Significance After Mitigation

Residual environmental effects associated with the implementation of the Alternative 1 project would essentially be the same as those for the Proposed Project. Through the implementation of applicable General Plan policies and programs, and the mitigation measures set forth in Section 2.8.7 of this EIR, potential impacts can be avoided, minimized and/or reduced to levels that are less than significant.

3.8.3.1.4. Alternative 1 Cumulative Impacts

A consideration of cumulative effects associated with geotechnical conditions includes the degree to which a project may contribute to the cumulative impacts from seismic events, surface soils, steep and unstable terrain and other conditions. Future development associated with the Alternative 1 project would involve grading and excavation activities on individual sites, which would result in changes to the area's existing geology and soils conditions. Development sites that are relatively flat would remain flat, while hillside development would require cut and fill, manufactured slopes, and changes to the natural topography. Compliance with the California Building Code (CBC) and the recommendations of individual geotechnical investigations would reduce geologic hazards to new development. Overall, the Alternative 1 project will not significantly increase the community impacts associated with prevailing geotechnical conditions in the Coachella Valley. Therefore, impacts would be comparable to those associated with implementation of the pursuant to the proposed 2040 General Plan Update and would not be cumulatively considerable.

3.8.3.2. Alternative 2

3.8.3.2.1. Alternative 2 Impacts

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Similar to the Proposed Project planning area, the Banning Branch of the San Andreas (Coachella Segment) Fault, runs through the northern portion of the Alternative 2 area. The Alternative 2 land uses in this area would be largely the same as for the Proposed Project excepting that there would be a reduction in mixed-use lands and commensurate reduction if commercial and residential potential, and an increase in industrial lands. Therefore, the potential impacts to these lands and future land uses would be somewhat less than for the Proposed Project. New developments under Alternative 2 would be expected to conform to the most recent California Building Codes, which include strict building specifications to ensure structural and foundational stability. Fault investigations may also be required depending on where structures are proposed. Impacts associated with this alternative could be mitigated as discussed in Section 2.8.7.

ii) Strong seismic ground shaking?

Buildout of the Alternative 2 will result in a decrease in the number of residential units and commercial square footage within the City compared to the Proposed Project. In the event of an earthquake along nearby active faults near the planning area, development under the Alternative 2 could be subjected to the same ground motion as the Proposed Project. Seismic ground-shaking generated by San Andreas and San Jacinto Fault systems could pose hazards to existing and future development in the General Plan planning area, including damage to building foundations, frames, walls and columns, windows, chimneys, and ceilings, as well as improvements like roads, railroads, subsurface pipes, bridges, and utility infrastructure. As is the case for the Proposed Project, the risk of damage to Alternative 2 structures due to seismic hazards cannot be completely eliminated, but structure-specific geotechnical investigation and advanced building practices would minimize potential impacts from a seismic event.

iii) Seismic related ground failure, including liquefaction?

As is the case for the Proposed Project, the majority of the City has no susceptibility, or low or very low liquefaction susceptibility. Alternative 2 hazards associated with liquefaction are the same as those described for the Proposed Project and are limited to a small area in the northern portion of the City.

iv) Landslides?

The slopes of the Indio Hills and Santa Rosa Mountains are susceptible to seismically-induced rock fall and landslides. Slopes on Edom Hill and Flat-top Mountain are especially susceptible to landslides in a strong seismic event. Rockfall hazards are greatest along the slopes of the Santa Rosa foothills. Landslide and rockfall hazards for Alternative 2 are essentially the same as those associated with the Proposed Project. Also see Exhibit 2.8-1, which maps the landslide and rockfall hazards in the City.

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

Implementation of the Alternative 2 would allow development of land uses that would result in construction and operational activities that would have the potential to expose topsoil to erosion from water or wind. Similar to the Proposed Project, major portions of the City are susceptible to severe and very severe wind erosion. Implementation of the Alternative 2 would result in the same type and extent of erosion hazards that are expected with the implementation of the Proposed Project. Therefore, implementation of mitigation measures set forth in Section 2.8.7 and conformance with the policies and programs in the General Plan Geotechnical Sub-Element can ensure that significant impact can be avoided. Therefore, the Alternative 2 would result in potential impacts comparable to the Proposed Project.

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

See discussions in Sections 3.8.3.1.1. i through v, above. Alternative 2 exposures to these geotechnical hazards are comparable to those associated with the Proposed Project. Mitigation measures set forth in Section 2.8.7 and adherence to the policies and programs set forth in the Geotechnical Sub-Element will ensure that potentially significant impacts are avoided, minimized and otherwise mitigated.

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

Similar to the propose project, the geotechnical hazards associated with expansive soils in the City are considered to be low and less than significant. In those very limited areas where this potential does exist, conventional soils analysis and foundation engineering will reduce any potential impacts to a level that is less than significant.

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

Implementation of the Alternative 2 would allow development of designated land uses in areas where soils are capable of supporting the use of waste water disposal systems. Similar to the Proposed Project, Alternative 2 would not allow installation of new septic tanks in those areas where prohibited by City Ordinance 572. All future development projects would be required to comply with all applicable regulations related to waste water disposal. Compliance with such regulations will ensure that impacts related to waste water disposal systems are less than significant. Therefore, as with the Proposed Project, Alternative 2 would not result in the construction of septic systems on lands incapable of supporting them.

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

The majority of City soils are composed of recently deposited alluvium which has a low potential to contain paleontological resources. Neither bedrock nor sedimentary soils occurring in the City planning area are expected to harbor sensitive paleontological resources. Therefore, impacts to these resources from implementation of the Alternative 2 project would be less than significant.

3.8.3.2.2. Alternative 2 Mitigation Measures

With the implementation of the mitigation measures set forth in Section 2.8.7 of this EIR and relevant policies and programs set forth in the Geotechnical Sub-Element of the proposed General Plan and compliance with standard development conditions, no significant adverse impacts on geology and soils are anticipated. Thus, no mitigation measures are required.

3.8.3.2.3. Alternative 2 Significance After Mitigation

Residual environmental effects associated with the implementation of the Alternative 2 project would essentially be the same as those for the Proposed Project. Through the application of the applicable General Plan policies and programs, and the mitigation measures set forth in Section 2.8.7 of this EIR, potential impacts can be avoided, minimized and/or reduced to levels that are less than significant.

3.8.3.2.4. Alternative 2 Cumulative Impacts

A consideration of cumulative effects associated with geotechnical conditions includes the degree to which a project may contribute to the cumulative impacts from seismic events, surface soils, steep and unstable terrain and other conditions. Future development associated with the Alternative 1 project would involve grading and excavation activities on individual sites, which would result in changes to the area's existing geology and soils conditions. Development sites that are relatively flat would remain flat, while hillside development would require cut and fill, manufactured slopes, and changes to the natural topography. Compliance with the CBC and the recommendations of individual geotechnical investigations would reduce geologic hazards to new development. Overall, the Alternative 1 project will not significantly increase the community impacts associated with prevailing geotechnical conditions in the Coachella Valley. Therefore, cumulative impacts would be comparable to those associated with implementation of the pursuant to the proposed General Plan and would not be cumulatively considerable.

3.8.3.3. Alternative 3 No Project

3.8.3.3.1. Alternative 3 Impacts

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Development under the No Project Alternative would modestly reduce the number of residential dwelling units at buildout. However, consistent with the Proposed Project, the Alternative 3 would designate the areas within the Alquist-Priolo Earthquake Fault Zone with the same land uses and potential development near fault rupture zones. Therefore, geologic hazards associated with rapture would be the same under the Alternative 3 as they would be for the Proposed Project.

New developments under Alternative 3 would be expected to conform to the most recent California Building Codes, which include strict building specifications to ensure structural and foundational stability. Impacts associated with this alternative could be mitigated to levels of insignificance as discussed in Section 2.8.7.

ii) Strong seismic ground shaking?

Buildout of the Alternative 3 will result in the extent and intensity of land uses compared to the Proposed Project. In the event of an earthquake along nearby active faults near the planning area, development under the Alternative 3 could be subjected to the same ground motion. Seismic ground-shaking generated by San Andreas and San Jacinto Fault systems could pose hazards to existing and future urban and infrastructure development in the General Plan area. As with the Proposed Project, the risk of damage to Alternative 3 structures due to seismic hazards cannot be completely eliminated, but structure-specific geotechnical investigation and advanced building practices would minimize potential impacts from a seismic event.

iii) Seismic related ground failure, including liquefaction*?*

The majority of the City has no susceptibility, or low to very low liquefaction susceptibility. The Alternative 3 scenario will be exposed to the same liquefaction hazards as those described for the Proposed Project and are limited to a small area in the northern portion of the City.

iv) Landslides?

The slopes of the Indio Hills and Santa Rosa Mountains are susceptible to seismically-induced rock fall and landslides. Slopes on Edom Hill and Flat-top Mountain are especially susceptible to landslides in a strong seismic event. Rockfall hazards are greatest along the slopes of the Santa Rosa foothills. Landslide and rockfall hazards for Alternative 1 are essentially the same as those associated with the Proposed Project. Also see Exhibit 2.8-3, which maps the landslide and rockfall hazards in the City.

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

Implementation of the Alternative 3 would result in the same type and extent of erosion hazards that are expected with the implementation of the Proposed Project. Therefore, implementation of mitigation measures set forth in Section 2.8.7 and conformance with the policies and programs in the General Plan Geotechnical Sub-Element can ensure that significant impact can be avoided or minimized. Therefore, the Alternative 3 would result in potential impacts comparable to the Proposed Project.

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

Under existing conditions, limited portions of the planning area are identified as being susceptible to landslides and subsidence. See discussions in Sections 3.8.3.1.1. i through v, above. Alternative 3 exposures to these geotechnical hazards are comparable to those associated with the Proposed Project. Mitigation measures set forth in Section 2.8.7 and adherence to the policies and programs set forth in the Geotechnical Sub-Element will ensure that potentially significant impacts are avoided, minimized and otherwise mitigated.

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

The geotechnical hazards associated with expansive soils in the City are considered to be low and less than significant. In those very limited areas where this potential does exist, conventional soils analysis and foundation engineering will reduce any potential impacts to a level that is less than significant.

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

Buildout of the existing General Plan, the Alternative 3 scenario, would allow development in areas where soils are capable of supporting the use of waste water disposal systems. Similar to the Proposed Project, Alternative 3 would not allow installation of new septic tanks in those areas where prohibited by City Ordinance 572. All future development projects would be required to comply with all applicable regulations related to waste water disposal. Compliance with such regulations will ensure that impacts related to waste water disposal systems are less than significant. Therefore, as with the Proposed Project, Alternative 3 would not result in the construction of septic systems on lands incapable of supporting them.

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

The majority of City soils are composed of recently deposited alluvium which has a low potential to contain paleontological resources. Neither bedrock nor sedimentary soils occurring in the City planning area are expected to harbor sensitive paleontological resources. Therefore, impacts to these resources from implementation of the Alternative 3 project would be less than significant.

3.8.3.3.2. Alternative 3 Mitigation Measures

Under this alternative, implementation of the relevant Geotechnical Sub-Element policies and programs in the proposed General Plan Update and compliance with the standard development conditions, would result in no unmitigated significant adverse impacts associated with City geology and soils.

3.8.3.3.3. Alternative 3 Significance After Mitigation

Residual environmental effects associated with the implementation of the Alternative 3 project would essentially be the same as those for the Proposed Project. Through the application of applicable General Plan policies and programs, mitigation measures set forth in Section 2.8.7 of this EIR, and compliance with applicable California seismic codes, potential impacts can be avoided, minimized and/or reduced to levels that are less than significant.

3.8.3.3.4. Alternative 3 Cumulative Impacts

Consideration of cumulative effects associated with geotechnical conditions includes the degree to which a project may contribute to the cumulative impacts from seismic events, surface soils, steep and unstable terrain and other conditions. Future development associated with Alternative 3 (current General Plan) would involve grading and excavation activities on individual sites, and could be affected by existing geology and soils conditions. Development sites that are relatively flat would remain flat, while hillside development would require cut and fill, manufactured slopes, and changes to the natural topography. Compliance with the CBC and the recommendations of individual geotechnical investigations would reduce geologic hazards for new development. Overall, Alternative 3 will not significantly increase the community's impacts from or associated with prevailing geotechnical conditions in the Coachella Valley. Therefore, cumulative impacts would be comparable to those associated with implementation of the pursuant to the Proposed Project and would not be cumulatively considerable.

3.8.4. Environmental Superior Alternative

The same geological and soils threats and conditions are applicable to all of the project alternatives. Those that are most site specific area associated with rockfall and landslide hazards, and at an in proximity of earthquake faults. In this regard, Alternative 2 (Less Intense Alternative) appears to be environmentally superior to the others. It reduces the extent of residential and commercial development in proximity to faults in the northern portions of the City. It also results in a lower overall number of housing units and City population at buildout. With these exceptions, potential environmental effects are comparable to one another. Therefore, Alternative 2 is arguably the environmentally superior to the others evaluated in this EIR.

3.9. Hazards, Hazardous Materials and Wildfires

3.9.1. Introduction

This section of the EIR describes the potential for the General Plan alternatives to create hazards to the public or residents of the area through the transport, use, or disposal of hazardous materials, exposure of persons to existing onsite hazardous materials or soil contamination, or exposure to potential wildland fires.

3.9.2. Existing Conditions

Hazardous Materials and Hazardous Waste
US Interstate 10 (I-10), East Palm Canyon Drive (State Highway 111), and Union Pacific Railroad pass through the Coachella Valley, including the City of Cathedral City, and may be used for the transport of hazardous cargo into and out of the area. Hazardous materials include chemicals, petroleum products, and variety of waste products and other potentially harmful and hazardous materials. The California Highway Patrol (CHP) and the California Department of Transportation (Caltrans) have primary responsibility for enforcing federal and state hazardous materials regulations and responding to transportation emergencies. The Cathedral City Fire Department responds to local hazardous materials emergencies, such as chemical leakages, spills, and fires.

Riverside County operates a Household Hazardous Waste (HHW) program to provide permanent and temporary HHW facilities at various locations to dispose of household hazardous wastes. The County also operates a Business Hazardous Waste program which provides disposal and recycling services to its residents. Businesses and government agencies that generate small quantities of hazardous waste can participate in the Riverside County Department of Waste Resources' Very Small Quantity Generator (VSQG) Program to properly dispose of their hazardous waste. In addition to these programs, Cathedral City also offers a Bulky Item (Large Item) Collection Program, Electronic and Tire Recycling Programs, Safe Syringe & Needle Disposal Programs, and Medication TakeAway Program to properly collect and/or recycle wastes.

Wildfires
CALFIRE designates areas as very high fire hazard severity (VHFHS) zones or non-VHFHS zones.[1] A small southwestern portion and an equally small area in the southeast in the vicinity of East Palm Canyon are designated as a VHFHS fire hazard zone within the Local Responsibility Area and State or Federal Responsibility Area, the State of California. No wildland fires have occurred within the planning area. The two mapped areas that delineate urbanized lands as occurring within a VHFHS zone may be a mapping error but may also meet certain criteria for being so mapped.[2] The City will continue to coordinate with CALFIRE on refinements to current fire hazard mapping in the City.

Generally, there is a low potential for wildfire to occur along the Santa Rosa Mountains foothills within the planning area according to CALFIRE mapping. To reduce the wildfire risk, the City of Cathedral City has adopted the 2016 edition of the California Building Standards Code and the 2016 edition of the California Fire Code. Also, see Section 2.9 for more information on wildfire threats in the City and vicinity.

1 CalFire Fire Hazard Zone Map, 2010. See Exhibit 2.9-1 of this EIR.
2 Personal communication, David Sapsis, Wildland Fire Scientist, Fire and Resource Assessment Program, CALFIRE. July 11, 2019

3.9.3. Alternatives Impact Analysis

3.9.3.1. Alternative 1

3.9.3.1.1. Alternative 1 Impacts

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

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

Future development pursuant to Alternative 1 may utilize or generate hazardous materials or wastes; however, they are not expected to occur in quantities that would pose a significant hazard to the public or the environment. Alternative 1 does not propose heavy industry or other land uses that would generate or use large quantities of hazardous materials. Existing regulations provide guidelines to prevent potential risks associated with hazardous materials.

Similar to the Proposed Project, development under Alternative 1 would be subject to the same local, county, state and federal regulations for the handling and transport of hazardous materials. Within the City, the use, storage and handling of these materials would also be guided by the policies and programs set forth in the General Plan. Implementation of existing regulations and adherence to the policies proposed in the General Plan Hazards and Hazardous Materials Sub-Element would reduce impacts to less than significant levels.

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

Alternative 1 allows various land uses close to the existing or new schools. The California Education Code (section 17210 et seq.) outlines the requirements of siting school facilities near or on known or suspected hazardous materials sites, or near facilities that emit hazardous air emissions, handle hazardous or acutely hazardous materials, substances, or waste. As with the Proposed Project, no existing or future school site are or will be located within one-quarter mile of a site that may emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste. Therefore, impacts from the buildout of Alternative 1 would be less than significant.

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

According to a California Department of Toxic Substances Control Cortese and EnviroStor database search (see Section 2.9), there are no active "cleanup sites" or "Hazardous Waste and Substances Sites" pursuant to Government Code Section 65962.5 in the City. Therefore, Alternative 1 would not facilitate development or other projects on such sites that would create a significant hazard to the public or the environment. No impact would occur.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

The Palm Springs International Airport (PSP) is located within two miles of many portions of Cathedral City and provides an important access point for helicopter and fixed-wing aircraft. Alternative 1 would result in new development that could occur in the vicinity of PSP but would occur outside the restrictive land use compatibility zones as established by the Riverside County Airport Land Use Commission. Existing and future airport 60 CNEL noise contours affect only a very small portion of the City and future 60 CNEL noise contours are projected to be

further removed from City lands Policies, and programs set forth in the Hazards and Hazardous Materials and Emergency Preparedness Sub-Elements also serve to promote a safe community and environment for its residents, including the land uses located close to the airport. Policy 8 in the Emergency Preparedness Sub-Element requires the City to minimize the risk of hazards associated with aircraft operations of the Palm Springs International Airport through the adoption and implementation of land use plans and policies consistent with the County Airport Land Use Compatibility Plan. Alternative 1 will not result in or create an airport-related safety hazard or excessive noise for people residing or working in the project area.

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

The City has a developed roadway network that provides emergency access and evacuation routes to existing development. Compared to the Proposed Project, implementation of Alternative 1 could generate an increase in the residential and employee population in the City as a result of the construction of new housing, and commercial/retail and industrial growth. New developments could, in turn, result in increased traffic. These new potential sources of congestion on local roads and freeways could increase response times for medical or other emergencies and could delay the evacuation of the population in an emergency. Policy 10 in the Emergency Preparedness Sub-Element guides the City to review its emergency preparedness plans to ensure that it includes programs that address the need for social and emotional support following a major disaster or emergency. Implementation of the General Plans goals, policies, and programs would ensure that development facilitated by Alternative 1 would not physically interfere with an adopted emergency response plan or emergency evacuation plan. Similar to the Proposed Project, Alternative 1 impacts would be less than significant.

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

As is the case with the Proposed Project, the majority of the City is located on the low-lying valley floor, and outside of the mapped VHFHS wildfire hazard zone. As shown in Exhibit 2.9-1, a limited area of southwestern and southeast City limits is within this VHFHS fire hazard severity zone. They occur on the slopes of the Santa Rosa Mountains and extend into urbanized portions of the City. The proposed General Plan designates these area as Business Park (BP) and General Commercial (CG) and designates upslope lands as Open Space–Other (OS-O) with limited areas in Hillside Reserve, which would minimize potential risks to people or structures. Those portions mapped in the VHFHS and referenced as State or Federal Responsibility Area are within already urbanized areas and mapping may be in error. Alternative 1 will not expose people or structures to a significant risk of loss, injury or death involving wildland fires, and less than significant impact is anticipated.

Wildfire

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

The City has a developed roadway network that provides emergency access and evacuation routes to existing development. Compared to the Proposed Project, implementation of Alternative 1 could generate an increase in the residential and employee population in the City as a result of the construction of new housing, and commercial/retail and industrial growth. New developments could, in turn, result in increased traffic. These new potential sources of congestion on local roads and freeways could increase response times for medical or other emergencies and could delay the evacuation of the population in an emergency. Goal 1 of the Emergency Preparedness Sub-Element identifies policies and programs to update hazard mitigation and emergency services and maximizes response capabilities of the various agencies within the planning area. Policy 3 requires the City to identify and establish emergency evacuation and supply routes and plans to preserve or reestablish the use of East Palm Canyon Drive, Dinah Shore Drive, Ramon Road, Vista Chino, Interstate-10 and other essential transportation routes.

Implementation of the General Plans goals, policies, and programs would ensure that development facilitated by Alternative 1 would not physically interfere with an adopted emergency response plan or emergency evacuation plan. Similar to the Proposed Project, Alternative 1 impacts would be less than significant.

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

Alternative 1 will facilitate future development in the planning area, and development must occur in a manner that is sensitive to wildfire risks and the potential exposure of occupants to pollutant concentrations and uncontrolled spread of wildfire. Wildfire hazards to a developed community are highest in areas near the wildland-urban interface (WUI). As noted in Section 2.9, CALFIRE designates areas as very high fire hazard severity (VHFHS) zones or non-VHFHS zones.[3] Small portions of the City adjacent to the southwestern and southeastern city limits are designated as a VHFHS fire hazard zone within the Local Responsibility Area and State and Federal Responsibility Area by the State of California. No wildland fires have occurred within the planning area.

Alternative 1 would facilitate future development on vacant land on the valley floor where strong, sustained winds can occur. During construction, strict adherence to safety regulations would ensure that contractors minimize wildfire risks, and in turn, pollutant concentrations associated with wildfire. Future development projects would be evaluated and monitored on a project-by-project basis to assure regulations are properly implemented. Consistent with the Proposed Project, implementation of Alternative 1 would result in less than significant impacts associated with wildfire risks.

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

Potential impacts of future development and redevelopment projects within the planning area under Alternative 1 would be evaluated on a project-by-project basis and would be required to meet applicable safety requirements so as to minimize fire risks and environment impacts to the greatest extent practical. Policy 1 of the Safety Element requires the City to promote the enhanced resilience of future water, sewer, electric and other utilities, the retrofit and rehabilitation of existing weak structures and lifeline utilities, and the relocation or strengthening of certain critical facilities to increase public safety and minimize. Assuming compliance with the policies embedded in the proposed General Plan, future development and redevelopment associated with Alternative 1 would not result in significant adverse impacts associated with utility infrastructures. Impacts associated with Alternative 1 would be less than significant.

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

A small southwestern portion and an equally small area in the southeast in the vicinity of East Palm Canyon are designated as a VHFHS fire hazard zone within the Local Responsibility Area and State or Federal Responsibility Area, by the State of California. They occur on the slopes of the Santa Rosa Mountains where there is also a moderate to high potential for seismically-induced rock falls and landslides. As such, this area and downslope lands may be susceptible to slope instability and flooding after a wildfire.

Similar to the proposed General Plan, Alternative 1 would designate identified fire hazard areas as Business Park (BP) and General Commercial (CG) and designates upslope lands as Open Space–Other (OS-O), which would minimize potential risks to people or structures. The West Cathedral Canyon Wash would be designated as Open

[3] CalFire Fire Hazard Zone Map, 2010. See Exhibit 2.9-1 of this EIR.

Space, preserving its functionality and capacity to protect nearby development from flooding. The Wash would also act as a buffer between the slopes of the Santa Rosa Mountains and downslope development by absorbing much of the potential damage from landslides and rock falls and providing some level of protection to habitable development.

Policies 3 and 4 of the Geotechnical Sub-Element requires new development to investigate geological and geotechnical investigations before construction. It also requires new development to be constructed according to the Uniform Building Code. Assuming compliance with the policies embedded in the General Plan, future development and redevelopment would not result in significant adverse impacts associated with post-fire risks. Implementation of Alternative 1 would not expose people or structures to significant downslope or downstream flooding or landslides, post-fire slope instability, or drainage changes.

3.9.3.1.2. Alternative 1 Mitigation Measures

In addition to the policies and programs set forth in the General Plan, Alternative 1 would adhere to the same mitigation measures set forth in Section 2.9.7 which will serve to avoid, minimize and mitigate potential impacts to City lands, buildings and other structures and human lives from the hazards and hazardous materials identified in this EIR.

3.9.3.1.3. Alternative 1 Significance After Mitigation

With mitigation measures set forth in Section 2.9.7, Alternative 1 impacts will be less than significant.

3.9.3.1.4. Alternative 1 Cumulative Impacts

Hazards and Hazardous Materials
The protections granted by local, state, and federal agencies and their requirements for the use of hazardous materials ensure the overall cumulative impact would not be significant, and Alternative 1's incremental contribution to cumulative hazards and hazardous materials impacts would be less than cumulatively considerable.

Wildfires
The majority of the City and surrounding communities are located on the low-lying valley floor, which are outside of wildfire hazard areas and, therefore, have little to no potential for hazards resulting from post-wildfire flooding, landslide, or slope instability. Also, these areas are designated predominantly as open space to further reduce potential wildfire hazards. Alternative 1's contribution to increased wildfire hazards would not be cumulatively considerable.

Alternative 1 would have the same level of cumulative impacts with regards to hazards, hazardous materials, and wildfires as the Proposed Project.

3.9.3.2. Alternative 2

3.9.3.2.1. Alternative 2 Impacts

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

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

Future development pursuant to Alternative 2 may utilize or generate hazardous materials or wastes; however, they are not expected to occur in quantities that would pose a significant hazard to the public or the environment. Alternative 1 does not propose heavy industry or other land uses that would generate or use large quantities of hazardous materials. Existing regulations provide guidelines to prevent potential risks associated with hazardous materials.

Similar to the Proposed Project, development under Alternative 2 would be subject to the same local, county, state and federal regulations for the handling and transport of hazardous materials. Within the City, the use, storage and handling of these materials would also be guided by the policies and programs set forth in the General Plan. Implementation of existing regulations and adherence to the policies proposed in the General Plan Hazards and Hazardous Materials Sub-Element would reduce impacts to less than significant levels.

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

Alternative 2 also allows various land uses close to the existing or new schools. The California Education Code (section 17210 et seq.) outlines the requirements of siting school facilities near or on known or suspected hazardous materials sites, or near facilities that emit hazardous air emissions, handle hazardous or acutely hazardous materials, substances, or waste. As with the Proposed Project, no existing or future school site are or will be located within one-quarter mile of a site that may emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste. Therefore, impacts from the buildout of Alternative 2 would be less than significant.

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

According to a California Department of Toxic Substances Control Cortese and EnviroStor database search (see Section 2.9), there are no active "cleanup sites" or "Hazardous Waste and Substances Sites" pursuant to Government Code Section 65962.5 in the City. Therefore, Alternative 2 would not facilitate development or other projects on such sites that would create a significant hazard to the public or the environment. No impact would occur.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

The Palm Springs International Airport (PSP) is located within two miles of many portions of Cathedral City and provides an important access point for helicopter and fixed-wing aircraft. Alternative 2 would result in new development that could occur in the vicinity of PSP but would occur outside the restrictive land use compatibility zones as established by the Riverside County Airport Land Use Commission. Existing and future airport 60 CNEL noise contours affect only a very small portion of the City and future 60 CNEL noise contours are projected to be further removed from City lands Policies, and programs set forth in the Hazards and Hazardous Materials and Emergency Preparedness Sub-Elements also serve to promote a safe community and environment for its residents, including the land uses located close to the airport. Policy 8 in the Emergency Preparedness Sub-Element requires the City to minimize the risk of hazards associated with aircraft operations of the Palm Springs International Airport through the adoption and implementation of land use plans and policies consistent with the County Airport Land Use Compatibility Plan. Alternative 2 will not result in or create an airport-related safety hazard or excessive noise for people residing or working in the project area.

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

The City has a developed roadway network that provides emergency access and evacuation routes to existing development. Compared to the Proposed Project, implementation of Alternative 2 could generate an increase in the residential and employee population in the City as a result of the construction of new housing, and commercial/retail and industrial growth. New developments could, in turn, result in increased traffic. These new potential sources of congestion on local roads and freeways could increase response times for medical or other emergencies and could delay the evacuation of the population in an emergency. Policy 10 in the Emergency Preparedness Sub-Element guides the City to review its emergency preparedness plans to ensure that it includes programs that address the need for social and emotional support following a major disaster or emergency. Implementation of the General Plans goals, policies, and programs would ensure that development facilitated by Alternative 2 would not physically interfere with an adopted emergency response plan or emergency evacuation plan. Similar to the Proposed Project, Alternative 2 impacts would be less than significant.

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

As is the case with the Proposed Project, the majority of the City is located on the low-lying valley floor, and outside of the mapped VHFHS wildfire hazard zone. As shown in Exhibit 2.9-1, a limited area of southwestern and southeast City limits is within this VHFHS fire hazard severity zone. They occur on the slopes of the Santa Rosa Mountains and extend into urbanized portions of the City. The proposed General Plan designates these area as Business Park (BP) and General Commercial (CG) and designates upslope lands as Open Space–Other (OS-O) with limited areas in Hillside Reserve, which would minimize potential risks to people or structures. Those portions mapped in the VHFHS and referenced as Local Responsibility and State or Federal Responsibility Area are within already urbanized areas and mapping may be in error. Alternative 2 will not expose people or structures to a significant risk of loss, injury or death involving wildland fires, and less than significant impact is anticipated.

Wildfire

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

The City has a developed roadway network that provides emergency access and evacuation routes to existing development. Compared to the Proposed Project, implementation of Alternative 2 would generate an decrease in the residential and employee population in the City as a result of the construction of new housing, and commercial/retail and industrial growth. New developments could, in turn, result in increased traffic. These new potential sources of congestion on local roads and freeways could increase response times for medical or other emergencies and could delay the evacuation of the population in an emergency. Goal 1 of the Emergency Preparedness Sub-Element identifies policies and programs to update hazard mitigation and emergency services and maximizes response capabilities of the various agencies within the planning area. Policy 3 requires the City to identify and establish emergency evacuation and supply routes and plans to preserve or reestablish the use of East Palm Canyon Drive, Dinah Shore Drive, Ramon Road, Vista Chino, Interstate-10 and other essential transportation routes. Implementation of the General Plans goals, policies, and programs would ensure that development facilitated by Alternative 2 would not physically interfere with an adopted emergency response plan or emergency evacuation plan. Similar to the Proposed Project, Alternative 2 impacts would be less than significant.

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

Alternative 2 will facilitate future development in the planning area, and development must occur in a manner that is sensitive to wildfire risks and the potential exposure of occupants to pollutant concentrations and uncontrolled spread of wildfire. Wildfire hazards to a developed community are highest in areas near the wildland-urban interface (WUI). As noted in Section 2.9, CALFIRE designates areas as very high fire hazard severity (VHFHS) zones or

non-VHFHS zones.[4] Two small portion of the City adjacent to the southwestern and southeastern city limits are designated as a VHFHS fire hazard zone within the Local Responsibility Area and State and Federal Responsibility Area by the State of California. No wildland fires have occurred within the planning area.

Alternative 2 would facilitate future development on vacant land on the valley floor where strong, sustained winds can occur. During construction, strict adherence to safety regulations would ensure that contractors minimize wildfire risks, and in turn, pollutant concentrations associated with wildfire. Future development projects would be evaluated and monitored on a project-by-project basis to assure regulations are properly implemented. Consistent with the Proposed Project, implementation of Alternative 2 would result in less than significant impacts associated with wildfire risks.

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

Potential impacts of future development and redevelopment projects within the planning area under Alternative 2 would be evaluated on a project-by-project basis and would be required to meet applicable safety requirements so as to minimize fire risks and environment impacts to the greatest extent practical. Policy 1 of the Safety Element requires the City to promote the enhanced resilience of future water, sewer, electric and other utilities, the retrofit and rehabilitation of existing weak structures and lifeline utilities, and the relocation or strengthening of certain critical facilities to increase public safety and minimize. Assuming compliance with the policies embedded in the General Plan, future development and redevelopment associated with Alternative 2 would not result in significant adverse impacts associated with utility infrastructures. Impacts associated with Alternative 2 would be less than significant.

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

A small southwestern portion and an equally small area in the southeast in the vicinity of East Palm Canyon are designated as a VHFHS fire hazard zone within the Local Responsibility Area and State or Federal Responsibility Area, the State of California. They occur on the slopes of the Santa Rosa Mountains where there is also a moderate to high potential for seismically-induced rock falls and landslides. As such, this area and upslope lands may be susceptible to slope instability and flooding after a wildfire.

Similar to the proposed General Plan, Alternative 2 would designate these areas as Business Park (BP) and General Commercial (CG) and designates upslope lands as Open Space–Other (OS-O), which would minimize potential risks to people or structures. The West Cathedral Canyon Wash would be designated as Open Space, preserving its functionality and capacity to protect nearby development from flooding. The wash would also act as a buffer between the slopes of the Santa Rosa Mountains and downslope development by absorbing much of the potential damage from landslides and rock falls and providing some level of protection to habitable development.

Policies 3 and 4 of the Geotechnical Sub-Element requires new development to investigate geological and geotechnical investigations before construction. It also requires new development to be constructed according to the Uniform Building Code. Assuming compliance with the policies embedded in the General Plan, future development and redevelopment would not result in significant adverse impacts associated with post-fire risks. Implementation of Alternative 2 would not expose people or structures to significant downslope or downstream flooding or landslides, post-fire slope instability, or drainage changes.

[4] CalFire Fire Hazard Zone Map, 2010. See Exhibit 2.9-1 of this EIR.

3.9.3.2.2. Alternative 2 Mitigation Measures

In addition to the policies and programs set forth in the General Plan, Alternative 2 would adhere to the same mitigation measures set forth in Section 2.9.7 which will serve to avoid, minimize and mitigate potential impacts to City lands, buildings and other structures and human lives from the hazards and hazardous materials, as well as wildfire hazards identified in this EIR.

3.9.3.2.3. Alternative 2 Significance After Mitigation

As discussed in Section 2.9, the policies and programs set forth in the various General Plan elements serve to avoid, minimize and mitigate potential impacts of hazards, hazardous materials and wildfires in and near the City. In addition to the policies and programs set forth in the Safety Element, the mitigation measures set forth in Section 2.9.7 will serve to further avoid, minimize and mitigate potential impacts to City lands, buildings and other structures and human lives from the hazards and hazardous materials identified in this EIR. Alternative 2 impacts will be less than significant.

3.9.3.2.4. Alternative 2 Cumulative Impacts

Hazards and Hazardous Materials
The protections granted by local, state, and federal agencies and their requirements for the use of hazardous materials ensure the overall cumulative impact would not be significant, and Alternative 2's incremental contribution to cumulative hazards and hazardous materials impacts would be less than cumulatively considerable.

Wildfires
The majority of the City and surrounding communities are located on the low-lying valley floor, which are outside of wildfire hazard areas and, therefore, have little to no potential for hazards resulting from post-wildfire flooding, landslide, or slope instability. Also, these areas are designated predominantly as open space to further reduce potential wildfire hazards. Two urbanized areas mapped within a fire hazard zone are already developed and Alternative 2 does not add to existing wildfire hazards in the City. Alternative 2's contribution to increased wildfire hazards would not be cumulatively considerable. Alternative 2 would have the same level of cumulative impacts with regards to hazards, hazardous materials, and wildfires as the Proposed Project.

3.9.3.3. Alternative 3

3.9.3.3.1. Alternative 3 Impacts

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

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

Future development pursuant to Alternative 3 may utilize or generate hazardous materials or wastes; however, they are not expected to occur in quantities that would pose a significant hazard to the public or the environment. Alternative 3 does not propose heavy industry or other land uses that would generate or use large quantities of hazardous materials. Existing regulations provide guidelines to prevent potential risks associated with hazardous materials.

Similar to the Proposed Project, development under Alternative 3 would be subject to the same local, county, state and federal regulations for the handling and transport of hazardous materials. Within the City, the use, storage and handling of these materials would also be guided by the policies and programs set forth in the General Plan. Implementation of existing regulations and adherence to the policies proposed in the General Plan Hazards and Hazardous Materials Sub-Element would reduce impacts to less than significant levels.

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

This alternative allows various land uses close to the existing or new schools. The California Education Code (section 17210 et seq.) outlines the requirements of siting school facilities near or on known or suspected hazardous materials sites, or near facilities that emit hazardous air emissions, handle hazardous or acutely hazardous materials, substances, or waste. As with the Proposed Project, no existing or future school site are or will be located within one-quarter mile of a site that may emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste. Therefore, impacts from the buildout of Alternative 3 would be less than significant.

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

According to a California Department of Toxic Substances Control Cortese and EnviroStor database search (see Section 2.9), there are no active "cleanup sites" or "Hazardous Waste and Substances Sites" pursuant to Government Code Section 65962.5 in the City. Therefore, Alternative 3 would not facilitate development or other projects on such sites that would create a significant hazard to the public or the environment. No impact would occur.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

The Palm Springs International Airport (PSP) is located within two miles of many portions of Cathedral City and provides an important access point for helicopter and fixed-wing aircraft. Alternative 3 would result in new development that could occur in the vicinity of PSP but would occur outside the restrictive land use compatibility zones as established by the Riverside County Airport Land Use Commission. Existing and future airport 60 CNEL noise contours affect only a very small portion of the City and future 60 CNEL noise contours are projected to be further removed from City lands Policies, and programs set forth in the Hazards and Hazardous Materials and Emergency Preparedness Sub-Elements also serve to promote a safe community and environment for its residents, including the land uses located close to the airport. Policy 8 in the Emergency Preparedness Sub-Element requires the City to minimize the risk of hazards associated with aircraft operations of the Palm Springs International Airport through the adoption and implementation of land use plans and policies consistent with the County Airport Land Use Compatibility Plan. Alternative 3 will not result in or create an airport-related safety hazard or excessive noise for people residing or working in the project area.

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

The City has a developed roadway network that provides emergency access and evacuation routes to existing development. Compared to the Proposed Project, implementation of Alternative 3 could generate an increase in the residential and employee population in the City as a result of the construction of new housing, and commercial/retail and industrial growth. New developments could, in turn, result in increased traffic. These new potential sources of congestion on local roads and freeways could increase response times for medical or other emergencies and could

delay the evacuation of the population in an emergency. Policy 10 in the Emergency Preparedness Sub-Element guides the City to review its emergency preparedness plans to ensure that it includes programs that address the need for social and emotional support following a major disaster or emergency. Implementation of the General Plans goals, policies, and programs would ensure that development facilitated by Alternative 3 would not physically interfere with an adopted emergency response plan or emergency evacuation plan. Similar to the Proposed Project, Alternative 3 impacts would be less than significant.

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

As with the Proposed Project, the majority of the City is located on the low-lying valley floor, and outside of the mapped VHFHS wildfire hazard zone. As shown in Exhibit 2.9-1, a limited area of southwestern and southeast City limits is within this VHFHS fire hazard severity zone. They occur on the slopes of the Santa Rosa Mountains and extend into urbanized portions of the City. The proposed General Plan designates these area as Business Park (BP) and General Commercial (CG) and designates upslope lands as Open Space–Other (OS-O) with limited areas in Hillside Reserve, which would minimize potential risks to people or structures. Those portions mapped in the VHFHS and referenced as State or Federal Responsibility Area are within already urbanized areas and mapping may be in error. Alternative 3 will not expose people or structures to a significant risk of loss, injury or death involving wildland fires, and less than significant impact is anticipated.

Wildfire

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

The City has a developed roadway network that provides emergency access and evacuation routes to existing development. Compared to the Proposed Project, implementation of Alternative 3 could generate an increase in the residential and employee population in the City as a result of the construction of new housing, and commercial/retail and industrial growth. New developments could, in turn, result in increased traffic. These new potential sources of congestion on local roads and freeways could increase response times for medical or other emergencies and could delay the evacuation of the population in an emergency. Goal 1 of the Emergency Preparedness Sub-Element identifies policies and programs to update hazard mitigation and emergency services and maximizes response capabilities of the various agencies within the planning area. Policy 3 requires the City to identify and establish emergency evacuation and supply routes and plans to preserve or reestablish the use of East Palm Canyon Drive, Dinah Shore Drive, Ramon Road, Vista Chino, Interstate-10 and other essential transportation routes. Implementation of the General Plans goals, policies, and programs would ensure that development facilitated by Alternative 3 would not physically interfere with an adopted emergency response plan or emergency evacuation plan. Similar to the Proposed Project, Alternative 3 impacts would be less than significant.

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

Alternative 3 will facilitate future development in the planning area, and development must occur in a manner that is sensitive to wildfire risks and the potential exposure of occupants to pollutant concentrations and uncontrolled spread of wildfire. Wildfire hazards to a developed community are highest in areas near the wildland-urban interface (WUI). As noted in Section 2.9, CALFIRE designates areas as very high fire hazard severity (VHFHS) zones or non-VHFHS zones. [5] Small portions of the City adjacent to the southwestern and southeastern city limits are designated as a VHFHS fire hazard zone within the Local Responsibility Area and State and Federal Responsibility, by the State of California. No wildland fires have occurred within the planning area.

[5] CalFire Fire Hazard Zone Map, 2010. See Exhibit 2.9-1 of this EIR.

Alternative 3 would facilitate future development on vacant land on the valley floor where strong, sustained winds can occur. During construction, strict adherence to safety regulations would ensure that contractors minimize wildfire risks, and in turn, pollutant concentrations associated with wildfire. Future development projects would be evaluated and monitored on a project-by-project basis to assure regulations are properly implemented. Consistent with the Proposed Project, implementation of Alternative 3 would result in less than significant impacts associated with wildfire risks.

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

Potential impacts of future development and redevelopment projects within the planning area under Alternative 3 would be evaluated on a project-by-project basis and would be required to meet applicable safety requirements so as to minimize fire risks and environment impacts to the greatest extent practical. Policy 1 of the Safety Element requires the City to promote the enhanced resilience of future water, sewer, electric and other utilities, the retrofit and rehabilitation of existing weak structures and lifeline utilities, and the relocation or strengthening of certain critical facilities to increase public safety and minimize. Assuming compliance with the policies embedded in the General Plan, future development and redevelopment associated with Alternative 3 would not result in significant adverse impacts associated with utility infrastructures. Impacts associated with Alternative 3 would be less than significant.

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

A small southwestern portion and an equally small area in the southeast in the vicinity of East Palm Canyon are designated as a VHFHS fire hazard zone within the Local Responsibility Area and State or Federal Responsibility Area, the State of California. They occur on the slopes of the Santa Rosa Mountains where there is also a moderate to high potential for seismically-induced rock falls and landslides. As such, this area and downslope lands may be susceptible to slope instability and flooding after a wildfire.

Similar to the proposed General Plan, Alternative 3 would designate this area as Business Park (BP) and General Commercial (CG) and designates upslope lands as Open Space–Other (OS-O), which would minimize potential risks to people or structures. The West Cathedral Canyon Wash would be designated as Open Space, preserving its functionality and capacity to protect nearby development from flooding. The wash would also act as a buffer between the slopes of the Santa Rosa Mountains and downslope development by absorbing much of the potential damage from landslides and rock falls and providing some level of protection to habitable development.

Policies 3 and 4 of the Geotechnical Sub-Element requires new development to investigate geological and geotechnical investigations before construction. It also requires new development to be constructed according to the Uniform Building Code. Assuming compliance with the policies embedded in the General Plan, future development and redevelopment would not result in significant adverse impacts associated with post-fire risks. Implementation of Alternative 3 would not expose people or structures to significant downslope or downstream flooding or landslides, post-fire slope instability, or drainage changes.

3.9.3.3.2. Alternative 3 Mitigation Measures

As discussed in Section 2.9, the policies and programs set forth in the various General Plan elements serve to avoid, minimize and mitigate potential impacts of hazards, hazardous materials and wildfires in and near the City. In addition to the policies and programs set forth in the Safety Element, the mitigation measures set forth in Section 2.9.7 will serve to further avoid, minimize and mitigate potential impacts to City lands, buildings and other structures and human lives from the hazards and hazardous materials identified in this EIR. Therefore, Alternative 3 impacts will be less than significant.

3.9.3.3.3. Alternative 3 Significance After Mitigation

Alternative 3 impacts will be less than significant.

3.9.3.3.4. Alternative 3 Cumulative Impacts

Hazards and Hazardous Materials
The protections granted by local, state, and federal agencies and their requirements for the use of hazardous materials ensure the overall cumulative impact would not be significant, and Alternative 3's incremental contribution to cumulative hazards and hazardous materials impacts would be less than cumulatively considerable.

Wildfires
The majority of the City and surrounding communities are located on the low-lying valley floor, which are outside of wildfire hazard areas and, therefore, have little to no potential for hazards resulting from post-wildfire flooding, landslide, or slope instability. Also, these areas are designated predominantly as open space to further reduce potential wildfire hazards. Two urbanized areas mapped within a fire hazard zone are already developed and Alternative 2 does not add to existing wildfire hazards in the City. Alternative 2's contribution to increased wildfire hazards would not be cumulatively considerable. Alternative 2 would have the same level of cumulative impacts with regards to hazards, hazardous materials, and wildfires as the Proposed Project.

3.9.4. Environmental Superior Alternative

All Alternatives, including the Proposed Project, would result in less than significant impacts related to hazards and wildfires. Alternative 1 land use density increases could potentially increase buildout population, thus increasing traffic during an emergency situation. Therefore, if a population increase would have a greater impact on emergency response times, Alternative 2 would be considered environmentally superior due to the lower population density projections.

3.10. Hydrology and Water Quality

3.10.1. Introduction

This section of the EIR analyzes the potential impacts associated with the alternatives to the proposed Cathedral City General Plan Update based on regional and local hydrological settings and water quality. The planning area is located within the Coachella Valley which lies in the Whitewater River Watershed. The principal drainage through the watershed is the Whitewater River which emanates from the San Bernardino Mountains northwest of the Coachella Valley and drains southeast to the Salton Sea. A variety of other drainages discharge primarily into the Whitewater River, drainages the surrounding San Jacinto, Santa Rosa, and Little San Bernardino Mountains

Over the past century, the Coachella Valley has seen extensive urban development which has affected water quality due to the introduction of pollutants and erosion due to agriculture, surface mining, and urban development. Developed and expanses of pavement result in increased runoff and higher velocities in creeks, streams, and channels and in turn cause erosion. Urban pollutants may include toxic metals, hydrocarbons, nutrients, suspended solids, and a variety of other chemicals. In this section, the project's potential impacts are discussed, and mitigation measures are set forth where needed. The analysis concludes with a discussion of residual and cumulative impacts.

3.10.2. Existing Conditions

Hydrology

As described in Section 2.10.4, the City is located within the Coachella Valley which lies within the Whitewater River Watershed, which is generally defined by the boundaries of the Whitewater Hydrologic Unit as described in the Water Quality Control Plan for the Colorado River Basin Regional Water Quality Control Board (Basin Plan). Much of the watershed consists of sparsely populated mountains, desert, and agricultural lands. Urbanized areas are principally located on the valley floor between the San Gorgonio Pass Palm Springs and the Salton Sea. The watershed is generally bounded on the south by the San Jacinto and Santa Rosa Mountains, on the west by the Santa Ana Watershed, on the east by the Salton Sea, on the northeast by the Cottonwood Mountains, and on the north east by the Little San Bernardino Mountains and Southern Mojave Watershed.

The Whitewater River has a total drainage area of approximately 850 square miles and is typically dry but flows southeasterly when it carries water. Over the last 50 years, the Whitewater River has been impacted by increasing development within the watershed. The lower river was channelized into a levee flood control structure following damaging floods in the valley in 1939 and 1979. This flood control project, developed in cooperation with the U.S. Army Corps of Engineers (ACOE), included rip-rap levee banks, removal of all vegetation from the banks, and dredging of the river channel bottom. West of Point Happy in La Quinta, it is called the Whitewater River Stormwater Channel (WWRSC). East of Point Happy, it is referred to as the Coachella Valley Stormwater Channel.

Water Resources

The Whitewater River Groundwater Basin generally extends from the Whitewater River in the northwest to the Salton Sea in the southeast. The aquifer is naturally subdivided by fault barriers into subbasins, which are further divided into subareas. Desert Water Agency (DWA) and the Coachella Valley Water District (CVWD) jointly utilize and manage a replenishment program for the local groundwater basin, the Upper Whitewater River Subbasin.

In total, the subbasins underlying the Coachella Valley contain approximately 39.2 million acre-feet of water in storage,[1] of which about 28.8 million are within the Whitewater River subbasin.[2] Recharge comes from limited precipitation and mountain runoff, but most is from artificial recharge with imported Colorado River and State Water Project (exchange) water, and recycled water from treatment plants.

[1] Whitewater River Region Stormwater Management Plan, prepared in June 2014 and Revised in January 2015.
[2] Groundwater Replenishment and Assessment Program for the West Whitewater River Basin, Mission Creek Subbasin, and Garnet Hill Subbasin Areas of Benefit by DWA (2018-2019 Engineer's Report).

During the twentieth century, the Coachella Valley experienced a rapid depletion of its groundwater in storage. DWA and CVWD data show that significant increases in total water demand in the Coachella Water Valley occurred during over the decades from 92,400 acre-feet/year (AFY) in 1936 to 376,000 AFY in 1999.[3] The increase in water demand reflects both municipal water and agricultural irrigation. This is consistent with the growth of two primary economic activities in the Coachella Valley: agriculture and tourism.

3.10.3. Alternatives Impact Analysis

3.10.3.1. Alternative 1

3.10.3.1.1. Alternative 1 Impacts

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

Similar to the Proposed Project, development under the Alternative 1 would result in the following: 1) substantial additional sources of polluted runoff which would have short-term impacts on surface water, 2) pollutants, such as soils, debris, and other materials, in quantities that would potentially exceed water quality standards and otherwise significantly degrade water quality; and 3) non-point source pollution into surface and groundwater bodies. When compared to the Proposed Project, the Alternative 1 would have higher residential densities and generally more intense development with more population growth, resulting in more point- and non-point source pollutants. Alternative 1 have a potential to violate groundwater quality standards comparable to that associated with the Proposed Project and would be subject to the same regulations. Overall, Alternative 1 would modestly increase urban runoff and related waste discharges compared to the Proposed Project. As with the Proposed Project, General Plan policies and programs, and other applicable regulations will ensure that impacts are less than significant. Measures in Section 2.10.7 further ensure that Alternative 1 impacts will be less than significant.

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

Similar to the Proposed Project, Alternative 1 would allow more intense land use and very modestly increase groundwater groundwater demand. Using CVWD's annual water consumption factors, buildout of the proposed Alternative 1 could result in the demand for approximately 20,843 acre-feet per year (AFY) of domestic water, a 0.4 percent increase when compared to the Proposed Project. (see Table 3.10-1). Alternative 1 would not affect or interfere with local or regional groundwater recharge.

Table 3.10-1
Estimated Water Demand at Alternative 1 Buildout

Land Use	CVWD Water Consumption Factor*	Conditions at General Plan Buildout (2040)	Total Water Demand (AFY) at General Plan Buildout (2040)
Single-Family Residential	2.31 acre-feet per acre per year (AFY)	6,628.58 acres	15,312.02
Multi-Family Residential	2.06 acre-feet per acre per year (AFY)	864.93 acres	1,781.76
Commercial	1.92 acre-feet per acre per year (AFY)	1,635.06 acres	3,139.32
Industrial	0.51 acre-feet per acre per year (AFY)	1,195.41 acres	609.66
TOTAL			20,842.76

* CVWD's annual water consumption factors from Supplemental Water Supply Program and Fee Study Prepared for the City of Coachella in 2016.

[3] Coachella Valley Water Management Plan Update Draft Report prepared for CVWD in December 2010 by MWH.

As with the Proposed Project, General Plan policies and programs, and other applicable regulations will ensure that impacts to groundwater and related supplies, and to groundwater recharge, will be less than significant. Measures in Section 2.10.7 further ensure that Alternative 1 impacts will be less than significant.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

(i) result in substantial erosion or siltation on- or off-site;

Development under Alternative 1 would result in the construction of new residential, commercial, and industrial buildings, roadways, landscaping, and other features within the planning area that could result in permanent alterations to existing drainage patterns by converting areas within the planning area from pervious surfaces to impervious surfaces. Permanent development of impervious surfaces within the planning area would increase runoff and potentially increase erosion or worsen existing areas of erosion. When compared to the Proposed Project, the Alternative 1 would accommodate more intense development but essentially on the same land area. Therefore, Alternative 1 would not result in increased erosion or siltation compared to the Proposed Project.

Compliance with federal, state, regional and local regulations and policies included in the proposed General Plan update would minimize the potential for erosion and siltation in the planning area. Overall, these impacts would be reduced to less than significant levels for all project alternatives. In summary, planned development and improvements associated with and facilitated by Alternative 1 would not significantly alter existing drainage patterns nor would it result in the development of additional impervious surfaces that would substantially increase soil erosion or siltation within the City or in any downstream areas. Therefore, resulting erosion and siltation associated with Alternative 1 would be less than significant. Mitigation identified in Section 2.10.7 would further ensure that impacts are less than significant.

(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

The rate and amount of runoff associated with Alternative 1 would essentially be the same as that associated with the Proposed Project. As with the Proposed Project, this alternative does not propose alterations to the course of a stream, river, or improved channel. Neither would new lands be subject to development under Alternative 1, but might be more intensively developed. Therefore, Alternative 1would not substantially increase the rate or amount of surface runoff that would result in flooding either within the City or regionally. While mitigation is not required, Section 2.10.7 includes avoidance, minimization and other measures that will further assure that potential flooding impacts will be less than significant.

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

(iv) impede or redirect flood flows?

Alternative 1 is not expected to increase the amount of impermeable surfaces, or if so only modestly. Neither is Alternative 1 expected to impede or redirect flood flows, or create or contribute volumes of runoff that would exceed the capacity of local or regional drainage facilities. Existing City regulations and those of the Regional Water Quality Control Board, along with and include required Water Quality Management Plans, will ensure that new development for all of the project alternatives are not substantial sources of polluted runoff. Development projects enabled under Alternative 1 would also be conditioned pursuant to the policies and programs set forth in the Flooding and Hydrology Sub-Element of the General Plan. Therefore, impacts would be compared to the Proposed Project and will be less than significant. While mitigation is not required, Section 2.10.7 includes avoidance, minimization and other measures that will further assure that potential flooding and water quality impacts will be less than significant.

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

Due to the inland location of the planning area, implementation of the Alternative 1 would not expose people or structures to hazards associated with inundation by a tsunami or seiche. Implementation of the Alternative 1 would result in land uses or development within areas subject to flooding from Santa Rosa foothills and in the northern portions of the City. With completion of the Eagle Canyon Dam, much of the southwest portion of the City that was subject to 100-year flood has been removed from this threat. All future development projects would be required to comply with all applicable federal, state, and local regulations related to flood hazards. Compliance with such regulations would ensure that impacts related to flooding are less than significant. To reduce the potential impact from seiche in water reservoirs, these facilities are built with battling that dampens such motion. Also, lands downstream of water reservoirs are designated generally in Open Space and in proximity to existing drainages. In addition, future development proposals would be evaluated on a case-by-case basis to assure that potential impacts associated with seiche would be minimized. Impacts associated with Alternative 1 would be less than significant.

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

Similar to the Proposed Project, Alternative 1 would increase the demand for domestic water, but it is not anticipated to conflict with Regional Water Control Board standards. Individual development projects developed under Alternative 1 will be assessed on a case-by-case basis for potential impacts related to water supplies and quality. Projects will be required to demonstrate adherence to applicable plans, policies, and regulations adopted for the purposed of reducing water quality impacts. Therefore, development facilitated by Alternative 1 would not conflict with or obstruct implementation of local or regional water quality control plans or sustainable groundwater management plans, and impacts to water quality and supplies would be less than significant.

3.10.3.1.2. Alternative 1 Mitigation Measures

No mitigation measures are required to address potential impacts associated with Alternative 1. As noted in Section 2.10, the General Plan Flooding and Hydrology Sun-Element and the Water Resources Sub-Elements include policies and programs that will serve to effectively avoid, minimize and otherwise mitigate potentially significant impacts to water resources or water quality, or from existing and future flood hazards that could result from implementation of each of the project alternatives. Implementation of the avoidance, minimization and other measures set forth in Section 2.10.7 of this EIR and relevant policies and programs set forth in the Hydrology and Water Quality Sub-Element of the in the proposed General Plan Update and compliance with standard conditions of development, no significant adverse impacts on water supplies or quality will occur under Alternative 1.

3.10.3.1.3. Alternative 1 Significance After Mitigation

Residual environmental effects associated with the implementation of the Alternative 1 project would essentially be the same as those for the Proposed Project. Through the application of the applicable General Plan policies and programs, and the mitigation measures set forth in Section 2.10.7 of this EIR, potential impacts can be avoided, minimized and/or reduced to levels that are less than significant.

3.10.3.1.4. Alternative 1 Cumulative Impacts

A consideration of cumulative effects associated with local and regional drainage, water resources and water quality includes the degree to which a project may contribute to the cumulative impacts from water usage and water pollution. Future development associated with the Alternative 1 project would require domestic water which would be withdrawn from the subsurface groundwater basin. Under Alternative 1, future development and redevelopment within the watershed would increase impermeable surfaces and decrease water percolation areas.

However, growth facilitated by the Alternative 1 would occur gradually over many years. Increased runoff and groundwater consumption would be expected to be similar to that of neighboring communities. Similar to the Proposed Project, future development projects would be required to implement standard measures to protect water supplies and quality. Overall, the Alternative 1 project will not significantly increase the community impacts associated with local or regional drainage, water resources or water quality in the City or Coachella Valley. Therefore, cumulative impacts would not be cumulatively considerable.

3.10.3.2. Alternative 2

3.10.3.2.1. Alternative 2 Impacts

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

Similar to the Proposed Project, development under the Alternative 2 would result in the following: 1) substantial additional sources of polluted runoff which would have short-term impacts on surface water, 2) pollutants, such as soils, debris, and other materials, in quantities that would potentially exceed water quality standards and otherwise significantly degrade water quality; and 3) non-point source pollution into surface and groundwater bodies. When compared to the Proposed Project, the Alternative 2 would have lower residential densities and generally less intense development with less population growth, resulting in less point- and non-point source pollutants. Alternative 2 has a potential to violate groundwater quality standards comparable to that associated of the Proposed Project and would be subject to the same regulations. Overall, Alternative 2 would reduce urban runoff and related waste discharges compared to the Proposed Project. As with the Proposed Project, General Plan policies and programs, and other applicable regulations will ensure that impacts are less than significant. Measures in Section 2.10.7 further ensure that Alternative 2 impacts will be less than significant.

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

Similar to the Proposed Project, Alternative 2 would provide for less intense land use and very modestly decreases groundwater demand compared to the Proposed Project. Using CVWD's annual water consumption factors, buildout of the proposed Alternative 2 could result in the demand for approximately 20,897 acre-feet per year (AFY) of domestic water, a 0.6 percent demand increase when compared to the Proposed Project. (see Table 3.10-1). Alternative 2 would not affect or interfere with local or regional groundwater recharge. Using CVWD's annual water consumption factors, buildout of the proposed Alternative 2 could result in the demand for approximately 20,897 acre-feet per year (AFY) of domestic water (Table 3.10-2).

Table 3.10-2
Estimated Water Demand at Alternative 2 Buildout

Land Use	CVWD Water Consumption Factor*	Conditions at General Plan Buildout (2040)	Total Water Demand (AFY) at General Plan Buildout (2040)
Single-Family Residential	2.31 acre-feet per acre per year (AFY)	6,845.00 acres	15,811.95
Multi-Family Residential	2.06 acre-feet per acre per year (AFY)	697.16 acres	1,436.15
Commercial	1.92 acre-feet per acre per year (AFY)	1,582.51 acres	3,038.42
Industrial	0.51 acre-feet per acre per year (AFY)	1,196.66 acres	610.30
		TOTAL	20,896.82

* CVWD's annual water consumption factors from Supplemental Water Supply Program and Fee Study Prepared for the City of Coachella in 2016.

As with the Proposed Project, General Plan policies and programs, and other applicable regulations will ensure that impacts to groundwater and related supplies, and to groundwater recharge, will be less than significant. Measures in Section 2.10.7 further ensure that Alternative 1 impacts will be less than significant.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

(i) result in substantial erosion or siltation on- or off-site;

Development under Alternative 2 would result in the construction of new features within the planning area that could result in permanent alterations to existing drainage patterns by converting areas within the planning area from pervious surfaces to impervious surfaces. Permanent development of impervious surfaces within the planning area would increase runoff and potentially increase erosion or worsen existing areas of erosion. When compared to the Proposed Project, the Alternative 2 would accommodate more less development but essentially on the same land area. Therefore, Alternative 2 would not result in increased erosion or siltation compared to the Proposed Project.

Compliance with federal, state, regional and local regulations and policies included in the proposed General Plan update would minimize the potential for erosion and siltation in the planning area. Overall, this impact would be reduced to less than significant levels for all project alternatives. In summary, planned development and improvements associated with and facilitated by Alternative 2 would not significantly alter existing drainage patterns nor would it result in the development of additional impervious surfaces that would substantially increase soil erosion or siltation within the City or in any downstream areas. Therefore, resulting erosion and siltation associated with Alternative 2 would be less than significant. Mitigation identified in Section 2.10.7 would further ensure that impacts are less than significant.

(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

The rate and amount of runoff associated with Alternative 2 would essentially be the same as that associated with the Proposed Project. As with the Proposed Project, this alternative does not propose alterations to the course of a stream, river, or improved channel. Neither would new lands be subject to development under Alternative 2, but might be less intensively developed. Therefore, Alternative 2 would not substantially increase the rate or amount of surface runoff that would result in flooding either within the City or regionally. While mitigation is not required, Section 2.10.7 includes avoidance, minimization and other measures that would further assure that potential flooding impacts associated with Alternative 2 would be less than significant.

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

iv) impede or redirect flood flows?

Alternative 2 is not expected to decrease the amount of impermeable surfaces, or if so only modestly. Neither is Alternative 2 expected to impede or redirect flood flows, or create or contribute volumes of runoff that would exceed the capacity of local or regional drainage facilities. Existing City regulations and those of the Regional Water Quality Control Board, along with and include required Water Quality Management Plans, will ensure that new development for all of the project alternatives are not substantial sources of polluted runoff. Development projects enabled under Alternative 2 would also be conditioned pursuant to the policies and programs set forth in the Flooding and Hydrology Sub-Element of the General Plan. Therefore, impacts would be compared to the Proposed Project and would be less than significant. While mitigation is not required, Section 2.10.7 includes avoidance, minimization and other measures that would further assure that potential flooding and water quality impacts associated with Alternative 2 would be less than significant.

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

Due to the inland location of the planning area, implementation of the Alternative 2 would not expose people or structures to hazards associated with inundation by a tsunami or seiche. Implementation of the Alternative 2 would result in land uses or development within areas subject to flooding from Santa Rosa foothills and in the northern portions of the City. With completion of the Eagle Canyon Dam, much of the southwest portion of the City that was subject to 100-year flood has been removed from this threat. All future development projects would be required to comply with all applicable federal, state, and local regulations related to flood hazards. Compliance with such regulations would ensure that impacts related to flooding are less than significant. To reduce the potential impact from seiche in water reservoirs, these facilities are built with battling that dampens such motion. Also, lands downstream of water reservoirs are designated generally in Open Space and in proximity to existing drainages. In addition, future development proposals would be evaluated on a case-by-case basis to assure that potential impacts associated with seiche would be minimized. Impacts associated with Alternative 2 would be less than significant.

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

Comparable to the Proposed Project, Alternative 2 would somewhat decrease the demand for domestic water, and it is not anticipated to conflict with Regional Water Control Board standards. Individual development projects developed under Alternative 2 would be assessed on a case-by-case basis for potential impacts related to water supplies and quality. Projects would be required to demonstrate adherence to applicable plans, policies, and regulations adopted for the purposed of reducing water quality impacts. Therefore, development facilitated by Alternative 2 would not conflict with or obstruct implementation of local or regional water quality control plans or sustainable groundwater management plans, and impacts to water quality and supplies would be less than significant.

3.10.3.2.2. Alternative 2 Mitigation Measures

No mitigation measures are required to address potential impacts associated with Alternative 2. As noted in Section 2.10, the General Plan Flooding and Hydrology Sun-Element and the Water Resources Sub-Elements include policies and programs that will serve to effectively avoid, minimize and otherwise mitigate potentially significant impacts to water resources or water quality, or from existing and future flood hazards that could result from implementation of each of the project alternatives. Implementation of the avoidance, minimization and other measures set forth in Section 2.10.7 of this EIR and relevant policies and programs set forth in the Hydrology and Water Quality Sub-Element of the in the proposed General Plan Update and compliance with standard conditions of development, no significant adverse impacts on water supplies or quality will occur under Alternative 2.

3.10.3.2.3. Alternative 2 Significance After Mitigation

Residual environmental effects associated with the implementation of the Alternative 1 project would essentially be the same as those for the Proposed Project. Through the application of the applicable General Plan policies and programs, and the mitigation measures set forth in Section 2.10.7 of this EIR, potential impacts can be avoided, minimized and/or reduced to levels that are less than significant.

3.10.3.2.4. Alternative 2 Cumulative Impacts

A consideration of cumulative effects associated with local and regional drainage, water resources and water quality includes the degree to which a project may contribute to the cumulative impacts from water usage and water pollution. Future development associated with the Alternative 2 project would require domestic water which would be drawn from the subsurface groundwater basin. Under Alternative 2, future development and redevelopment within the watershed would increase impermeable surfaces and decrease water percolation areas.

However, growth facilitated by the Alternative 2 would occur gradually over many years. Increased runoff and groundwater consumption would be expected to be similar to that of neighboring communities. Similar to the Proposed Project, future development projects would be required to implement standard measures to protect water supplies and quality. Overall, the Alternative 2 project will not significantly decrease the community impacts associated with local or regional drainage, water resources or water quality in the City or Coachella Valley. Therefore, cumulative impacts would not be cumulatively considerable.

3.10.3.3. Alternative 3

3.10.3.3.1. Alternative 3 Impacts

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

Similar to the Proposed Project, development under the Alternative 3 (No Project) would result in the following: 1) substantial additional sources of polluted runoff which would have short-term impacts on surface water, 2) pollutants, such as soils, debris, and other materials, in quantities that would potentially exceed water quality standards and otherwise significantly degrade water quality; and 3) non-point source pollution into surface and groundwater bodies. When compared to the Proposed Project, the Alternative 2 would have modestly lower residential densities and generally less intense development with less population growth, resulting in potentially less point- and non-point source pollutants. Alternative 3 would have a potential to violate groundwater quality standards comparable to that associated with the Proposed Project and would be subject to the same regulations. Overall, Alternative 3 could modestly decrease urban runoff and related waste discharges compared to the Proposed Project. As with the Proposed Project, General Plan policies and programs, and other applicable regulations will ensure that impacts are less than significant. Measures in Section 2.10.7 further ensure that Alternative 3 impacts will be less than significant.

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

Similar to the Proposed Project, Alternative 3 would allow somewhat less intense land use and very modestly decrease groundwater demand compared to the Proposed Project. Using CVWD's annual water consumption factors, buildout of the proposed Alternative 3 could result in the demand for approximately 21,043 acre-feet per year (AFY) of domestic water, a 1.3 percent increase in demand compared to the Proposed Project. (see Table 3.10-3). Alternative 3 would not affect or interfere with local or regional groundwater recharge. Using CVWD's annual water consumption factors, buildout of the proposed Alternative 3 could result in the demand for approximately 21,043 acre-feet per year (AFY) of domestic water (Table 3.10-3).

Table 3.10-3
Estimated Water Demand at Alternative 3 Buildout

Land Use	CVWD Water Consumption Factor*	Conditions at General Plan Buildout (2040)	Total Water Demand (AFY) at General Plan Buildout (2040)
Single-Family Residential	2.31 acre-feet per acre per year (AFY)	6,824.03	15,763.51
Multi-Family Residential	2.06 acre-feet per acre per year (AFY)	785.51	1,618.15
Commercial	1.92 acre-feet per acre per year (AFY)	1,636.32	3,141.73
Industrial	0.51 acre-feet per acre per year (AFY)	1,018.15	519.26
		TOTAL	21,042.65

* CVWD's annual water consumption factors from Supplemental Water Supply Program and Fee Study Prepared for the City of Coachella in 2016.

As with the Proposed Project, General Plan policies and programs, and other applicable regulations will ensure that impacts to groundwater and related supplies, and to groundwater recharge, will be less than significant. Measures in Section 2.10.7 further ensure that Alternative 3 impacts will be less than significant.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

(i) result in substantial erosion or siltation on- or off-site;

Development under Alternative 3 would result in the construction of new features within the planning area that could result in permanent alterations to existing drainage patterns by converting areas within the planning area from pervious surfaces to impervious surfaces. Permanent development of impervious surfaces within the planning area would increase runoff and potentially increase erosion or worsen existing areas of erosion. When compared to the Proposed Project, the Alternative 3 would accommodate more somewhat less development but essentially on the same land area. Therefore, Alternative 3 would not result in increased erosion or siltation compared to the Proposed Project.

Compliance with federal, state, regional and local regulations and policies included in the proposed General Plan update would minimize the potential for erosion and siltation in the planning area. Overall, these impacts would be reduced to less than significant levels for all project alternatives. In summary, planned development and improvements associated with and facilitated by Alternative 3 would not significantly alter existing drainage patterns nor would it result in the development of additional impervious surfaces that would substantially increase soil erosion or siltation within the City or in any downstream areas. Therefore, resulting erosion and siltation associated with Alternative 3 would be less than significant. Mitigation identified in Section 2.10.7 would further ensure that impacts are less than significant.

(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

The rate and amount of runoff associated with Alternative 3 would essentially be the same as that associated with the Proposed Project. As with the Proposed Project, this alternative does not propose alterations to the course of a stream, river, or improved channel. Neither would new lands be subject to development under Alternative 3, but could be less intensively developed. Therefore, Alternative 3 would not substantially increase the rate or amount of surface runoff that would result in flooding either within the City or regionally. While mitigation is not required, Section 2.10.7 includes avoidance, minimization and other measures that will further assure that potential flooding impacts will be less than significant.

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

(iv) impede or redirect flood flows?

Alternative 3 is not expected to decrease the amount of impermeable surfaces, or if so only modestly. Neither is Alternative 3 expected to impede or redirect flood flows, or create or contribute volumes of runoff that would exceed the capacity of local or regional drainage facilities. Existing City regulations and those of the Regional Water Quality Control Board, along with and include required Water Quality Management Plans, will ensure that new development for all of the project alternatives are not substantial sources of polluted runoff. Development projects enabled under Alternative 3 would also be conditioned pursuant to the policies and programs set forth in the Flooding and Hydrology Sub-Element of the General Plan. Therefore, Alternative 3 impacts would be compared to the Proposed Project and will be less than significant. While mitigation is not required, Section 2.10.7 includes avoidance, minimization and other measures that will further assure that potential flooding and water quality impacts will be less than significant.

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

Due to the inland location of the planning area, implementation of the Alternative 3 would not expose people or structures to hazards associated with inundation by a tsunami or seiche. Implementation of the Alternative 31 would result in land uses or development within areas subject to flooding from Santa Rosa foothills and in the northern portions of the City. With completion of the Eagle Canyon Dam, much of the southwest portion of the City that was subject to 100-year flood has been removed from this threat. All future development projects would be required to comply with all applicable federal, state, and local regulations related to flood hazards. Compliance with such regulations would ensure that impacts related to flooding are less than significant. To reduce the potential impact from seiche in water reservoirs, these facilities are built with battling that dampens such motion. Also, lands downstream of water reservoirs are designated generally in Open Space and in proximity to existing drainages. In addition, future development proposals would be evaluated on a case-by-case basis to assure that potential impacts associated with seiche would be minimized. Impacts associated with Alternative 3 would be less than significant.

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

Similar to the Proposed Project, Alternative 3 would somewhat decrease the demand for domestic water, and it is not anticipated to conflict with Regional Water Control Board standards. Individual development projects developed under Alternative 3 will be assessed on a case-by-case basis for potential impacts related to water supplies and quality. Projects will be required to demonstrate adherence to applicable plans, policies, and regulations adopted for the purposed of reducing water quality impacts. Therefore, development facilitated by Alternative 3 would not conflict with or obstruct implementation of local or regional water quality control plans or sustainable groundwater management plans, and impacts to water quality and supplies would be less than significant.

3.10.3.3.2. Alternative 3 Mitigation Measures

No mitigation measures are required to address potential impacts associated with Alternative 3. As noted in Section 2.10, the General Plan Flooding and Hydrology Sun-Element and the Water Resources Sub-Elements include policies and programs that will serve to effectively avoid, minimize and otherwise mitigate potentially significant impacts to water resources or water quality, or from existing and future flood hazards that could result from implementation of each of the project alternatives. Implementation of the avoidance, minimization and other measures set forth in Section 2.10.7 of this EIR and relevant policies and programs set forth in the Hydrology and Water Quality Sub-Element of the in the proposed General Plan Update and compliance standard conditions of development, no significant adverse impacts on water supplies or quality will occur under Alternative 3.

3.10.3.3.3. Alternative 3 Significance After Mitigation

Residual environmental effects associated with the implementation of the Alternative 3 project would essentially be the same as those for the Proposed Project. Through the application of the applicable General Plan policies and programs, and the mitigation measures set forth in Section 2.10.7 of this EIR, potential impacts can be avoided, minimized and/or reduced to levels that are less than significant.

3.10.3.3.4. Alternative 3 Cumulative Impacts

A consideration of cumulative effects associated with local and regional drainage, water resources and water quality includes the degree to which a project may contribute to the cumulative impacts from water usage and water pollution. Future development associated with the Alternative 3 project would require domestic water which would be drawn from the subsurface groundwater basin. Under Alternative 3, future development and redevelopment within the watershed would increase impermeable surfaces and decrease water percolation areas. However, growth facilitated by the Alternative 3 would occur gradually over many years.

Increased runoff and groundwater consumption would be expected to be similar to that of neighboring communities. Similar to the Proposed Project, future development projects would be required to implement standard measures to protect water supplies and quality. Overall, the Alternative 3 project will not significantly increase the community impacts associated with local or regional drainage, water resources or water quality in the City or Coachella Valley. Therefore, cumulative impacts would not be cumulatively considerable.

3.10.4. Environmental Superior Alternative

Based simply on the extent and intensity of development facilitated under each of the alternatives analyzed, including the Proposed Project, Alternative 2 would appear to have the least potential to generate significant impacts to local and regional drainage systems, to the local and regional water supply, or to surface and sub-surface water quality. However, all would be subject to applicable laws, regulations and guidelines, as well as the various policies and programs set forth in the Flooding and Hydrology Sub-Element and the Water Resources Sub-Element of the proposed General Plan. Nonetheless, in the overall, Alternative 2 would appear to be modestly superior to the other alternatives.

3.11. Land Use Planning

3.11.1. Introduction

Section 3.0 provides mapping and land use allocation tables for the three alternatives analysed in this section of the EIR and evaluates the compatibility of and potential impacts of the project alternatives. It is assumed that the same General Plan policies and programs set forth in the Proposed Project are applicable to the alternatives. Potential land use impacts from implementation of the alternatives are described in general terms. It should be noted that esign elements of the proposed General Plan that avoid or minimize impacts are also applicable to the alternatives.

3.11.2. Existing Conditions

As noted in Section 2.11, large portions of the City are already developed with a full mix of land uses. Several areas in the already urbanized portions of the City are vacant and available primarily for in-fill development. These include lands abutting the Santa Rosa foothills on the south, portions of the City Downtown both north and south of East Palm Canyon Drive, lands along the west side of Date Palm Drive between Ramon Road and Dinah Shore Drive, and lands adjacent to and near the Whitewater River north and south of Ramon Road. Larger undeveloped lands in the southern portion of the City include the northwest corner of Gerald Ford Drive and Da Vall Drive, east of Date Palm Drive and north of 30th Avenue, and areas west of Date Palm Drive and north of Vista Chino. North of the Union Pacific Railroad/Interstate-10 corridor, lands are essentially vacant, with the exception of two water reservoirs, wind turbines on the west slope of Edom Hill and electrical transmission towers. Lands in the extreme eastern portion of the City at the intersection of I-10 and Bob Hope Drive are just beginning to develop.

3.11.3. Alternatives Impact Analysis

3.11.3.1. Alternative 1

3.11.3.1.1. Alternative 1 Impacts

a) Physically divide an established community?

Alternative 1 differs from the Proposed Project in that it increases the permitted residential densities for some of the residential land use categories, increasing the possible number of dwelling units. None of the Alternative 1 land use designation, nor the goals, policies or programs set forth in the Land Use Element will act to physically divide an established community. As with the Proposed Project, Alternative 1 provides for mixed-use and transit-oriented development and the repurposing of vacated buildings and underutilized sites. It does not include any new arterial roadways or other potential neighborhood-dividing development. Policies and programs set forth in the proposed General Plan are applicable to the Alternative 1 scenario, and this alternative continues to encourage the expansion of the City's multi-modal transportation system, including the implementation of *Complete Streets* design principles and the new *Active Transportation Plan*, which is also integral part of the Proposed Project. Therefore, the implementation of Alternative 1 would not physically divide an established community.

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

The City's corporate limits abut the Santa Rosa and San Jacinto Mountains National Monument (SRSJMNM). As with the proposed General Plan, Alternative 1 designates public lands in these areas as Open Space-Public and the limited private lands that occur there as Hillside Reserve (1 du/20 acres). Areas of steep terrain and with other development constraints are well regulated by the proposed general Plan, which will not conflict with the plans and regulations of the National Monument. Alternative 1 also does not change land use designations in proximity to any Conservation Area established by the Coachella Valley Multiple Species Habitat Conservation Plan and would be required to conform to that Plan's *Land Use Adjacency Guidelines.* Therefore, Alternative 1 is in conformance and will not conflict with the MSHCP.

With regard to the compatibility of Alternative 1 with the Palm Springs International Airport master plan, most of the City occurs within Compatibility Zones D and E, which are the least restrictive. A small portion is located within Zone C but primarily are lands in the Whitewater River where no development will occur; however, a small developed portion of the "Dream Homes" neighborhood would remain in this zone but outside the long-term 60 CNEL noise contour. Implementation of Alternative 1 does not conflict with the airport land use plan.

The Agua Caliente Band of Cahuilla Indians (ACBCI) has Tribal, allottee and fee lands within the Cathedral City limits and the Tribe and the City have entered into a Land Use Contract for the planning and management of these lands. The Tribe authorizes the City to manage the development of these lands, although it reserves the right to exercise its own authority in rare cases. The Tribe recognizes the City's General Plan and Land Use Plan; therefore, Alternative 1 does not conflict with a Tribal land use plan.

In summary, Alternative 1 does not conflict with any other land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, potential impacts with regard to land use planning will be less than significant.

3.11.3.1.2. Alternative 1 Mitigation Measures

No mitigation is required. Nonetheless, as provided for in Section 2.11.7, individual development projects, including those involving a mix of residential and other uses, and those located nearby or adjacent to sensitive lands or uses, will be fully evaluated during the City's project review process to assure that all land use compatibility issues are addressed and mitigated.

3.11.3.1.3. Alternative 1 Significance After Mitigation

The Alternative 1 project will not result in or create any significant land use conflicts nor will it divide an existing community or neighborhood or one that may be created pursuant to the proposed General Plan. Therefore, no mitigation is required and there will be no significant residual environmental effects.

3.11.3.1.4. Alternative 1 Cumulative Impacts

The implementation of the Alternative 1 project would not contribute to the physical creation of divided or isolated communities. As with the Proposed Project, it will serve to ensure that such impacts do not occur in the future and will also serve to better integrate and unify the City's existing neighborhoods. Neither will Alternative 1 cause any significant environmental impacts due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, Alternative 1 will not result in impacts that cumulatively considerable.

3.11.3.2. Alternative 2

3.11.3.2.1. Alternative 1 Impacts

a) Physically divide an established community?

Alternative 2 differs from the Proposed Project in that it decreases the permitted residential densities for some of the residential land use categories, increasing the possible number of dwelling units. It also changes land use assignments, including a change in the northern portions of the City from Mix-Use Neighborhood to Industrial within the North City Extended Specific Plan but in an area that is bounded on one side by future stormwater retention facilities and on the other by planned public streets. None of the Alternative 2 land use designation, nor the goals, policies or programs set forth in the Land Use Element of the Proposed Project will act to physically divide an established community.

As with the Proposed Project, Alternative 2 continues to provide for mixed-use and transit-oriented development, albeit with minor reductions, and the repurposing of vacated buildings and underutilized sites. It does not include any new arterial roadways or other potential neighborhood-dividing development. Policies and programs set forth in the proposed General Plan are applicable to the Alternative 2 scenario, and this alternative continues to encourage the expansion of the City's multi-modal transportation system, including the implementation of *Complete Streets* design principles and the new *Active Transportation Plan*, which is also integral part of the Proposed Project. Therefore, the implementation of Alternative 2 would not physically divide an established community.

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

The City's corporate limits abut the Santa Rosa and San Jacinto Mountains National Monument (SRSJMNM). As with the proposed General Plan, Alternative 2 designates public lands in these areas as Open Space-Public and the limited private lands that occur there as Hillside Reserve (1 du/20 acres). Areas of steep terrain and with other development constraints are well regulated by the proposed General Plan, which will not conflict with the plans and regulations of the National Monument. Alternative 1 also does not change land use designations in proximity to any Conservation Area established by the Coachella Valley Multiple Species Habitat Conservation Plan and would be required to conform to that Plan's *Land Use Adjacency Guidelines.* Therefore, Alternative 2 is in conformance and will not conflict with the MSHCP.

With regard to the compatibility of Alternative 2 with the Palm Springs International Airport master plan, most of the City occurs within Compatibility Zones D and E, which are the least restrictive. A small portion is located within Zone C but primarily are lands in the Whitewater River where no development will occur; however, a small developed portion of the "Dream Homes" neighborhood would remain in this zone but outside the long-term 60 CNEL noise contour. Implementation of Alternative 2 does not conflict with the airport land use plan.

The Agua Caliente Band of Cahuilla Indians (ACBCI) has Tribal, allottee and fee lands within the Cathedral City limits and the Tribe and the City have entered into a Land Use Contract for the planning and management of these lands. The Tribe authorizes the City to manage the development of these lands, although it reserves the right to exercise its own authority in rare cases. The Tribe recognizes the City's General Plan and Land Use Plan; therefore, Alternative 1 does not conflict with a Tribal land use plan.

In summary, Alternative 2 does not conflict with any other land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, potential impacts with regard to land use planning will be less than significant.

3.11.3.2.2. Alternative 2 Mitigation Measures

No mitigation is required. Nonetheless, as provided for in Section 2.11.7, individual development projects, including those involving a mix of residential and other uses, and those located nearby or adjacent to sensitive lands or uses, will be fully evaluated during the City's project review process to assure that all land use compatibility issues are addressed and mitigated.

3.11.3.2.3. Alternative 2 Significance After Mitigation

The Alternative 2 project will not result in or create any significant land use conflicts nor will it divide an existing community or neighborhood or one that may be created pursuant to the proposed General Plan. Therefore, no mitigation is required and there will be no significant residual environmental effects.

3.11.3.2.4. Alternative 2 Cumulative Impacts

The implementation of the Alternative 2 project would not contribute to the physical creation of divided or isolated communities. As with the Proposed Project, Alternative 2 will serve to ensure that such impacts do not occur in the future and will also serve to better integrate and unify the City's existing neighborhoods. Neither will Alternative 2 cause any significant environmental impacts due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, Alternative 2 will not result in impacts that cumulatively considerable.

3.11.3.3. Alternative 3

3.11.3.3.1. Alternative 3 Impacts

a) Physically divide an established community?

Alternative 3, the No Project Alternative, differs from the Proposed Project in that it modestly increases residential buildout overall, increasing potential industrial development and decreases commercial land use designations. None of the Alternative 3 land use designation, nor the goals, policies or programs set forth in the proposed General Plan Land Use Element will act to physically divide an established community. As with the Proposed Project, Alternative 3 provides for mixed-use and transit-oriented development and the repurposing of vacated buildings and underutilized sites. It does not include any new arterial roadways or other potential neighborhood-dividing development. Policies and programs set forth in the proposed General Plan are applicable to the Alternative 3 scenario, and this alternative continues to encourage the expansion of the City's multi-modal transportation system, including the implementation of *Complete Streets* design principles and the new *Active Transportation Plan*, which is also integral part of the Proposed Project. Therefore, the implementation of Alternative 3 would not physically divide an established community.

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

The City's corporate limits abut the Santa Rosa and San Jacinto Mountains National Monument (SRSJMNM). As with the proposed General Plan, Alternative 3 designates public lands in these areas as Open Space-Public and the limited private lands that occur there as Hillside Reserve (1 du/20 acres). Areas of steep terrain and with other development constraints are well regulated by the proposed General Plan, which will not conflict with the plans and regulations of the National Monument. Alternative 3 also does not change land use designations in proximity to any Conservation Area established by the Coachella Valley Multiple Species Habitat Conservation Plan and would be required to conform to that Plan's *Land Use Adjacency Guidelines.* Therefore, Alternative 3 is in conformance and will not conflict with the MSHCP.

3.11.3.3.2. Alternative 3 Mitigation Measures

No mitigation is required. Nonetheless, as provided for in Section 2.11.7, individual development projects, including those involving a mix of residential and other uses, and those located nearby or adjacent to sensitive lands or uses, will be fully evaluated during the City's project review process to assure that all land use compatibility issues are addressed and mitigated.

3.11.3.3.3. Alternative 3 Significance After Mitigation

The Alternative 3 project will not result in or create any significant land use conflicts nor will it divide an existing community or neighborhood or one that may be created pursuant to the proposed General Plan. Therefore, no mitigation is required and there will be no significant residual environmental effects.

3.11.3.3.4. Alternative 3 Cumulative Impacts

The implementation of the Alternative 3 project would not contribute to the physical creation of divided or isolated communities. As with the Proposed Project, Alternative 3 serves to ensure that such impacts do not occur in the future and also serves to integrate and unify the City's existing neighborhoods. Neither will Alternative 3 cause any significant environmental impacts due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, Alternative 3 will not result in impacts that cumulatively considerable.

3.11.4. Environmental Superior Alternative

Judged strictly on the basis of which alternative poses the least threat in terms of dividing neighborhoods or communities, or to causing significant environmental impacts due to conflicts with other land use plans, policies, or regulations that avoid or mitigate environmental effects, all three alternative are equal. Alternative 3 does not incorporate some of the land use changes that further the development of mixed-use neighborhoods, and in this regard could be construed as being inferior to the other project alternatives and the Proposed Project.

3.12. Noise

3.12.1. Introduction

This section of the EIR analyzes the potential impacts of the three project alternatives with regard to the local noise environment within the City planning area and compares these potential impacts to surrounding sensitive receptors compared to the Proposed Project and each other. Continued buildout of the City will take place adjacent to noise-sensitive land uses and, therefore, will introduce both temporary and long-term noise increases to the existing ambient noise environment. The analysis centers on future traffic noise and on vibratory noise associated with operations on Union Pacific Railroad (UPRR) lines, and also addresses stationary sources of community noise. A detailed discussion of noise, noise measurement and other data and information can be found in Section 2.12 and in Appendix D.

3.12.2. Existing Conditions

Existing conditions in the community noise environment were measured on multiple levels: along major City roadways, along the Union Pacific Railroad/US Interstate-10 transportation corridor, along the rail line during train passages, and in the vicinity of the Palm Springs International Airport. Measurements were a combination of short and long duration and included 24-hour measurements at several locations in the community.

In summary, community traffic noise ranges from about 53.6 dBA Leq to 72.2 dBA Leq, and from 59.2 CNEL (Community Noise Equivalency Level) to 69.7 (see Table 2.12-2). On a CNEL basis, airport noise is substantially lower, at approximately 60 CNEL or less at the western city limits. While individual aircraft operations can generate intrusive short-term noise levels, these generally occur during the day, which is the least sensitive period. Railroad operations generate a unique vibratory noise profile that is measured in decibels and noted as Vdb. This profile is associated with rolling and impact vibrations from railroad engines and cars and ranges from approximately 66 Vdb to 78 Vdb at 100 feet from the train. Please see Section 2.12 for a detailed discussion of the existing noise environment.

3.12.3. Alternatives Impact Analysis

It should be noted that the future community noise environment will be similarly impacted in the Alternative 1 (More Intense), 2 (Less Intense) and 3 (No Project) project alternatives. Therefore, future impacts, mitigation measures, post-mitigation residual impacts, and cumulative impacts are covered in one discussion. Please also see Section 2.12 for details on how future noise sources and levels will impact the community and how they are mitigated.

3.12.3.1. Alternatives 1, 2 & 3

3.12.3.1.1. Alternatives 1, 2 and 3 Impacts

a) Generation of substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Community exterior noise levels are primarily affected by vehicular traffic with the highest volumes and noise levels occurring during the least sensitive times of the day. Traffic noise levels can generate significant noise impacts to nearby sensitive receptors. Residences located closest to the UPRR/I-10 corridor will experience the worst noise intrusion due to higher night-time truck volumes and intermittent train noise, which will occur during the most sensitive times of the evening.

Nonetheless, buildout of the alternatives and the proposed General Plan, compared to existing conditions, will generate traffic noise level changes ranging from decreases of 0.7 to increases of 0.6 dBA CNEL on the study area roadways. This is well below the 3 dBA CNEL impact that is noticeable. With noise management policies and programs set forth in the General Plan Noise Sub-Element, and the noise avoidance, minimization and mitigation measures in Section 2.12.7, the on-site transportation noise levels at future development within the City can be reduced to a range of "*normally acceptable to normally unacceptable"*. If future developments are properly conditioned, interior noise levels satisfying the 45 dBA CNEL interior noise level standard for noise-sensitive uses can be achieved.

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

Rail activities are projected to generate vibration levels of up to 84 VdB at 50 feet from trains traveling at 50 mph. At the typical speed of 70 mph of rail activities on rail lines passing through the City, the reference vibration level is increased by 2.9 VdB, and results in estimated vibration impacts of 86.9 VdB at 50 feet from the railroad tracks. The analysis shows that noise-sensitive and non-noise-sensitive uses within the City could be located within 50 to 150 feet of the UPRR railroad tracks and, therefore, may experience vibration levels which would exceed the noise-sensitive 72 VdB and non-noise-sensitive 75 VdB criteria for frequent rail events identified by the FTA. Policies and programs set forth in the Noise Sub-Element, including Program 1.D, require identification and application of all practicable measures to satisfy the 72 VbD criterium. The avoidance and minimization measures set forth in Section 2.2.7 will also reduce or otherwise mitigate these potential impacts to less than significant levels.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Mapping of future (2025) noise conditions generated by the Palm Springs International Airport (PSP) indicate that the 60 dBA CNEL noise level contour boundary will shift to partially overlap with City boundaries east of San Joaquin Drive and north of Mission Drive. As a result, noise levels due to aircraft flyover events associated with Palm Springs International Airport under Future (2025) conditions are anticipated to be equal to or less than those identified under Existing (2002) conditions. Given the location of the 2025 60 dBA CNEL PSP noise contour, little or no specific mitigation would be required to ensure that new residential development satisfies the 45 dBA CNEL interior noise level standard. Therefore, while noise from aircraft operations will likely be heard, they will not significantly impact noise-sensitive uses in the City.

3.12.3.1.2. Alternatives 1, 2 and 3 Mitigation Measures

General Plan Noise Policy 1, and Program 1.B and 1.C will ensure that future development institutes all practicable noise mitigation measures to reduce community noise levels to acceptable levels. Policies 2 and 3, and Programs 2.A, 2.B and 2.C further ensure that adequate noise analysis and mitigation will be implemented to ensure that proposed uses are compatible with the future noise environment. Therefore, through the application of General Plan policies and programs, as well as the City's noise ordinance, on-site traffic noise impacts can be considered less than significant. Applicable General Plan programs are also cited in Section 2.12.7 below.

With regard to railroad noise, policies and programs set forth in the Noise Sub-Element, including Program 1.D, require identification and application of all practicable measures to satisfy the 72 VbD criterium. The avoidance and minimization measures set forth in Section 2.2.7 will also reduce or otherwise mitigate these potential impacts to less than significant levels.

Based on applicable PSP land use policies, "*dwellings may require incorporation of special noise level reduction measures into their design to ensure* (compliance with) *the interior noise limit of 45 dB CNEL"*. These features would be incorporated into new residential construction as part of the building permit process, and based on the exterior noise levels approaching and around 60 dBA CNEL, are anticipated to reduce aircraft flyover noise to below the 45 dBA CNEL interior noise level standard for residential uses with standard building construction. Given the location of the 2025 60 dBA CNEL PSP noise contour, little or no specific mitigation would be required to ensure that new residential development satisfies the 45 dBA CNEL interior noise level standard. Therefore, while noise from aircraft operations will likely be heard, they will not significantly impact noise-sensitive uses in the City. In summary and as noted above, the General Plan Noise Sub-Element and the Circulation and Mobility Elements include policies and programs that will serve to effectively avoid, minimize and otherwise mitigate potentially significant noise impacts to the community that could result from implementation of the General Plan update. Additional measures set forth in Section 2.12 further serve to reinforce actions to be taken by the City and applicants to ensure that the community noise environment is compatible with planned land uses.

3.12.3.1.3. Alternatives 1, 2 and 3 Significance After Mitigation

The Noise Sub-Element policies and programs, as well as many of those set forth in the Circulation and Mobility Element, will ensure that the community has a long-term noise environment that is compatible with planned land uses. With implementation of the General Plan policies and programs, and the avoidance, minimization and other measures set forth in Section 2.12.7 of the EIR, significant, unmitigated impacts to the noise environment or noise sensitive land uses can be avoided.

3.12.3.1.4. Alternative 1, 2 and 3 Cumulative Impacts

The cumulative impacts analysis for noise is based upon the General Plan alternatives' incremental effect and whether they are cumulatively considerable, as defined in CEQA Section 15130(a)(1), and include an evaluation of the cumulative effects of other projects in the planning area. As described in Section 2.12, noise impacts are essentially local and quickly dissipate with distance but can be compounding in areas close to a particular noise source. Indicative of the limited cumulative impact from the buildout of the proposed General Plan and the alternatives is that, compared to existing conditions, they will generate traffic noise level changes ranging from decreases of 0.7 to increases of 0.6 dBA CNEL on the study area roadways. This is well below the 3 dBA CNEL impact that is noticeable. The future 60 dBA CNEL airport noise contour will actually contract and be further removed from the City by the year 2025. And rail traffic will increase modestly and remain an intermittent noise generator. Therefore, the implementation of the updated General Plan will not result in impacts to the noise environment that are cumulatively considerable.

3.12.4. Environmentally Superior Alternative

Alternative 2 is arguably the environmentally superior alternative when compared to the Proposed Project and other alternatives. However, while Alternative 2 may result in modestly lower traffic volumes and noise levels on some local streets, none of the alternatives will affect traffic on US Interstate-10 or the UPRR lines. Nor will Alternative 2 have any measurable effect on noise levels generated by the airport.

3.13. Parks and Recreational Resources

3.13.1. Introduction

This section of the EIR analyzes the potential impacts to parks and recreational resources associated with the alternatives to the proposed Cathedral City General Plan update based on regional and local park lands and facilities. The planning area is located within the Coachella Valley which provides a wide range of recreational opportunities to residences and visitors. The analysis considers whether and to what extent buildout of the alternatives and their associated populations would have on these local and regional parks and other recreational facilities.

3.13.2. Existing Conditions

Regional and Local Parks and Recreational facilities

The planning area is located within the Coachella Valley where each city operates and maintains local parks and other recreational open space and facilities. The valley is also host to a wide range of county, state and federal open space lands and parks, including Joshua Tree National Park, Mt. San Jacinto State Park, the Santa Rosa and San Jacinto Mountains National Monument and other public parks, monuments and open space areas. The Coachella valley and City are also host to a significant number of private and public golf courses, and a wide range of other private recreational facilities. Cathedral City has eleven developed parks and one adjacent to the new CV Link that total more than 73 acres, and the City also has an additional 146± acres of currently undeveloped park lands. In addition to the above, the City has developed nearly 30 miles of bike paths, trails and lanes on local streets.

3.13.3. Alternatives Impact Analysis

3.13.3.1. Alternative 1

3.13.3.1.1. Alternative 1 Impacts

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

Buildout of the Alternative 1 will result in a limited increase in the number of residential units and permanent population within the City compared to the Proposed Project, but the long-term increase under this alternative would nonetheless be substantial. Under Alternative 1, the proposed General Plan update would increase the City's population by approximately 115,593 residents based on 100 percent occupancy of all new residential units. These residents would create a demand for approximately 200 additional acres of parks and other recreational lands beyond that currently available for future development. Future residents would likely use both existing and planned parks and recreational facilities in the City and could also avail themselves of local, regional and state in the vicinity.

Similar to the Proposed Project, Alternative 1 demand for parks and other recreational space and facilities would grow over time and the City will need to plan to incrementally acquire these lands to accommodate future growth. Based on the current inventory of undeveloped parks lands in the City, it could accommodate an additional population of approximately 48,000 before additional lands would be needed. Under Alternative 1 and the other alternatives, the City should be able to incrementally acquire additional park lands and address future needs before they arise. Therefore, impacts would be less than significant, and comparable to the level of impact as the Proposed Project.

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

As noted above, approximately 200 additional acres of future parkland could be needed to accommodate maximum City growth through buildout. The City should expect to acquire these lands through development exactions and in-kind land contributions as part of development impact assessments as provided for in the City Municipal Code. Approximately 3,600 acres of vacant land is currently available for residential planning and development or about 5.5 percent of these lands. The City also has extensive areas of lands dedicated to or planned for open space conservation, and portions of these lands may also be available for hiking and other "passive" recreational use without compromising the conservation value of these lands. Therefore, buildout of the Alternative 1 scenario can be accomplished without having an adverse effect on the environment and such impacts would be less than significant.

3.13.3.1.2. Alternative 1 Mitigation Measures

No mitigation measures are required. As noted above, the General Plan Parks and Recreation Element and the Open Space and Conservation Elements include policies and programs that will serve to effectively avoid, minimize and otherwise mitigate potentially significant impacts to community parks and recreation facilities and lands that could result from implementation of Alternative 1. Section 2.13.7 also includes avoidance, minimization and other measures that further ensure that the community's future demand for parks and recreation lands will be met and in an environmentally responsible manner.

3.13.3.1.3. Alternative 1 Significance After Mitigation

Residual environmental effects associated with the implementation of the Alternative 1 project would essentially be the same as those for the Proposed Project. Through the implementation of applicable General Plan policies and programs, and the measures set forth in Section 2.13.7 of this EIR, potential impacts can be avoided, minimized and/or reduced to levels that are less than significant.

3.13.3.1.4. Alternative 1 Cumulative Impacts

A consideration of cumulative effects associated with parks and recreation resources includes the degree to which a project may trigger the construction or expansion of recreational facilities and would cause physical deterioration to the existing parks and recreation facilities. Future development associated with the Alternative 1 project would generate more population and demand for parks and related open space and facilities. As noted above, sufficient lands have already been acquired to accommodate a major portion of future demand and additional lands will be available to meet all of the City's obligations. The significant areas of public lands and associated opportunities for recreation also ensure that the impacts associated with Alternative 1 will not be cumulatively considerable.

3.13.3.2. Alternative 2

3.13.3.2.1. Alternative 2 Impacts

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

Buildout of the Alternative 2 will result in a limited increase in the number of residential units and permanent population within the City compared to the Proposed Project, but the long-term increase under this alternative would nonetheless be substantial. Under Alternative 2, the proposed General Plan update would increase the City's population by approximately 82,435 residents based on 100 percent occupancy of all new residential units. These

residents would create a demand for approximately 100 additional acres of parks and other recreational lands beyond that currently available for future development. Future residents would likely use both existing and planned parks and recreational facilities in the City and could also avail themselves of local, regional and state in the vicinity.

Similar to the Proposed Project, Alternative 2 demand for parks and other recreational space and facilities would grow over time and the City will need to plan to incrementally acquire these lands to accommodate future growth. Based on the current inventory of undeveloped parks lands, the City could accommodate an additional population of approximately 48,000 before additional lands would be needed. Under Alternative 2 and the other alternatives, the City should be able to incrementally acquire additional park lands and address future needs before they arise. Therefore, impacts would be less than significant, and comparable to the level of impact as the Proposed Project.

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

Buildout of Alternative 2 would require approximately 100 additional acres of future parkland to accommodate maximum City growth through buildout. The City should expect to acquire these lands through development exactions and in-kind land contributions as part of development impact assessments as provided for in the City Municipal Code. Approximately 3,600 acres of vacant land is currently available for residential planning and development or about 5.5 percent of these lands. The City also has extensive areas of lands dedicated to or planned for open space conservation, and portions of these lands may also be available for hiking and other "passive" recreational use without compromising the conservation value of these lands. Therefore, buildout of the Alternative 2 scenario can be accomplished without having an adverse effect on the environment and such impacts would be less than significant.

3.13.3.2.2. Alternative 2 Mitigation Measures

No mitigation measures are required. The General Plan Parks and Recreation Element and the Open Space and Conservation Elements include policies and programs that will serve to effectively avoid, minimize and otherwise mitigate potentially significant impacts to community parks and recreation facilities and lands that could result from implementation of Alternative 2. Section 2.13.7 also includes avoidance, minimization and other measures that further ensure that the community's future demand for parks and recreation lands under Alternative 2 can be met and in an environmentally responsible manner.

3.13.3.2.3. Alternative 2 Significance After Mitigation

Residual environmental effects associated with the implementation of the Alternative 2 project would essentially be the same as those for the Proposed Project. Through the implementation of applicable General Plan policies and programs, and the measures set forth in Section 2.13.7 of this EIR, potential impacts can be avoided, minimized and/or reduced to levels that are less than significant.

3.13.3.2.4. Alternative 2 Cumulative Impacts

Cumulative effects associated with parks and recreation resources are gauged by the degree to which a project may trigger the construction or expansion of recreational facilities and would cause physical deterioration to the existing parks and recreation facilities. Future development associated with the Alternative 2 project would generate less population and demand for parks and related open space and facilities when compared to the other alternatives. As noted, sufficient lands have already been acquired to accommodate more than half of the future demand generated by Alternative 2, and additional lands will be available to meet all of the City's obligations. The significant areas of public lands and associated opportunities for recreation also ensure that the impacts associated with Alternative 2 will not be cumulatively considerable.

3.13.3.3. Alternative 3

3.13.3.3.1. Alternative 3 Impacts

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

Buildout of the Alternative 3 will result in a limited decrease in the number of residential units and permanent population within the City compared to the Proposed Project, but the long-term increase under this alternative would nonetheless be substantial. Under Alternative 3, the proposed General Plan update would increase the City's population by approximately 103,756 residents based on 100 percent occupancy of all new residential units. These residents would create a demand for approximately 163 additional acres of parks and other recreational lands beyond that currently available for future development. Future residents would likely use both existing and planned parks and recreational facilities in the City and could also avail themselves of local, regional and state in the vicinity.

Similar to the Proposed Project, Alternative 3 demand for parks and other recreational space and facilities would grow over time and the City will need to plan to incrementally acquire these lands to accommodate future growth. Based on the current inventory of undeveloped parks lands, the City could accommodate an additional population of approximately 48,000 before additional lands would be needed. Under Alternative 3 and the other alternatives, the City should be able to incrementally acquire additional park lands and address future needs before they arise. Therefore, impacts would be less than significant, and comparable to the level of impact as the Proposed Project.

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

Buildout of Alternative 3 would require approximately 163 additional acres of future parkland to accommodate maximum City growth through buildout. The City can expect to acquire these lands through development exactions and in-kind land contributions as part of development impact assessments as provided for in the City Municipal Code. Approximately 3,600 acres of vacant land is currently available for residential planning and development or about 5.5 percent of these lands. The City also has extensive areas of lands dedicated to or planned for open space conservation, and portions of these lands may also be available for hiking and other "passive" recreational use without compromising the conservation value of these lands. Therefore, buildout of the Alternative 3 scenario can be accomplished without having an adverse effect on the environment and such impacts would be less than significant.

3.13.3.3.2. Alternative 3 Mitigation Measures

No mitigation measures are required. The General Plan Parks and Recreation Element and the Open Space and Conservation Elements include policies and programs that will serve to effectively avoid, minimize and otherwise mitigate potentially significant impacts to community parks and recreation facilities and lands that could result from implementation of Alternative 3. Section 2.13.7 also includes avoidance, minimization and other measures that further ensure that the community's future demand for parks and recreation lands under Alternative 3 can be met and in an environmentally responsible manner.

3.13.3.3.3. Alternative 3 Significance After Mitigation

Residual environmental effects associated with the implementation of the Alternative 3 project would essentially be the same as those for the Proposed Project. Through the implementation of applicable General Plan policies and programs, and the measures set forth in Section 2.3.7 of this EIR, potential impacts can be avoided, minimized and/or reduced to levels that are less than significant.

3.13.3.3.4. Alternative 3 Cumulative Impacts

Cumulative effects associated with parks and recreation resources are gauged by the degree to which a project may trigger the construction or expansion of recreational facilities and would cause physical deterioration to the existing parks and recreation facilities. Future development associated with the Alternative 3 project would generate slightly less population and demand for parks and related open space and facilities when compared to the Proposed Project. As noted, sufficient lands have already been acquired to accommodate close to half of the future demand generated by Alternative 3, and additional lands will be available to meet all of the City's obligations. The significant areas of public lands and associated opportunities for recreation also ensure that the impacts associated with Alternative 3 will not be cumulatively considerable.

3.13.4. Environmental Superior Alternative

At buildout, Alternative 2 would result in the fewest dwelling units and smallest population within the same area as the other alternatives. As a result, it would be expected to require the least amount of infrastructure and parks and recreational facilities and services expansion. In this regard, Alternative 2 is environmentally superior to the other project alternatives. However, by assigning low-density residential designations on some parcels of land that could be designated for more intensive uses, it does not fully capture the development potential of those parcels and could limit the amount of land available for parks and other recreation lands.

3.14 Population, Housing, and Socio-Economic Resources

3.14.1 Introduction

This section of the EIR analyzes the potential impacts associated with the project alternatives based on regional and local population, housing, and socio-economic conditions. It also addresses impacts associated with environmental justice in a broad context the considers whether the physical changes associated with each alternative would result in indirect adverse social or economic impacts. As with the other alternatives analysed, all are limited to changes to their respective land use maps and allocation models.

3.14.2 Existing Conditions

Population
Cathedral City is within the Coachella Valley region of central Riverside County. Riverside County has experienced rapid growth over recent decades; its 2018 population was estimated at 2.44 million.[1] The Coachella Valley includes nine incorporated cities and unincorporated land with a combined population of approximately 413,000.[2]

Cathedral City is the second most populous city in the Coachella Valley. Its 2018 population estimate was 54,466.[3] The median age is 37.3 years. The City's population ethnicity is predominantly (76.9%) "white," with approximately 59.4% identifying themselves as Hispanic or Latino of any race.[4]

Housing
The Coachella Valley has a strong second home and vacation rental market. Regional housing products include a mix of single- and multi-family homes, and a smaller number of mobile homes. Cathedral City includes approximately 21,219 housing units, the majority (55.8%) of which are single-family detached units, and an average of 3.16 persons per household.[5]

Employment and Income
The Coachella Valley has a strong tourism and hospitality economy anchored by world-class hotels and spas, professional golf course and tennis tournaments, outdoor recreational opportunities, and music and film festivals. The eastern valley is characterized by agricultural operations that have made the Coachella Valley a top national producer of a variety of crops. The economy is also supported by a strong healthcare industry that includes several regional hospitals and treatment centers.

The two largest employment sectors in Cathedral City are "arts/entertainment, recreation, accommodation, and food service industries," which employs approximately 20% of the civilian labor force, and "educational services, health care, and social assistance," which also employs approximately 20%.[6]

1 Population Estimates for Cities, Counties, and the State (Report E-1), January 1, 2018 and 2019, California Department of Finance.
2 Population Estimates for Cities, Counties, and the State (Report E-1), January 1, 2018 and 2019, California Department of Finance; and 2013-2017 American Community Survey 5-Year Estimates.
3 City/County Population and Housing Estimates (Report E-5), January 1, 2018, California Department of Finance.
4 2013-2017 American Community Survey 5-Year Estimates.
5 City/County Population and Housing Estimates (Report E-5), January 1, 2018, California Department of Finance.
6 2013-2017 American Community Survey 5-Year Estimates.

Disadvantaged Communities
As defined by the California Environmental Protection Agency, "disadvantaged communities" include, but are not limited to, 1) areas disproportionately affected by environmental pollution and other hazards that can lead to negative health effects, exposure, or environmental degradation, 2) areas with concentrations of people that are of low income, high unemployment, low levels of home ownership, high rent burden, sensitive populations, or low levels of educational attainment. They also include "low-income areas" in which household incomes are at or below 80 percent of the statewide median income or household incomes are at or below the threshold designated as low income by the Department of Housing and Community Development.

Most of the Coachella Valley has no disadvantaged communities. However, several are designated in the eastern Coachella Valley communities of Indio, Coachella, and Mecca.[7] There are none in Cathedral City.

3.14.3 Alternatives Impact Analysis

3.14.3.1 Alternative 1

3.14.3.1.1 Alternative 1 Impacts

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

Like the Proposed Project, implementation of Alternative 1 would facilitate new development in the City, as well as the extension of roads and other infrastructure, that would directly and indirectly result in substantial, *planned* population growth through 2040.

Impacts to Housing
As shown in the following table, buildout of Alternative 1 is projected to result in 36,580 new dwelling units. When combined with 21,219 existing units, there would be approximately 57,799 total units at buildout. This is 3,184 (6%) more dwelling units than projected at buildout of the proposed General Plan.

At buildout of Alternative 1, the two land use categories having the most dwelling units would be Mixed Use-Urban (18,195 units or 31.5%) and Low Density Residential (14,354 units or 24.8%). These land use categories and percentages are largely the same as the Proposed Project.

Table 3.14-1
Alternative 1 Projected Housing Units at Buildout

Land Use Category	Existing Units	Potential New Units	Buildout Units
Hillside Reserve (1du/20ac)	-	23	23
Estate Residential (0-2du/ac)	1	632	633
Low Density Residential (2-4.5du/ac)	11,841	2,513	14,354
Resort Residential (3-6.5du/ac)	5,153	3,450	8,603
Medium Density Residential (4.5-10du/ac)	4,224	2,807	7,031
Medium-High Density Resid. (11-20du/ac)	-	903	903
High Density Residential (20-24du/ac)	-	863	863
Mixed Use – Neighborhood (25 du/ac)	-	7,195	7,195
Mixed Use – Urban (45 du/ac)		18,195	18,195
Total:	21,219	36,580	57,799

[7] CalEnviroscreen 3.0 database, June 2018 Update.

As with the Proposed Project, much of the new growth would occur north of I-10. Land use designations north of I-10 are the same under both the Proposed Project and Alternative 1, consistent with the approved land use plans of the North City Specific Plan and North City Extended Specific Plan. Future development in this part of the City would be subject to the development standards and provisions in the Specific Plans.

Impacts to Population

There are currently 54,466 residents in Cathedral City. Assuming 36,580 new units and 3.16 persons per household[8], buildout of Alternative 1 is projected to result in an additional 115,593 residents, which assume 100 percent occupancy of all new dwelling units. At buildout, the total City population would be approximately 170,059 residents. This is 10,061 (6%) more residents than projected at maximum buildout of the proposed General Plan. This level of growth can be considered substantial; however, as explained in Section 2.14.6.a, given recent regional growth rates, it is unlikely that it would all occur by 2040.

Alternative 1 would be a long-range plan for future growth. Like the Proposed Project, growth would be *planned* and occur over many years; therefore, impacts would be less than significant, the same level of impact as the Proposed Project.

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

As with the Proposed Project, Alternative 1 would not displace any existing people or housing, and no replacement housing would be needed. And, consistent with the Proposed Project, no impact would occur.

Environmental Justice

As explained above and in Section 2.14.5, there are no disadvantaged communities in Cathedral City. Therefore, like the Proposed Project, Alternative 1 would have no impact on disadvantaged communities.

Alternative 1 would result in implementation of the same policies and programs as the Proposed Project, which are expected to have positive impacts on issues associated with environmental justice. Like the Proposed Project, the Alternative 1 land use plan locates industrial land uses away from residential land uses, to the greatest extent practical. It would result in a complete streets network and enhanced multi-modal transportation links that benefit all segments of the population. It would include the Environmental Justice Element and the Healthy and Sustainable Community Element and their policies and programs that directly address potential social inequities. Alternative 1 impacts on environmental justice would be expected to be positive in the overall, the same as the proposed General Plan.

3.14.3.1.2 Alternative 1 Mitigation Measures

As with the Proposed Project, implementation of Alternative 1 would not require mitigation.

3.14.3.1.3 Alternative 1 Significance After Mitigation

As with the Proposed Project, the impacts of Alternative 1 would be less than significant.

3.14.3.1.4 Alternative 1 Cumulative Impacts

A consideration of cumulative effects associated with population, housing, and socio-economic conditions includes buildout of the Alternative 1 land use plan. Similar to the Proposed Project, it is very unlikely that buildout will actually occur within the Plan's 20-year horizon. Historically strong rates of development have been approximately

[8] City/County Population and Housing Estimates (Report E-5), January 1, 2018, California Department of Finance.

one-third those required to see City buildout by 2040. Therefore, implementation of Alternative 1 would not result in either cumulatively considerable unplanned housing or population growth or displace existing housing in Cathedral City over the coming 20-year time frame.

3.14.3.2 Alternative 2

3.14.3.2.1 Alternative 2 Impacts

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

Like the Proposed Project, Alternative 2 would facilitate new development in the City, as well as extension of roads and other infrastructure, that would directly and indirectly result in substantial, *planned* population growth through 2040.

Impacts to Housing

As shown in the following table, buildout of Alternative 2 is projected to result in 26,087 new dwelling units. When combined with 21,219 existing units, there would be approximately 47,306 total units at buildout. This is 7,309 (13%) fewer dwelling units than projected at buildout of the proposed General Plan.

At buildout of Alternative 2, the two land use categories having the most dwelling units would be Mixed Use-Urban (14,151 units or 30.0%) and Low Density Residential (15,799 units or 33.4%). Under Alternative 2, the greatest percentage of units would be low-density. Under the Proposed Project, the greatest percentage of units would be Mixed Use-Urban.

Table 3.14-2
Alternative 2 Projected Housing Units at Buildout

Land Use Category	Existing Units	Potential New Units	Buildout Units
Hillside Reserve (1du/20ac)	-	23	23
Estate Residential (0-2du/ac)	1	632	633
Low Density Residential (2-4.5du/ac)	11,841	3,958	15,799
Resort Residential (3-6.5du/ac)	5,153	3,467	8,620
Medium Density Residential (4.5-10du/ac)	4,224	955	5,179
Medium-High Density Resid. (11-20du/ac)	-	170	170
High Density Residential (20-24du/ac)	-	684	684
Mixed Use – Neighborhood (25 du/ac)	-	2,048	2,048
Mixed Use – Urban (45 du/ac)		14,151	14,151
Total:	21,219	26,087	47,306

Like the Proposed Project, much of the new growth would occur north of I-10. Land use designations north of I-10 are the same under both the Proposed Project and Alternative 2, consistent with the approved land use plans of the North City Specific Plan and North City Extended Specific Plan. Future development in this part of the City would be subject to the development standards and provisions in the Specific Plans.

Impacts to Population

There are currently 54,466 residents in Cathedral City. Assuming 26,087 new units and 3.16 persons per household[9], buildout of Alternative 2 is projected to result in an additional 82,435 residents. At buildout, the total City population would be approximately 136,901 residents. This is 23,097 (14%) fewer residents than projected at buildout of the proposed General Plan. This level of growth can be considered substantial; however, as explained in Section 2.14.6.a, given recent regional growth rates, it is unlikely that it would all occur by 2040.

[9] City/County Population and Housing Estimates (Report E-5), January 1, 2018, California Department of Finance.

Alternative 2 would be a long-range plan for future growth. Like the Proposed Project, growth would be *planned* and occur over many years; therefore, impacts would be less than significant, the same level of impact as the Proposed Project.

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

Like the Proposed Project, Alternative 2 would not displace substantial numbers of existing people or housing or require the construction of replacement housing elsewhere. Like the Proposed Project, no impact would occur.

Environmental Justice
As stated previously, Cathedral City contains no disadvantaged communities, as defined by the California Environmental Protection Agency. Therefore, as with the Proposed Project, Alternative 2 would have no impact on disadvantage communities.

As with the proposed General Plan, Alternative 2 would be expected to have a positive impact on issues associated with environmental justice. Its land use plan locates industrial land uses away from residential uses to the greatest extent practical. It would include an Environmental Justice Element and Healthy and Sustainable Community Element that address issues of social equity and would include policies and programs directed at implementing a complete streets network that expands transportation opportunities for all segments of the population.

3.14.3.2.2 Alternative 2 Mitigation Measures

As with the Proposed Project, no mitigation measures would be necessary.

3.14.3.2.3 Alternative 2 Significance After Mitigation

As with the Proposed Project, the impacts of Alternative 2 would be less than significant.

3.14.3.2.4 Alternative 2 Cumulative Impacts

The cumulative impacts of Alternative 2 are similar to the Proposed Project, in that it is very unlikely that buildout will actually occur within the Plan's 20-year horizon. Historically strong rates of development have been approximately one-third those required to see City buildout by 2040. Therefore, implementation of Alternative 2 would not result in either cumulatively considerable unplanned housing or population growth or displace existing housing in Cathedral City over the coming 20-year time frame.

3.14.3.3 Alternative 3 (No Project)

3.14.3.3.1 Alternative 3 Impacts

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

As with the Proposed Project, the No Project Alternative 3 would facilitate new development in the City, as well as extension of roads and other infrastructure, that would directly and indirectly result in substantial, *planned* population growth through 2040.

Impacts to Housing

As shown in the following table, buildout of the No Project Alternative 3 is projected to result in 32,834 new dwelling units. When combined with 21,219 existing units, there would be approximately 54,053 total units at buildout. This is 562 (1%) fewer dwelling units than projected at buildout of the proposed General Plan.

At buildout of the No Project Alternative 3, the two land use categories having the most dwelling units would be Mixed Use-Urban (18,194 units or 33.7%) and Low Density Residential (15,140 units or 28.0%). These land use categories and percentages are very close to those of the Proposed Project.

Table 3.14-3 No Project Alternative
Projected Housing Units at Buildout

Land Use Category	Existing Units	Potential New Units	Buildout Units
Hillside Reserve (1du/20ac)	-	23	23
Estate Residential (0-2du/ac)	1	632	633
Low Density Residential (2-4.5du/ac)	11,841	3,299	15,140
Resort Residential (3-6.5du/ac)	5,153	4,604	9,757
Medium Density Residential (4.5-10du/ac)	4,224	751	4,975
Medium-High Density Resid. (11-20du/ac)	-	212	212
High Density Residential (20-24du/ac)	-	696	696
Mixed Use – Neighborhood (25 du/ac)	-	4,423	4,423
Mixed Use – Urban (45 du/ac)		18,194	18,194
Total:	21,219	32,834	54,053

As with the Proposed Project, much of the new growth would occur north of I-10. Land use designations north of I-10 are the same under both the Proposed Project and the No Project Alternative, consistent with the approved land use plans of the North City Specific Plan and North City Extended Specific Plan. Future development in this part of the City would be subject to the development standards and provisions on the Specific Plans.

Impacts to Population

There are currently 54,466 residents in Cathedral City. Assuming 32,834 new units and 3.16 persons per household[10], buildout of the No Project Alternative is projected to result in an additional 103,756 residents. At buildout, the total City population would be approximately 158,222 residents. This is 1,776 (1%) fewer residents than projected at buildout of the proposed General Plan. This level of growth can be considered substantial; however, as explained in Section 2.14.6.a, given recent regional growth rates, it is unlikely that it would all occur by 2040.

The No Project Alternative 3 represents the continued implementation of the current General Plan, an adopted long-range plan for future growth. Like the Proposed Project, buildout growth would be *planned* and occur over many years; therefore, impacts would be less than significant, the same level of impact as the Proposed Project.

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

The No Project Alternative 3 would not result in the displacement of people or housing, necessitating the construction of replacement housing elsewhere. Like the Proposed Project, no impact would occur.

[10] City/County Population and Housing Estimates (Report E-5), January 1, 2018, California Department of Finance.

Environmental Justice
As stated previously, Cathedral City contains no disadvantaged communities, as defined by the California Environmental Protection Agency. Therefore, like the Proposed Project, the No Project Alternative would have no impact on disadvantaged communities.

The current General Plan was drafted and adopted before Senate Bill 1000 was enacted, requiring California cities to include an Environmental Justice Element in their General Plans and to identify "disadvantaged communities" and strategies to mitigate and reduce environment-related health risks to them. Therefore, it does not directly address the issue. The current General Plan Housing Element describes affordable housing programs, needs, and constraints and includes policies and programs to address them, and the Circulation Element includes policies to provide multi-modal access to all parts of the community. However, these efforts are limited compared to those of the Proposed Project, which evaluates community health indicators and addresses a broad range of social inequities, such as food insecurity, climate change, and community resilience. Whereas the Proposed Project would have a net positive impact on environmental justice issues, the No Project Alternative would be expected to have a neutral or even negative impact on them.

3.14.3.3.2 Alternative 3 Mitigation Measures

As with the Proposed Project, no mitigation measures would be necessary.

3.14.3.3.3 Alternative 3 Significance After Mitigation

As with the Proposed Project, the impacts of Alternative 3 would be less than significant.

3.14.3.3.4 Alternative 3 Cumulative Impacts

The cumulative impacts of Alternative 3 are similar to the Proposed Project, in that it is very unlikely that buildout will actually occur within the Plan's 20-year horizon. Historically strong rates of development have been approximately one-third those required to see City buildout by 2040. Therefore, implementation of Alternative 3 would not result in either cumulatively considerable housing or population growth in Cathedral City over the coming 20-year time frame.

3.14.4 Environmental Superior Alternative

Population

At buildout, Alternative 2 would result in the fewest dwelling units and smallest population within the same area as the other alternatives. As a result, it would be expected to require the least amount of infrastructure and public services expansion, such as the extension of roads and utilities or enrollments at local schools. In this regard, Alternative 2 is environmentally superior to the other project alternatives. However, by assigning low-density residential designations on some parcels of land that could be designated for more intensive uses, it does not fully capture the development potential of those parcels.

Environmental Justice

All project alternatives would include targeted policies and programs that specifically address environmental justice, in compliance with Senate Bill 1000. In this regard, there is no superior alternative. On the basis of land use allocation models and the numbers and densities of housing that would be facilitated by each alternative, Alternative 1 would be somewhat superior to the other project alternatives in that it could create more opportunities for affordable market rate housing that could better benefit those of lower incomes.

3.15. Public Utilities and Service Systems

3.15.1. Introduction

This section of the EIR evaluates the potential for the project alternatives to directly affect public and utility services due to the to the proposed Cathedral City General Plan update. Public services include fire protection, police protection, school services, and library services. Utility systems include water, wastewater, and solid waste facilities, as well as electricity, natural gas, and telecommunications services within the General Plan area and the surrounding region. The analysis considers whether implementation of the project alternatives would affect the ability of service providers to maintain acceptable service or other performance objectives, resulting in the need for new or expanded facilities, staffing or other capabilities.

3.15.2. Existing Conditions

Fire Protection Services
The Cathedral City Fire Department provides fire protection services to the General Plan planning area. Its staff currently includes 43 sworn fire personnel (42 firefighters and 1 Fire Chief), including 14 firefighters on-duty 24/7/365, 2 administrative personnel, and 1 full-time fire inspector. Current firefighter staffing levels represent a ratio of about 0.77 firefighters to every 1,000 residents. (See Section 2.15.5 for details).

Law Enforcement Services
The Cathedral City Police Department provides police protection to the planning area. The Cathedral City Police Station is located at 68-700 Avenida Lalo Guerrero. The Police Department's Strategic Plan 2016-2020 recommends a minimum officer-to-resident population ratio of no less than one officer per thousand residents.[1] With 52 sworn officers, the City currently provides approximately 0.90 officers for every 1,000 residents. According to the Strategic Plan, the public considers an emergency police response time within 6 minutes or less to be acceptable. The City's Police Department currently has an emergency (Priority 1) response time or 7 minutes or less. Emergency and non-emergency calls for Police and Fire are received by the city's Emergency Communications Center. The Cathedral City Dispatch Center is staffed 24 hours a day,7 days a week, to answer emergency and non-emergency phone calls. (See Section 2.15.5 for details).

Education
The Palm Springs Unified School District (PSUSD) provides kindergarten through 12th grade public educational services and facilities to the City of Cathedral City. In 2019, PSUSD schools enrolled approximately 21,680 students in 28 schools and an independent study program. PSUSD operates nine schools within Cathedral City, including five elementary, two middle, one high, and one continuation high school. (See Section 2.15.5 for details).

Parks and Recreational Services
Parks and recreation services within the City of Cathedral City are owned and managed by the City. Discussion of City parks is provided in Sections 2.13 and 3.13, Parks and Recreational Facilities, of this DEIR.

Domestic Water
Domestic water for the City of Cathedral City is provided by two water agencies: Coachella Valley Water District (CVWD) and Desert Water Agency (DWA). These service providers provide production wells, storage and a range of water distribution lines throughout the City and provide a high level of service to meet domestic demand and fire flows (See Section 2.15.5 for details).

[1] Cathedral City Police Department Strategic Plan 2016-2020.

Wastewater Collection and Treatment
CVWD and DWA provide wastewater collection services to the planning area. Wastewater treatment is provided by CWD, which collects flows from its system and that of DWA and conveys wastewater to its water reclamation plant located on Cook Street in Palm Desert (See Section 2.15.5 for details).

Electricity
Southern California Edison (SCE) provides electrical service to the City of Cathedral City and many areas of the Coachella Valley, serving approximately fifteen (15) million people within a service area of approximately 50,000 square miles. Within the City, SCE maintains substations and a full range of transmission and distribution lines, including high voltage lines in the northern portion of the City (See Section 2.15.5 for details).

Natural Gas
Southern California Gas (SoCalGas; The Gas Company) provides natural gas services and facilities to Cathedral City. Within Cathedral City, major high-pressure gas lines are located within the rights-of-way of Date Palm Drive, Vista Chino, Varner Road and Mountain View Road, and along East Palm Canyon Drive. Medium-pressure distribution lines typically consist of plastic pipes (older pipes may be constructed of steel) with pressures less than 60 psi. Most residences are fed through pipes rated at 25 to 40 psi. The Cove and most other residential neighborhoods in the planning area are connected to medium-pressure distribution lines. (See Section 2.15.5 for details).

Telecommunications
Cable television and internet services are provided to the City by Spectrum and Frontier. The City also has access to Channel 17, a public service channel, which it uses to broadcast City Council meetings. (See Section 2.15.5 for details).

Solid Waste Management
Burrtec Waste Industries provides solid waste collection and disposal services to Cathedral City through a franchise agreement. The City's recycling program has proven beneficial in the preservation of landfill space for non-recyclable materials. Green waste is recycled at BioMass in Thermal. Other recyclables, including glass, plastic and newspaper are transported by a third-party hauler to a recycling company in Los Angeles. (See Section 2.15.5 for details).

3.15.3. Alternatives Impact Analysis

3.15.3.1. Alternative 1

3.15.3.1.1. Alternative 1 Impacts

Public Services

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

   i) Fire protection?
   ii) Police protection?
   iii) Schools?
   iv) Parks?
   v) Other public facilities?

Utilities and Service Systems

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. (see Section 2.10 addressing stormwater)

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

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

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

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

Fire Protection, Police, School, Parks and other Public Facilities

Compared to the Proposed Project, new development under the Alternative 1 would increase demand for fire protection services, police services, school services, and library services. To maintain or achieve acceptable service standards, new or physically altered fire, police, school, parks and other public facilities would be required. When compared to the Proposed Project, Alternative 1 would accommodate the most residential units and population growth of all the alternatives and, therefore, would result in an increased need for fire and police staffing and facilities, more or enlarged schools, additional parks and other public facilities to be constructed or expanded. Therefore, impacts would be increased as compared to the Proposed Project. However, impacts would still be considered significant and the mitigation identified in Section 2.15.7 would be required. After mitigation, impacts related to school facilities would be less than significant.

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. (see Section 2.10 addressing stormwater)

Domestic Water and Wastewater Treatment

Implementation of Alternative 1 would allow new development which would require an expanded domestic water system, and additional connections to the wastewater collection and treatment system. Similar to the Proposed Project, all future development projects facilitated by Alternative 1 would be required to comply with all applicable federal, state, and local regulations related to domestic water and waste water disposal, including CVWD and DWA standards. Compliance with such regulations, policies and programs set forth in the Public Services and Utilities Sub-Element, and Section 2.15.7 of this EIR would ensure that impacts related to domestic water and wastewater disposal are less than significant. Therefore, the Alternative 1 would result in a similar impact to wastewater disposal systems as compared to the Proposed Project.

Electricity

New development under the Alternative 1 scenario would increase the demand for electricity beyond that associated with the Proposed Project. To maintain or achieve acceptable service standards, new or physically altered electric power stations, whether from conventional or renewable sources, would be required, and additional distribution and

transmission lines and substations could also be needed. Compared to the Proposed Project, Alternative 1 would accommodate more residential units and population growth, and more industrial space; therefore, it would result in an increased need for sources of electricity and related facilities. Therefore, impacts would be increased compared to the Proposed Project and the other project alternatives. However, implementation of policies and programs set forth in the Public Services and Utilities Sub-Element and Section 2.15.7 of this EIR would ensure impacts related to electricity and related facilities would be less than significant.

Natural Gas
New development under the Alternative 1 scenario would increase the future demand for natural gas and related services in the planning area, compared to the other project alternatives and the Proposed Project. New or physically altered natural gas pumping/compressing stations would be required to maintain or achieve acceptable supplies and meet service requirement for new development. When compared to the Proposed Project, Alternative 1 would accommodate more residential units and population growth, and more industrial space. Therefore, Alternative 1 would result in an increased potential demand for natural gas and related facilities. Therefore, impacts would be somewhat greater under Alternative 1 compared to the Proposed Project. However, implementation of policies and programs set forth in the Public Services and Utilities Sub-Element and Section 2.15.7 of this EIR would ensure impacts related to natural gas and related services and facilities would be less than significant.

Telecommunications
New or physically altered cable television and internet services would be required for the new developments in the City under Alternative 1. When compared to the Proposed Project, Alternative 1 would accommodate more residential units and population growth and, therefore, would result in an increased need for cable television, internet services and related facilities to be constructed or expanded. Therefore, impacts would be increased as compared to the Proposed Project. However, implementation of policies and programs set forth in the Public Services and Utilities Sub-Element and Section 2.15.7 of this EIR would ensure impacts related to telecommunications services and related facilities would be less than significant.

Solid Waste Management
Compared to the Proposed Project, Alternative 1 would accommodate more residential units and population growth, and would also accommodate more industrial development. Therefore, this alternative would generate an increased need for solid waste collection and disposal services, and could accelerate the need for additional landfill space. Therefore, impacts would be somewhat greater compared to the Proposed Project. However, implementation of policies and programs set forth in the Public Services and Utilities Sub-Element and Section 2.15.7 of this EIR would ensure impacts related to the solid waste collection and disposal services, as well as the possible increased demand for landfill space, would be less than significant.

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

As discussed above, CVWD and DWA provide domestic water to Cathedral City. Future development facilitated by the Alternative 1 scenario would increase City population and commercial and industrial space, as well as park lands, in the planning area. At Alternative 1 buildout, a total of approximately 57,799 residential units could be developed within the planning area. Commercial uses could increase to 13,639,337 square feet, and industrial uses could increase to approximately 17,052,102 square feet. Implementation of Alternative 1 would result in a total citywide population of 170,059 persons at buildout. This increase in growth and development would result in an increase in domestic water demand beyond that projected for the Proposed Project. Using CVWD's annual water consumption factors, buildout Alternative 1 could result in the demand for approximately 20,843 acre-feet per year (AFY) of domestic water (Table 3.15-2).

Table 3.15-1 Alternative 1
Estimated Water Demand at Buildout

Land Use	CVWD Water Consumption Factor*	Conditions at Alternative 1 Buildout (2040)	Total Water Demand (AFY) at Alternative 1 Buildout (2040)
Single-Family Residential	2.31 acre-feet per acre per year (AFY)	6,628.58 acres	15,312.02
Multi-Family Residential	2.06 acre-feet per acre per year (AFY)	864.93 acres	1,781.76
Commercial	1.92 acre-feet per acre per year (AFY)	1,635.06 acres	3,139.32
Industrial	0.51 acre-feet per acre per year (AFY)	1,195.41 acres	609.66
		TOTAL	20,842.76

* CVWD's annual water consumption factors from Supplemental Water Supply Program and Fee Study Prepared for the City of Coachella in 2016.

The planning area is served by CVWD and DWA. According to CVWD's 2015 Urban Water Management Plan (UWMP), the urban water demands in the CVWD service area are estimated to grow from 114,600 AFY in 2020 to 194,300 AFY in 2040.[2] According to DWA's 2015 UWMP, the urban water demands in the DWA service area are estimated to grow from 42,708 AFY in 2020 to 50,575 AFY in 2040.[3] At Alternative 1 buildout, the water demand in Cathedral City would represent approximately 8.5 percent of the total projected 2040 water demand of 244,875 AF for both CVWD and DWA combined.

According to CVWD's and DWA's 2015 UWMP, available water supplies are sufficient to meet the anticipated demand for 2020 through 2040 during normal, single dry, and multiple dry water years for Alternative 1 and all of the project alternatives, including the Proposed Project. This result is based on the volume of water available in the aquifer, CVWD's Colorado River contract supply, State Water Project (SWP) Table A amounts, water rights and water supply contracts, and CVWD's and DWA's commitments to eliminate overdraft and reduce per capita water use in CVWD's and DWA's service area.

In addition, the Alternative 1scenario includes policies and implementation programs that seek to reduce water demand and protect water resources in the planning area. Policy 6.2 of the Water, Sewer and Utilities Sub-Element requires the City to monitor resource management activities of the CVWD, DWA, and CRWQCB to preserve and protect water resources and quality.

In summary, implementation of Alternative 1 would result in increased demand for domestic water as the population increases and additional development occurs in the planning area. The City will work with water agencies to assure sufficient water resources would be available in the future during normal, single dry and multiple dry years. Implementation of policies and programs set forth in the Public Services and Utilities Sub-Element and Section 2.15.7 of this EIR would ensure impacts related to water supplies, would be less than significant.

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

[2] 2015 Urban Water Management Plan (UWMP) for CVWD, Prepared by MWH in July 2016.
[3] 2015 Urban Water Management Plan (UWMP) for DWA, Prepared by Krieger and Stewart Engineering Consultants in June 2016.

Projected development under Alternative 1 would increase the generation of wastewater compared to the Proposed Project and the other alternatives. All wastewater collected in Cathedral City is treated at CVWD's Cook Street water reclamation plant (WRP-10), which currently treats approximately 15 million gallons of wastewater per day.[4] CVWD continually increases the capacity of its wastewater reclamation facilities by constructing new treatment ponds, aeration plants, and other structures.

Alternative 1 would accommodate a total of up to 57,799 residential units, 13,639,337 square feet of commercial uses, and 17,052,102 square feet of industrial space, in addition to existing development. Depending on location, new connections would receive wastewater treatment through CVWD facilities. Currently, the majority of the planning area is developed, and the main wastewater treatment lines and infrastructure are already in place. Future development under Alternative 1 would be required to connect to existing main wastewater collection system. To ensure adequate collection and treatment system capacity to meet the growing needs of the City, CVWD and DWA have established long-range plans to address future demands that can adequately address the needs of all project alternatives and the Proposed Project.

In addition, policies and programs set forth in the Proposed Project also apply to Alternative 1 and address potential impacts to wastewater treatment facilities in the City. Policy 6.1 of the Water, Sewer and Utilities Sub-Element encourages CVWD and DWA to implement short- and long-term plans for an integrated, city-wide sewer system. Program 6.1.1 requires the City and service agencies to evaluate a wide range of methods to finance the expansion of the sewer system. Policies 6.2 and 6.3 of the Water, Sewer and Utilities Sub-Element require the City to monitor resource management activities of the CVWD, DWA, and CRWQCB to preserve and protect water resources and quality.

Overall, new wastewater treatment facilities or expansion of existing wastewater treatment facilities could be required as the population and corresponding demand for services increases. However, each wastewater treatment facility would be evaluated on a project-by-project basis to assure that environmental impacts are minimized or mitigated, as needed. Implementation of policies and programs set forth in the Public Services and Utilities Sub-Element and measures set forth in Section 2.15.7 of this EIR would ensure impacts related to water supplies, would be less than significant. Therefore, buildout of Alternative 1 would result in less than significant impacts related to wastewater treatment facilities; no mitigation is required.

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

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

The City contracts with Burrtec for solid waste collection and disposal services. Future residential development facilitated by the Alternative 1 scenario would increase the population in the planning area and also increase the demand for services from additional industrial development. At Alternative 1 buildout, approximately 57,799 residential units could be built within the planning area. Commercial uses could total 13,639,337 square feet, and industrial uses could total 17,781,959 square feet. Implementation of the Alternative 1 scenario would result in a population increase of approximately 115,593 new residents, resulting in a total citywide population of 170,059 persons at buildout of Alternative 1. This increase in growth and development would result in an increase in solid waste generation, and increased demand for solid waste services throughout the City. Using solid waste generation factor provided by CalRecycle, buildout of Alternative 1 could result in the generation of approximately 85,428 tons per year of solid waste, assuming a 50% diversion rate (Table 3.15-2).

[4] CVWD's 2015 Urban Water Management Plan (Page 6-22).

Table 3.15-2 Alternative 1
Estimated Solid Waste Disposal at Alternative 1 Buildout

Land Use	CIWMB Disposal Rates	Conditions at Alternative 1 Buildout (2040)	Solid Waste Disposal (pounds per day)	Solid Waste Disposal (tons per year)
Residential	5.2 pounds/resident/day*	170,059 persons	884,307	161,386
Commercial	5 pounds/1000 square feet /day**	13,639,337 square feet	68,197	12,446
Industrial	5 pounds/1000 square feet /day**	17,052,102 square feet	85,261	15,560
		TOTAL	1,037,765	189,392
		TOTAL (with 50% diversion)	518,883	94,696

* California's 2017 Per Capita Disposal Rate, using SB 1016's measurement system, by CalRecycle.
**Estimated Solid Waste Generation Rates by CalRecycle.

As shown in Table 3.15-2, buildout of the Alternative 1 scenario would result in solid waste disposal of approximately 1,037,765 pounds per day, or 189,392 tons per year. State law (AB 939) requires a 50 percent diversion of solid waste from landfills; after diversion, solid waste disposal with Alternative 1 buildout is projected to be 518,883pounds per day, or 94,696 tons per year. As discussed above, the three landfills serving the region have a combined remaining capacity of 178.8 million cubic yards. Waste generated by the development under Alternative 1 would not exceed the capacity of these landfills.

Cathedral City, Burrtec Waste Industries, and landfills serving Cathedral City are required to comply with applicable solid waste management and reduction statutes and regulations. Alternative 1 would have no significant impact on their compliance with these requirements.

Overall, with continuing adherence to the requirements of AB 939 and implementation of policies and programs set forth in the Public Services and Utilities Sub-Element and measures set forth in Section 2.15.7 of this EIR, impacts related to solid waste management would be less than significant.

3.15.3.1.2. Alternative 1 Mitigation Measures

As discussed above, existing service providers and utilities have established near and long-term plans to meet the demands of future development in the City and the region. With the implementation of the policies and programs set forth in the Public Services and Utilities Sub-Element of the General Plan, and the avoidance, minimization and other measures set forth in Section 2.15.7 of this EIR, implementation of the Alternative 1 scenario would result in less than significant impacts.

3.15.3.1.3. Alternative 1 Significance After Mitigation

Residual environmental effects associated with the implementation of the Alternative 1 project would be comparable to those for the Proposed Project. Through the application of the applicable General Plan policies and programs, and the mitigation measures set forth in Section 2.15.7 of this EIR, potential impacts can be avoided, minimized and/or reduced to levels that are less than significant.

3.15.3.1.4. Alternative 1 Cumulative Impacts

Public Services
Future development associated with the Alternative 1 project would require the expansion of public services and facilities. However, implementation of Alternative 1 would gradually increase population in the planning area, which would increase the demand for public services, thus requiring additional staffing, equipment, and facilities. Such growth would be consistent with anticipated long-term, regional growth in the Coachella Valley and would

contribute incrementally to a broader increase in demand for these services. While some services are solely managed by the City, others are provided by other agencies (Riverside County Library District and Palm Springs Unified School District) that also serve surrounding communities and must balance resources to serve a broader area that extends beyond the city boundaries. Proposed General Plan policies and programs that are applicable to Alternative 1 require the City to monitor growth and expand services as needed, and to work collaboratively with various agencies to assure adequate services are provided. Proposed programs and policies ensure impacts will be less than significant and the project's impacts will be less than cumulatively considerable.

Utilities and Service Systems
Development facilitated by Alternative 1, in combination with all other development within the service boundaries of utility providers, would result in increased demand for electricity, natural gas, water, wastewater, and solid waste resources and services. As private companies, SCE and SoCalGas continuously plan for growth and expand their infrastructure according to demand. Quasi-public agencies, such as CVWD and DWA, work with regional communities, including Cathedral City, to plan for growth. Alterative 1 would implement policies and programs that require the City to coordinate with local service providers to plan for future growth, require developers to contribute to the installation and operation of expanded infrastructure, and implement measures to reduce consumption of resources. Alternative 1 would minimize potential impacts such that they would not be cumulatively considerable.

3.15.3.2. Alternative 2

Public Services

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

i) Fire protection?
ii) Police protection?
iii) Schools?
iv) Parks?
v) Other public facilities?

Utilities and Service Systems

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. (see Section 2.10 addressing stormwater)

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

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

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

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

Fire Protection, Police, School, Parks and other Public Facilities
Alternative 2 would decrease demand for fire protection services, police services, school services, and library services when compared to the Proposed Project, but would result in an increased demand for service compared to current conditions. To maintain or achieve acceptable service standards, new or physically altered fire, police, school, parks and other public facilities would be required. When compared to the proposed project, Alternative 2 would accommodate fewer residential units and lower population growth and less commercial square footage, and fewer new jobs. This would require a lower demand for fire and police staffing and facilities, fewer new or expanded schools, and less land for parks and other public facilities. Therefore, impacts would be lower as compared to the Proposed Project. However, because of growth over current conditions, impacts would still be considered significant and the mitigation identified in Section 2.15.7 would be required. After mitigation, impacts related to school facilities would be less than significant.

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. (see Section 2.10 addressing stormwater)

Domestic Water and Wastewater Treatment
Implementation of Alternative 2 would allow new development which would require an expanded domestic water system, and additional connections to the wastewater collection and treatment system, but to a lesser extent. Similar to the Proposed Project, all future development projects facilitated by Alternative 2 would be required to comply with all applicable federal, state, and local regulations related to domestic water and waste water disposal, including CVWD and DWA standards. Compliance with such regulations, policies and programs set forth in the Public Services and Utilities Sub-Element, and Section 2.15.7 of this EIR would ensure that impacts related to domestic water and wastewater disposal are less than significant. Therefore, Alternative 2 would result in a reduced impact to wastewater disposal systems as compared to the Proposed Project or Alternative 1.

Electricity
New development under Alternative 2 would decrease the demand for electricity when compared to that associated with the Proposed Project. To accommodate the growth under this Alternative, however, and to maintain or achieve acceptable service standards, new or physically altered electric power stations, whether from conventional or renewable sources, would be required, and additional distribution and transmission lines and substations could also be needed. Compared to the Proposed Project, Alternative 2 would accommodate fewer residential units and population growth, less commercial square footage, and more industrial space; therefore, it would result in a decreased need for sources of electricity and related facilities when compared to the Proposed Project. Therefore, impacts would be reduced compared to the Proposed Project. However, implementation of policies and programs set forth in the Public Services and Utilities Sub-Element and Section 2.15.7 of this EIR would still be applicable, and impacts related to electricity and related facilities would be less than significant.

Natural Gas
New development under Alternative 2 would decrease the future demand for natural gas and related services in the planning area, compared to the other project alternatives and the Proposed Project. New or physically altered natural gas pumping/compressing stations would be required to maintain or achieve acceptable supplies and meet service requirement for new development. When compared to the Proposed Project, Alternative 2 would accommodate fewer residential units and population growth, less commercial development and more industrial space. Therefore, Alternative 2 would result in a decreased potential demand for natural gas and related facilities. Therefore, impacts would be reduced under Alternative 2 compared to the Proposed Project. However, implementation of policies and programs set forth in the Public Services and Utilities Sub-Element and Section 2.15.7 of this EIR would still be required to ensure impacts related to natural gas and related services and facilities would be less than significant.

Telecommunications
New or physically altered cable television and internet services would be required for the new developments in the City under Alternative 2. When compared to the proposed project, Alternative 2 would accommodate fewer residential units and population growth, and less commercial square footage, and would result in a decreased need for cable television, internet services and related facilities to be constructed or expanded. Therefore, impacts would be decreased as compared to the proposed project. However, implementation of policies and programs set forth in the Public Services and Utilities Sub-Element and Section 2.15.7 of this EIR would still be required, and would ensure that impacts related to telecommunications services and related facilities would be less than significant.

Solid Waste Management
Compared to the Proposed Project, Alternative 2 would accommodate fewer residential units and population growth, less commercial square footage and more industrial development. Therefore, this alternative would generate a decreased need for solid waste collection and disposal services, when compared to the Proposed Project. This Alternative, however, would still result in a need for additional landfill space. Therefore, impacts would be less when compared to the Proposed Project. Implementation of policies and programs set forth in the Public Services and Utilities Sub-Element and Section 2.15.7 of this EIR would still be required to ensure that impacts related to the solid waste collection and disposal services would be less than significant.

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

As discussed above, CVWD and DWA provide domestic water to Cathedral City. Future development under the Alternative 2 scenario would decrease City population and commercial space, and increase industrial space. Additional park lands would still be required in the planning area. At Alternative 2 buildout, a total of approximately 47,306 residential units could be developed within the planning area. Commercial uses could decrease to 13,135,740 square feet, and industrial uses could increase to approximately 17,070,615 square feet. Implementation of Alternative 2 would result in a total citywide population of 136,901 persons at buildout. This decrease in growth and development would result in a decrease in domestic water demand than that projected for the Proposed Project, and all other alternatives. Using CVWD's annual water consumption factors, buildout of Alternative 2 could result in the demand for approximately 20,897 acre-feet per year (AFY) of domestic water (Table 3.15-3).

Table 3.15-3 Alternative 2
Estimated Water Demand at Buildout

Land Use	CVWD Water Consumption Factor*	Conditions at Alternative 2 Buildout (2040)	Total Water Demand (AFY) at Alternative 2 Buildout (2040)
Single-Family Residential	2.31 acre-feet per acre per year (AFY)	6,845.00 acres	15,811.95
Multi-Family Residential	2.06 acre-feet per acre per year (AFY)	697.16 acres	1,436.15
Commercial	1.92 acre-feet per acre per year (AFY)	1,582.51 acres	3,038.42
Industrial	0.51 acre-feet per acre per year (AFY)	1,196.66 acres	610.30
		TOTAL	20,896.82

* CVWD's annual water consumption factors from Supplemental Water Supply Program and Fee Study Prepared for the City of Coachella in 2016.

The planning area is served by CVWD and DWA. According to CVWD's 2015 Urban Water Management Plan (UWMP), the urban water demands in the CVWD service area are estimated to grow from 114,600 AFY in 2020 to 194,300 AFY in 2040.[5] According to DWA's 2015 UWMP, the urban water demands in the DWA service area are estimated to grow from 42,708 AFY in 2020 to 50,575 AFY in 2040.[6] At Alternative 2 buildout, the water demand in Cathedral City would represent approximately 8.5 percent of the total projected 2040 water demand of 244,875 AF for both CVWD and DWA combined. This Alternative would result in the lowest increase in demand for water, because of the overall reduction in development potential, when compared to the Proposed Project and all other alternatives.

According to CVWD's and DWA's 2015 UWMP, available water supplies are sufficient to meet the anticipated demand for 2020 through 2040 during normal, single dry, and multiple dry water years for Alternative 2 and all of the project alternatives, including the Proposed Project. This result is based on the volume of water available in the aquifer, CVWD's Colorado River contract supply, State Water Project (SWP) Table A amounts, water rights and water supply contracts, and CVWD's and DWA's commitments to eliminate overdraft and reduce per capita water use in CVWD's and DWA's service area.

In addition, Alternative 2 would implement the policies and programs that seek to reduce water demand and protect water resources in the planning area. Policy 6.2 of the Water, Sewer and Utilities Sub-Element requires the City to monitor resource management activities of the CVWD, DWA, and CRWQCB to preserve and protect water resources and quality.

In summary, implementation of Alternative 2 would result in a decreased demand for domestic water when compared to the Proposed Project and other alternatives, but would still result in an increase in water demand. The City would work with water agencies to assure sufficient water resources would be available in the future during normal, single dry and multiple dry years. Implementation of policies and programs set forth in the Public Services and Utilities Sub-Element and Section 2.15.7 of this EIR would ensure impacts related to water supplies, would be less than significant.

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

Projected development under Alternative 2 would decrease the generation of wastewater compared to the Proposed Project and all other alternatives. All wastewater collected in Cathedral City is treated at CVWD's Cook Street water reclamation plant (WRP-10), which currently treats approximately 15 million gallons of wastewater per day.[7] CVWD continually increases the capacity of its wastewater reclamation facilities by constructing new treatment ponds, aeration plants, and other structures.

Alternative 2 would accommodate a total of up to 47,306 residential units, 13,135,740 square feet of commercial uses, and 17,070,615 square feet of industrial space, in addition to existing development. Depending on location, new connections would receive wastewater treatment through CVWD facilities. Currently, the majority of the planning area is developed, and the main wastewater treatment lines and infrastructure are already in place. Future development under Alternative 2 would be required to connect to the existing main wastewater collection system, as it would under all alternatives. To ensure adequate collection and treatment system capacity to meet the growing needs of the City, CVWD and DWA have established long-range plans to address future demands that can adequately address the needs of all project alternatives and the Proposed Project.

5 2015 Urban Water Management Plan (UWMP) for CVWD, Prepared by MWH in July 2016.
6 2015 Urban Water Management Plan (UWMP) for DWA, Prepared by Krieger and Stewart Engineering Consultants in June 2016.
7 CVWD's 2015 Urban Water Management Plan (Page 6-22).

In addition, policies and programs set forth for the Proposed Project also apply to Alternative 2 to address potential impacts to wastewater treatment facilities in the City. Policy 6.1 of the Water, Sewer and Utilities Sub-Element encourages CVWD and DWA to implement short- and long-term plans for an integrated, city-wide sewer system. Program 6.1.1 requires the City and service agencies to evaluate a wide range of methods to finance the expansion of the sewer system. Policies 6.2 and 6.3 of the Water, Sewer and Utilities Sub-Element require the City to monitor resource management activities of the CVWD, DWA, and CRWQCB to preserve and protect water resources and quality.

Overall, new wastewater treatment facilities or expansion of existing wastewater treatment facilities could be required as the population and corresponding demand for services increases. In the case of Alternative 2, this expansion would be the least insofar as this Alternative generates the least demand for additional capacity. However, each wastewater treatment facility would be evaluated on a project-by-project basis to assure that environmental impacts are mitigated, as needed. Implementation of policies and programs set forth in the Public Services and Utilities Sub-Element and measures set forth in Section 2.15.7 of this EIR would be applicable to Alternative 2, and would ensure impacts related to water supplies, would be less than significant. Therefore, buildout of the Alternative 2 scenario would result in less than significant impacts related to wastewater treatment facilities.

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

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

The City contracts with Burrtec for solid waste collection and disposal services. Future residential development facilitated by Alternative 2 would decrease the population in the planning area when compared to the Proposed Project, but increase the demand for services from additional industrial development. At Alternative 2 buildout, approximately 47,306 residential units could be built within the planning area. Commercial uses could total 13,135,740 square feet, and industrial uses could total 17,070,615 square feet. Implementation of Alternative 2 would result in a population increase of approximately 82,435 new residents, resulting in a total citywide population of 136,901 persons at buildout. Although less than the Proposed Project, this increase in growth and development would result in an increase in solid waste generation, and increased demand for solid waste services throughout the City. Using solid waste generation factors provided by CalRecycle, buildout of Alternative 2 could result in the generation of approximately 78,741 tons per year of solid waste, assuming a 50% diversion rate (Table 3.15-4).

Table 3.15-4 Alternative 2
Estimated Solid Waste Disposal at Buildout

Land Use	CIWMB Disposal Rates	Conditions at Alternative 2 Buildout (2040)	Solid Waste Disposal (pounds per day)	Solid Waste Disposal (tons per year)
Residential	5.2 pounds/resident/day*	136,901 persons	711,885	129,919
Commercial	5 pounds/1000 square feet /day**	13,135,740 square feet	65,679	11,986
Industrial	5 pounds/1000 square feet /day**	17,070,615 square feet	85,353	15,577
		TOTAL	862,917	157,482
		TOTAL (with 50% diversion)	431,459	78,741

* California's 2017 Per Capita Disposal Rate, using SB 1016's measurement system, by CalRecycle.
**Estimated Solid Waste Generation Rates by CalRecycle.

As shown in Table 3.15-4, buildout of the Alternative 2 scenario would result in solid waste disposal of approximately 862,917 pounds per day, or 157,482 tons per year. State law (AB 939) requires a 50 percent diversion of solid waste from landfills; after diversion, solid waste disposal at Alternative 2 buildout is projected to be 431,459 pounds per day, or 78,741 tons per year. As discussed above, the three landfills serving the region have a combined remaining capacity of 178.8 million cubic yards. Waste generated by the development under Alternative 2 would not exceed the capacity of these landfills.

Cathedral City, Burrtec Waste Industries, and landfills serving Cathedral City are required to comply with applicable solid waste management and reduction statutes and regulations. Alternative 2 would have no significant impact on their compliance with these requirements.

Overall, with continuing adherence to the requirements of AB 939 and implementation of policies and programs set forth in the Public Services and Utilities Sub-Element and measures set forth in Section 2.15.7 of this EIR, impacts related to solid waste management would be less than significant.

3.15.3.2.1. Alternative 2 Mitigation Measures

With the implementation of the mitigation measures set forth in Section 2.15.7 of this EIR and relevant policies and programs set forth in the Public Utilities and Service Systems of the proposed General Plan Update and compliance with the standard conditions, no significant adverse impacts on these services are anticipated.

3.15.3.2.2. Alternative 2 Significance After Mitigation

Residual environmental effects associated with the implementation of Alternative 2 would be lower than those for the Proposed Project. Through the application of the applicable General Plan policies and programs, and the mitigation measures set forth in Section 2.15.7 of this EIR, potential impacts can be avoided, minimized and/or reduced to levels that are less than significant.

3.15.3.2.3. Alternative 2 Cumulative Impacts

Public Services
Future development associated with Alternative 2 would require public services. However, implementation of this Alternative would gradually increase population in the planning area, which would increase the demand for public services, thus requiring additional staffing, equipment, and facilities, but to a lower degree than the Proposed Project or any of the other Alternatives. Such growth would be consistent and slightly less intense than with anticipated long-term, regional growth in the Coachella Valley and would contribute incrementally to a broader increased demand for services. The General Plan includes numerous policies and programs that require the City to monitor growth and expand services as needed, and to work collaboratively with various agencies to assure adequate services are provided. The proposed programs and policies ensure impacts will be less than significant and that Alternative 2's impacts will not be cumulatively considerable.

Utilities and Service Systems
Under Alternative 2, development in combination with all other development within the service boundaries of utility providers, would result in increased demand for electricity, natural gas, water, wastewater, and solid waste resources and services, but to a lesser intensity than the Proposed Project. As private companies, SCE and SoCalGas continuously plan for growth and expand their infrastructure according to demand. Quasi-public agencies, such as CVWD and DWA, work with regional communities, including Cathedral City, to plan for growth. The proposed General Plan includes policies and programs, to which Alternative 2 would be subject, that require the City to coordinate with local service providers to plan for future growth, require developers to contribute to the installation and operation of expanded infrastructure, and implement measures to reduce consumption of resources. Since this Alternative would be subject to General Plan policies and programs, it would also minimize potential impacts such that they would not be cumulatively considerable.

3.15.3.3. Alternative 3

Public Services

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

i) Fire protection?
ii) Police protection?
iii) Schools?
iv) Parks?
v) Other public facilities?

Utilities and Service Systems

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. (see Section 2.10 addressing stormwater)

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

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

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

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

Fire Protection, Police, School, Parks and other Public Facilities

Alternative 3 would decrease demand for fire protection services, police services, school services, and library services when compared to the Proposed Project, but would result in an increased demand for service compared to current conditions. To maintain or achieve acceptable service standards, new or physically altered fire, police, school, parks and other public facilities would be required. When compared to the Proposed Project, Alternative 3 would accommodate fewer residential units and lower population growth and less commercial square footage, and fewer new jobs. This would require a lower demand for fire and police staffing and facilities, fewer new or expanded schools, and less land for parks and other public facilities, but more than Alternative 2. Therefore, impacts would be lower as compared to the Proposed Project or Alternative 1, but somewhat greater than Alternative 2. However, because of growth over current conditions, impacts would still be considered significant and the mitigation identified in Section 2.15.7 would be required. After mitigation, impacts related to school facilities would be less than significant.

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. (see Section 2.10 addressing stormwater)

Domestic Water and Wastewater Treatment
Implementation of Alternative 3 would allow new development which would require an expanded domestic water system, and additional connections to the wastewater collection and treatment system, but to a lesser extent. Similar to the Proposed Project and all other alternatives, all future development projects facilitated by Alternative 3 would be required to comply with all applicable federal, state, and local regulations related to domestic water and waste water disposal, including CVWD and DWA standards. Compliance with such regulations, policies and programs set forth in the Public Services and Utilities Sub-Element, and Section 2.15.7 of this EIR would ensure that impacts related to domestic water and wastewater disposal are less than significant. Therefore, Alternative 3 would result in a similar but somewhat reduced impact to wastewater disposal systems as compared to the Proposed Project or Alternative 1.

Electricity
New development under Alternative 3 would decrease the demand for electricity when compared to that associated with the Proposed Project and Alternative 1. To accommodate the growth under this Alternative, however, and to maintain or achieve acceptable service standards, new or physically altered electric power stations, whether from conventional or renewable sources, would be required, and additional distribution and transmission lines and substations could also be needed. Compared to the Proposed Project, Alternative 3 would accommodate fewer residential units and population growth, less commercial square footage, and more industrial space; therefore, it would result in a decreased need for sources of electricity and related facilities when compared to the Proposed Project and Alternative 1. Therefore, impacts would be reduced compared to the Proposed Project. However, implementation of policies and programs set forth in the Public Services and Utilities Sub-Element and Section 2.15.7 of this EIR would still be applicable, and impacts related to electricity and related facilities would be less than significant.

Natural Gas
New development under Alternative 3 would decrease the future demand for natural gas and related services in the planning area, compared to the other project alternatives and the Proposed Project. New or physically altered natural gas pumping/compressing stations would be required to maintain or achieve acceptable supplies and meet service requirement for new development. When compared to the Proposed Project and Alternative 1, Alternative 3 would accommodate fewer residential units and population growth, less commercial development and more industrial space. Therefore, Alternative 3 would result in a decreased potential demand for natural gas and related facilities. Impacts would be reduced under Alternative 3 compared to the Proposed Project and Alternative 1, and somewhat greater than Alternative 2. However, implementation of policies and programs set forth in the Public Services and Utilities Sub-Element and Section 2.15.7 of this EIR would still be required to ensure impacts related to natural gas and related services and facilities would be less than significant.

Telecommunications
New or physically altered cable television and internet services would be required for the new developments in the City under Alternative 3. When compared to the Proposed Project or Alternative 1, Alternative 3 would accommodate fewer residential units and population growth, and less commercial square footage, and would result in a decreased need for cable television, internet services and related facilities to be constructed or expanded. Therefore, impacts would be decreased as compared to the Proposed Project. However, implementation of policies and programs set forth in the Public Services and Utilities Sub-Element and Section 2.15.7 of this EIR would still be required, and would ensure that impacts related to telecommunications services and related facilities would be less than significant.

Solid Waste Management
Compared to the Proposed Project, Alternative 3 would accommodate fewer residential units and population growth, less commercial square footage and more industrial development. Therefore, this alternative would generate a decreased need for solid waste collection and disposal services, when compared to the Proposed Project and

Alternative 1. This Alternative, however, would still result in a need for additional landfill space. Therefore, impacts would be less when compared to the Proposed Project and Alternative 1, but somewhat greater than Alternative 2. Implementation of policies and programs set forth in the Public Services and Utilities Sub-Element and Section 2.15.7 of this EIR would still be required to ensure that impacts related to the solid waste collection and disposal services would be less than significant.

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

As discussed above, CVWD and DWA provide domestic water to Cathedral City. Future development under Alternative 3 would decrease City population and commercial space, and increase industrial space. Additional park lands would still be required in the planning area. At Alternative 3 buildout, a total of approximately 54,053 residential units could be developed within the planning area. Commercial uses could decrease to 13,651,604 square feet, and industrial uses could increase to approximately 14,426,811 square feet. Implementation of Alternative 3 would result in a total citywide population of 158,222 persons at buildout. This decrease in growth and development would result in a decrease in domestic water demand than that projected for the Proposed Project, and Alternative 1, and somewhat greater demand than Alternative 2. Using CVWD's annual water consumption factors, buildout of Alternative 3 could result in the demand for approximately 21,043 acre-feet per year (AFY) of domestic water (Table 3.15-5).

Table 3.15-5 Alternative 3
Estimated Water Demand at Buildout

Land Use	CVWD Water Consumption Factor*	Conditions at Alternative 3 Buildout (2040)	Total Water Demand (AFY) at Alternative 3 Buildout (2040)
Single-Family Residential	2.31 acre-feet per acre per year (AFY)	6,824.03	15,763.51
Multi-Family Residential	2.06 acre-feet per acre per year (AFY)	785.51	1,618.15
Commercial	1.92 acre-feet per acre per year (AFY)	1,636.32	3,141.73
Industrial	0.51 acre-feet per acre per year (AFY)	1,018.15	519.26
		TOTAL	21,042.65

* CVWD's annual water consumption factors from Supplemental Water Supply Program and Fee Study Prepared for the City of Coachella in 2016.

The planning area is served by CVWD and DWA. According to CVWD's 2015 Urban Water Management Plan (UWMP), the urban water demands in the CVWD service area are estimated to grow from 114,600 AFY in 2020 to 194,300 AFY in 2040.[8] According to DWA's 2015 UWMP, the urban water demands in the DWA service area are estimated to grow from 42,708 AFY in 2020 to 50,575 AFY in 2040.[9] At Alternative 3 buildout, the water demand in Cathedral City would represent approximately 8.6 percent of the total projected 2040 water demand of 244,875 AF for both CVWD and DWA combined. This Alternative would result in a lower increase in demand for water, because of the overall reduction in development potential, when compared to the Proposed Project and Alternative 1.

According to CVWD's and DWA's 2015 UWMP, available water supplies are sufficient to meet the anticipated demand for 2020 through 2040 during normal, single dry, and multiple dry water years for Alternative 3 and all of the project alternatives, including the Proposed Project. This result is based on the volume of water available in the

[8] 2015 Urban Water Management Plan (UWMP) for CVWD, Prepared by MWH in July 2016.
[9] 2015 Urban Water Management Plan (UWMP) for DWA, Prepared by Krieger and Stewart Engineering Consultants in June 2016.

aquifer, CVWD's Colorado River contract supply, State Water Project (SWP) Table A amounts, water rights and water supply contracts, and CVWD's and DWA's commitments to eliminate overdraft and reduce per capita water use in CVWD's and DWA's service area.

In addition, Alternative 3 would implement the policies and programs that seek to reduce water demand and protect water resources in the planning area. Policy 6.2 of the Water, Sewer and Utilities Sub-Element requires the City to monitor resource management activities of the CVWD, DWA, and CRWQCB to preserve and protect water resources and quality.

In summary, implementation of Alternative 3 would result in a decreased demand for domestic water when compared to the Proposed Project and Alternative 1, but would still result in an increase in water demand. The City would work with water agencies to assure sufficient water resources would be available in the future during normal, single dry and multiple dry years. Implementation of policies and programs set forth in the Public Services and Utilities Sub-Element and Section 2.15.7 of this EIR would ensure impacts related to water supplies would be less than significant.

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

Projected development under Alternative 3 would decrease the generation of wastewater compared to the Proposed Project and Alternative 1, but be somewhat greater than Alternative 2. All wastewater collected in Cathedral City is treated at CVWD's Cook Street water reclamation plant (WRP-10), which currently treats approximately 15 million gallons of wastewater per day.[10] CVWD continually increases the capacity of its wastewater reclamation facilities by constructing new treatment ponds, aeration plants, and other structures.

Alternative 3 would accommodate a total of up to 54,053 residential units, 13,651,604 square feet of commercial uses, and 14,426,811 square feet of industrial space, in addition to existing development. Depending on location, new connections would receive wastewater treatment through CVWD facilities. Currently, the majority of the planning area is developed, and the main wastewater treatment lines and infrastructure are already in place. Future development under Alternative 3 would be required to connect to the existing main wastewater collection system, as it would under all alternatives. To ensure adequate collection and treatment system capacity to meet the growing needs of the City, CVWD and DWA have established long-range plans to address future demands that can adequately address the needs of all project alternatives and the Proposed Project.

In addition, policies and programs set forth for the Proposed Project also apply to Alternative 3 to address potential impacts to wastewater treatment facilities in the City. Policy 6.1 of the Water, Sewer and Utilities Sub-Element encourages CVWD and DWA to implement short- and long-term plans for an integrated, city-wide sewer system. Program 6.1.1 requires the City and service agencies to evaluate a wide range of methods to finance the expansion of the sewer system. Policies 6.2 and 6.3 of the Water, Sewer and Utilities Sub-Element require the City to monitor resource management activities of the CVWD, DWA, and CRWQCB to preserve and protect water resources and quality.

Overall, new wastewater treatment facilities or expansion of existing wastewater treatment facilities could be required as the population and corresponding demand for services increases. In the case of Alternative 3, this expansion would be less than for the Proposed Project or Alternative 1, as this Alternative generates less demand for additional capacity, but somewhat more demand than Alternative 2. However, each wastewater treatment facility would be evaluated on a project-by-project basis to assure that environmental impacts are mitigated, as needed.

[10] CVWD's 2015 Urban Water Management Plan (Page 6-22).

Implementation of policies and programs set forth in the Public Services and Utilities Sub-Element and measures set forth in Section 2.15.7 of this EIR would be applicable to Alternative 3, and would ensure impacts related to water supplies would be less than significant. Therefore, buildout of Alternative 3 would result in less than significant impacts related to wastewater treatment facilities.

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

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

The City contracts with Burrtec for solid waste collection and disposal services. Future residential development facilitated by Alternative 3 would decrease the population in the planning area when compared to the Proposed Project, but increase the demand for services from additional industrial development. At Alternative 3 buildout, approximately 54,053 residential units could be built within the planning area. Commercial uses could total 13,651,604 square feet, and industrial uses could total 14,426,811 square feet. Implementation of Alternative 3 would result in a population increase of approximately 103,756 new residents, resulting in a total citywide population of 158,222 persons at buildout. Although less than the Proposed Project, this increase in growth and development would result in an increase in solid waste generation, and increased demand for solid waste services throughout the City. Using solid waste generation factors provided by CalRecycle, buildout of Alternative 3 could result in the generation of approximately 87,887 tons per year of solid waste, assuming a 50% diversion rate (Table 3.15-6).

Table 3.15-6 Alternative 3
Estimated Solid Waste Disposal at Buildout

Land Use	CIWMB Disposal Rates	Conditions at Alternative 3 Buildout (2040)	Solid Waste Disposal (pounds per day)	Solid Waste Disposal (tons per year)
Residential	5.2 pounds/resident/day*	158,222 persons	822,754	150,153
Commercial	5 pounds/1000 square feet /day**	13,651,604 square feet	68,258	12,457
Industrial	5 pounds/1000 square feet /day**	14,426,811 square feet	72,134	13,164
		TOTAL	963,146	175,774
		TOTAL (with 50% diversion)	481,573	87,887

* California's 2017 Per Capita Disposal Rate, using SB 1016's measurement system, by CalRecycle.
**Estimated Solid Waste Generation Rates by CalRecycle.

As shown in Table 3.15-6, buildout of Alternative 3 would result in solid waste disposal of approximately 963,146 pounds per day, or 175,774 tons per year. State law (AB 939) requires a 50 percent diversion of solid waste from landfills; after diversion, solid waste disposal at Alternative 3 buildout is projected to be 481,573 pounds per day, or 87,887 tons per year. As discussed above, the three landfills serving the region have a combined remaining capacity of 178.8 million cubic yards. Waste generated by the development under Alternative 3 would not exceed the capacity of these landfills.

Cathedral City, Burrtec Waste Industries, and landfills serving Cathedral City are required to comply with applicable solid waste management and reduction statutes and regulations. Alternative 3 would have no significant impact on their compliance with these requirements.

Overall, with continuing adherence to the requirements of AB 939 and implementation of policies and programs set forth in the Public Services and Utilities Sub-Element and measures set forth in Section 2.15.7 of this EIR, impacts related to solid waste management would be less than significant.

3.15.3.3.1. Alternative 3 Mitigation Measures

With the implementation of the mitigation measures set forth in Section 2.15.7 of this EIR and relevant policies and programs set forth in the Public Utilities and Service Systems Sub-Element of the proposed General Plan and compliance with the standard conditions, no significant adverse impacts on these services are anticipated.

3.15.3.3.2. Alternative 3 Significance After Mitigation

Residual environmental effects associated with the implementation of Alternative 3 would be somewhat reduced from those for the Proposed Project. Through the application of the proposed General Plan policies and programs, and the mitigation measures set forth in Section 2.15.7 of this EIR, potential impacts can be avoided, minimized and/or reduced to levels that are less than significant.

3.15.3.3.3. Alternative 3 Cumulative Impacts

Public Services
Implementation of Alternative 3 would gradually increase population in the planning area, which would increase the demand for public services, thus requiring additional staffing, equipment, and facilities. Such growth would be somewhat less than anticipated long-term, regional growth in the Coachella Valley but would contribute incrementally to a broader increased demand for services. The proposed General Plan includes numerous policies and programs that require the City to monitor growth and expand services as needed, and to work collaboratively with various agencies to assure adequate services are provided. The programs and policies ensure impacts will be less than significant and that Alternative 3's impacts will be less than cumulatively considerable.

Utilities and Service Systems
Under Alternative 3, development facilitated by the proposed General Plan, in combination with all other development within the service boundaries of utility providers, would result in a somewhat lower demand for electricity, natural gas, wastewater, and solid waste resources and services, and a slightly higher demand for water due to the higher acreages for single-family residential. As private companies, SCE and SoCalGas continuously plan for growth and expand their infrastructure according to demand. Quasi-public agencies, such as CVWD and DWA, work with regional communities, including Cathedral City, to plan for growth. The proposed General Plan includes policies and programs, applicable to Alternative 3, that require the City to coordinate with local service providers to plan for future growth, require developers to contribute to the installation and operation of expanded infrastructure, and implement measures to reduce consumption of resources. These policies would minimize potential impacts associated with Alternative 3 such that they would not be cumulatively considerable.

3.15.4. Environmental Superior Alternative

At buildout, Alternative 2 would result in the fewest dwelling units and smallest population within the same area as the other alternatives. As a result, it would be expected to require the least amount of public and utility services and expansion of related infrastructures, such as the extension of electric and water and wastewater infrastructures and school enrolment. In this regard, Alternative 2 is environmentally superior to the other project alternatives.

3.16. Transportation

3.16.1. Introduction

This section of the EIR analyzes the potential impacts associated with the Project alternatives based on regional and local transportation conditions. It briefly describes existing conditions of the local transportation network and traffic volumes within Cathedral City and analyzes the potential impacts of the project alternatives on the surrounding transportation system and future long-term traffic conditions. As with other alternatives analyzed, it is assumed that the goals, policies and programs set forth in the proposed General Plan are also applicable to the alternative projects. It also assumes that the proposed an *Active Transportation Plan,* which facilitates the evolution of the City toward a more multi-modal transportation network, is also part of each alternative. Therefore, the following analysis qualitatively evaluates how alternative modes of transportation, such as bike lanes, public transit, and multi-modal facilities will affect local and regional roadways, levels of service and vehicle miles traveled.

3.16.2. Existing Conditions

Regional Setting
The Coachella Valley is bisected by Interstate-10, which extends in an east-west direction and connects the region to western Riverside County and the Los Angeles metropolitan area to the west, and desert communities and Arizona to the east. The valley is also connected to surrounding regions by State Highways 111, 74, and 62. Union Pacific Railroad provides regional freight and passenger rail service, and the Palm Springs International Airport serves as the region's primary airport.

Cathedral City is also bisected by Interstate-10; direct access is provided at the I-10/Date Palm Drive interchange. East Palm Canyon Drive (Highway 111) accommodates local and regional traffic through one of the City's principal commercial corridors and connects it with other Coachella Valley communities. Ramon Road is also an important east-west arterial providing six travel lanes through the City and adjoining communities to the east (Rancho Mirage) and west (Palm Springs), and access to the Bob Hope Drive /I-10 interchange and to the Gene Autry Drive /I-10 interchange. Other major arterials generally occur in a north-south/east-west grid pattern. Multi-modal connections in the City include bike lanes and paths, trails, sidewalks, and the first segment of CV Link, a regional pathway that will extend ±49 miles through the valley at buildout. SunLine Transit Agency provides mass transit service throughout the valley.

City Roadway Operations
The currently adopted and proposed General Plans establish Level-of-Service (LOS) D as the minimum peak hour system performance standard for the City's circulation network. The transportation analysis prepared in conjunction with the Proposed Project studied thirty (30) intersections and thirty-seven (37) roadway segments.[1] It determined that all the intersections are currently operating at acceptable LOS, with the exception of the following:

- Date Palm Drive/Varner Road (#10) – LOS F PM peak hour only
- Cathedral Canyon Drive/Ramon Road (#14) – LOS E AM and PM peak hours
- Landau Boulevard/Ramon Road (#17) – LOS E AM peak hour only
- Mountain View Road/Varner Road (#20) – LOS F AM peak hour only.

Only one of the four intersections is "built out" and is designated a "special study area" in the proposed General Plan. The other three intersections will receive further physical improvements in the future and are expected to operate at LOS D or better in future years.

[1] "Cathedral City General Plan Update Transportation Analysis, Cathedral City, California," Urban Crossroads, Inc., February 13, 2019.

The analysis conducted for the proposed General Plan (see Section 2.16) also evaluated traffic signal warrants and found that:

- the existing unsignalized intersection of Date Palm/Varner Road (#10) appears to meet traffic signal warrants under existing conditions
- the existing unsignalized intersection of Mountain View Road/Varner Road (#20) almost meets traffic signal warrants under existing conditions. Monitoring of the intersection is recommended to determine if the signal warrant is satisfied as ambient or potential nearby development growth occurs.

3.16.3. Alternatives Impact Analysis

3.16.3.1. Alternative 1

3.16.3.1.1. Alternative 1 Impacts

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

City LOS Policy
The current General Plan establishes LOS D as the minimum peak hour system performance standard for the City's circulation network. As discussed in Section 2.16.6.a of this EIR, at buildout of the Proposed Project, all study area roadway segments are projected to operate at an acceptable LOS, except for eight (8) segments that could operate at LOS E or F. Additionally, all intersections are projected to operate at an acceptable LOS, except for two (2) that would operate at LOS E or F during peak hours and which currently operate at unacceptable levels.

The transportation analysis prepared in conjunction with the Proposed Project determined that buildout of Alternative 1 would generate approximately 19,813 more vehicle trip ends per day than the Proposed Project.[2] This constitutes a 1.8 percent increase in total daily traffic volumes compared to the Proposed Project. While it is reasonable to expect that the additional trips would affect future LOS operating conditions on study area roadway segments and intersections, the additional traffic would be distributed network-wide and its effects would be very limited. Implementation of the mitigation measures cited for the Proposed Project in Section 2.16.7 would serve to reduce potential impacts, and may serve to mitigate impacts to acceptable levels.

Roadway Classifications
Alternative 1 would result in the same roadway classifications as those proposed by the Proposed Project (see Section 2.16.6). The classifications are updated and further diversified versions that account for existing built and non-automotive features, and which optimize the implementation of the City's multi-modal strategy as set forth in the Circulation and Mobility Element and the Active Transportation Plan. As with the Proposed Project, impacts would be less than significant.

Roadway Cross-Sections
Alternative 1 would result in the same roadway widths and the more diversified and tailored cross-sections set forth in the Proposed Project (see Section 2.16.6). The cross-sections are updated versions that incorporate Complete Streets strategies and account for existing and projected traffic volumes. As with the Proposed Project, impacts associated with Alternative 1 would be less than significant.

[2] Table 2 of Appendix 4.1: General Plan Alternatives Land Use and Trip Generation Comparisons, "Cathedral City General Plan Update Transportation Analysis, Cathedral City, California," Urban Crossroads, Inc., February 13, 2019.

Alternative Transportation Plans
As with the Proposed Project, Alternative 1 would result in adoption and implementation of a City-specific Active Transportation Plan (ATP), which builds upon earlier multi-modal efforts and the bicycle, pedestrian, and NEV facilities identified in the CVAG ATP and CVAG NEV Plan. The City ATP and proposed policies of the General Plan Circulation and Mobility Element are consistent with Complete Streets and sustainable communities strategies of the CVAG plans and SCAG's RTP/SCS. Beyond the standards and guidance set forth in the Circulation and Mobility Element, the proposed Community Design Element includes policies and programs (which would continue to apply in Alternative 1) that encourage a land use patterns that more strongly supports multi-modal transportation, including more mixed use and transit-oriented development (TOD), that will also serve to shift motor vehicle trips to other modes of travel. As with the Proposed Project, impacts to alternative transportation plans would be less than significant.

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

As explained above, buildout of Alternative 1 is projected to generate approximately 19,813 (or 1.8 percent) more vehicle trips per day than the Proposed Project. It can be expected, therefore, that Alternative 1 would also result in more vehicle miles traveled (VMT) (0.27 percent) than the Proposed Project but this increase would be distributed network-wide and its effects, compared to the Proposed Project, would be very limited at any given location in the roadway network.

Is must be noted that, as with the Proposed Project, Alternative 1 covers all of Cathedral City which is well-served by existing transit services, routes, and stops along high-quality transit corridors, the use of which would reduce vehicular trips and VMTs. As with the Proposed Project, the Circulation and Mobility Element would apply to Alterative 1 and its policies and programs would contribute to reduced city-wide average daily trips and VMTs. Additionally, Alternative 1 would implement the Active Transportation Plan (ATP) that is aimed at increasing use of multi-modal transportation facilities and decreasing VMTs. As with the Proposed Project, impacts would be less than significant.

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

Compared to the Proposed Project, Alternative 1 increases the potential land use intensities of some vacant parcels of land, such as increasing residential densities or replacing business park uses. However, in the overall, Alternative 1 provides reasonable land use compatibility throughout the City by, for example, locating commercial lands along major arterials and truck routes, and lowering density residential lands further from arterials to limit intrusion from traffic volumes and noise, such that land use incompatibilities are minimized. Vehicular incompatibilities associated with farm equipment are not anticipated in the planning area because the City does not contain farmland.

As with the Proposed Project, development-specific roadway and intersection geometries and improvements do not change significantly between project alternatives, and would be reviewed by the City and other agencies, as appropriate, when development proposals are received. Policy 4 of the Circulation and Mobility Element would require that project-specific traffic studies be prepared and mitigation measures be provided, as necessary. With implementation of General Plan policies and programs, as well as standard City requirements, impacts of Alternative 1 would be less than significant, the same level of impact as the Proposed Project.

d) Result in inadequate emergency access.

Alternative 1 does not propose any land use designations or physical improvements that would result in inadequate emergency access. As with the Proposed Project, implementation of Alternative 1 would facilitate new urban development which could affect emergency access during and after construction. However, implementation of standard requirements, including development plan reviews by City staff (including City Police and Fire

Departments) and other appropriate agencies, as well as Program 2.B, Policy 3, and Program 3.A of the General Plan Emergency Preparedness Sub-Element would assure that future development projects maintain adequate emergency access and evacuation routes. As with the Proposed Project, impacts of Alternative 1 would be less than significant.

3.16.3.1.2. Alternative 1 Mitigation Measures

Alternative 1 would be subject to the policies and programs set forth in the proposed Circulation and Mobility Element (including the City ATP) and the Community Design Element. It would also be subject to the avoidance, minimization and mitigation measures described in Section 2.16.7 for the Proposed Project. No additional mitigation or other measures would be required.

3.16.3.1.3. Alternative 1 Significance After Mitigation

After implementation of the above cited policies, programs and mitigation measures, impacts of Alternative 1 would be less than significant.

3.16.3.1.4. Alternative 1 Cumulative Impacts

The City and other jurisdictions in the Coachella Valley, including its other cities and Riverside County, participate in regional transportation planning that coordinates existing and future land uses with the expansion and evolution of the local and regional transportation system. These planning and funding activities are further coordinated through the Coachella Valley Association of Governments (CVAG), the Riverside County Transportation Commission (RCTC), and the Southern California Association of Governments' (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). This integrated long-range planning approach ensures that future impacts associated with implementation of Alternative 1 would not be cumulatively considerable.

3.16.3.2. Alternative 2

3.16.3.2.1. Alternative 2 Impacts

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

City LOS Policy

The current General Plan establishes LOS D as the minimum peak hour system performance standard for the City's circulation network. As discussed in Section 2.16.6.a of this EIR, at buildout of the Proposed Project, all study area roadway segments are projected to operate at an acceptable LOS, except for eight (8) segments that would operate at LOS E or F. Additionally, all intersections are projected to operate at an acceptable LOS, except for two (2) that would operate at LOS E or F during peak hours and which currently operate at unacceptable levels.

The transportation analysis prepared in conjunction with the Proposed Project determined that buildout of Alternative 2 would generate approximately 38,379 fewer vehicle trip ends per day than the Proposed Project.[3] This constitutes a 3.6 percent reduction in total daily traffic volumes compared to the Proposed Project. It is reasonable to expect that the reduced number of trips would positively affect future LOS operating conditions on study area roadway segments and intersections, the reduced trips traffic would be distributed network-wide and the effects would be limited, if comparatively beneficial. Implementation of the mitigation measures cited for the Proposed Project in Section 2.16.7 would serve to further reduce potential impacts, and may serve to further mitigate impacts to ensure acceptable levels.

[3] Table 2 of Appendix 4.1: General Plan Alternatives Land Use and Trip Generation Comparisons, "Cathedral City General Plan Update Transportation Analysis, Cathedral City, California," Urban Crossroads, Inc., February 13, 2019.

Roadway Classifications
Alternative 2 would result in the same roadway classifications as those proposed by the Proposed Project (see Section 2.16.6). The classifications are updated and further diversified versions that account for existing built and non-automotive features, and which optimize the implementation of the City's multi-modal strategy as set forth in the Circulation and Mobility Element and the Active Transportation Plan. As with the Proposed Project, Alternative 2 impacts would be less than significant.

Roadway Cross-Sections
Alternative 2 would result in the same roadway widths and the more diversified and tailored cross-sections set forth in the Proposed Project (see Section 2.16.6). The cross-sections are updated versions that incorporate Complete Streets strategies and account for existing and projected traffic volumes. As with the Proposed Project, impacts associated with Alternative 2 would be less than significant.

Alternative Transportation Plans
As with the Proposed Project, Alternative 2 would result in adoption and implementation of a City-specific Active Transportation Plan (ATP), which builds upon earlier multi-modal efforts and the bicycle, pedestrian, and NEV facilities identified in the CVAG ATP and CVAG NEV Plan. The City ATP and proposed policies of the General Plan Circulation and Mobility Element are consistent with Complete Streets and sustainable communities strategies of the CVAG plans and SCAG's RTP/SCS. Beyond the standards and guidance set forth in the Circulation and Mobility Element, the proposed Community Design Element includes policies and programs (which would continue to apply in Alternative 2) that encourage a land use patterns that more strongly supports multi-modal transportation, including more mixed use and transit-oriented development (TOD), that will also serve to shift motor vehicle trips to other modes of travel. As with the Proposed Project, impacts to alternative transportation plans would be less than significant.

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

As explained above, buildout of Alternative 2 is projected to generate approximately 38,379 (or 3.6 percent) fewer vehicle trips per day than the Proposed Project. It can be expected, therefore, that Alternative 2 would also result in proportionately fewer vehicle miles traveled (VMT) than the Proposed Project. This decrease would be distributed network-wide and its effects, compared to the Proposed Project, would be limited at any given location in the roadway network.

As noted above, and as with the Proposed Project, Alternative 2 covers all of Cathedral City which is well-served by existing transit services, routes, and stops along high-quality transit corridors, the use of which would further reduce vehicular trips and VMTs. As with the Proposed Project, the Circulation and Mobility Element would apply to Alterative 2 and its policies and programs would contribute to reduced city-wide average daily trips and VMTs. Additionally, Alternative 2 would implement the Active Transportation Plan (ATP) that is aimed at increasing use of multi-modal transportation facilities and decreasing VMTs. As with the Proposed Project, impacts would be less than significant.

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

Compared to the Proposed Project, Alternative 2 decreases the potential land use intensities of some vacant parcels of land, such as decreasing residential densities or replacing mixed-use with industrial uses. In the overall, Alternative 2 provides reasonable land use compatibility throughout the City by, for example, by continuing the patterns of locating commercial lands along major arterials and truck routes, and lowering density residential lands further from arterials to limit intrusion from traffic volumes and noise, such that land use incompatibilities are minimized. Vehicular incompatibilities associated with farm equipment are not anticipated in the planning area because the City does not contain farmland.

As with the Proposed Project, development-specific roadway and intersection geometries and improvements do not change significantly between project alternatives, and would be reviewed by the City and other agencies, as appropriate, when development proposals are received. Policy 4 of the Circulation and Mobility Element would require that project-specific traffic studies be prepared and mitigation measures be provided, as necessary. With implementation of General Plan policies and programs, as well as standard City requirements, impacts of Alternative 2 would be less than significant, the same level of impact as the Proposed Project.

d) Result in inadequate emergency access.

Alternative 2 does not propose any land use designations or physical improvements that would result in inadequate emergency access. As with the Proposed Project, implementation of Alternative 2 would facilitate new urban development which could affect emergency access during and after construction. However, implementation of standard requirements, including development plan reviews by City staff (including City Police and Fire Departments) and other appropriate agencies, as well as Program 2.B, Policy 3, and Program 3.A of the General Plan Emergency Preparedness Sub-Element, would ensure that future development projects maintain adequate emergency access and evacuation routes. As with the Proposed Project, impacts of Alternative 2 would be less than significant.

3.16.3.2.2. Alternative 2 Mitigation Measures

Alternative 2 would be subject to the policies and programs set forth in the proposed Circulation and Mobility Element (including the City ATP) and the Community Design Element. It would also be subject to the avoidance, minimization and mitigation measures described in Section 2.16.7 for the Proposed Project. No additional mitigation or other measures would be required.

3.16.3.2.3. Alternative 2 Significance After Mitigation

After implementation of the above cited policies, programs and mitigation measures, impacts of Alternative 2 would be less than significant.

3.16.3.2.4. Alternative 2 Cumulative Impacts

As noted above and discussion in Section 2.16, the City and other jurisdictions in the Coachella Valley, including its other cities and Riverside County, participate in regional transportation planning that coordinates existing and future land uses with the expansion and evolution of the local and regional transportation system. These planning and funding activities are further coordinated through the Coachella Valley Association of Governments (CVAG), the Riverside County Transportation Commission (RCTC), and the Southern California Association of Governments' (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). This integrated long-range planning approach ensures that future impacts associated with implementation of Alternative 2 would not be cumulatively considerable.

3.16.3.3. Alternative 3

3.16.3.3.1. Alternative 3 Impacts

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

City LOS Policy
The current General Plan establishes LOS D as the minimum peak hour system performance standard for the City's circulation network. As discussed in Section 2.16.6.a of this EIR, at buildout of the Proposed Project, all study area roadway segments are projected to operate at an acceptable LOS, except for eight (8) segments that would operate at LOS E or F. Additionally, all intersections are projected to operate at an acceptable LOS, except for two (2) that would operate at LOS E or F during peak hours and which currently operate at unacceptable levels.

The transportation analysis prepared in conjunction with the Proposed Project determined that buildout of Alternative 3 would generate approximately 6,586 more vehicle trip ends per day than the Proposed Project.[4] This constitutes a 0.6 percent increase in total daily traffic volumes compared to the Proposed Project. It is reasonable to expect that the modestly increased number of trips would affect future LOS operating conditions on study area roadway segments and intersections, the additional traffic would be distributed network-wide and its effects would be very limited. Implementation of the mitigation measures cited for the Proposed Project in Section 2.16.7 would serve to reduce potential impacts, and serve to mitigate impacts to acceptable levels.

Roadway Classifications
Alternative 3 would result in the same roadway classifications as those proposed by the Proposed Project (see Section 2.16.6). The classifications are updated and further diversified versions that account for existing built and non-automotive features, and which optimize the implementation of the City's multi-modal strategy as set forth in the Circulation and Mobility Element and the Active Transportation Plan. As with the Proposed Project, impacts associate with Alternative 3 would be less than significant.

Roadway Cross-Sections
Alternative 3 would result in the same roadway widths and the more diversified and tailored cross-sections set forth in the Proposed Project (see Section 2.16.6). The cross-sections are updated versions that incorporate Complete Streets strategies and account for existing and projected traffic volumes. As with the Proposed Project, impacts associated with Alternative 3 would be less than significant.

Alternative Transportation Plans
As with the Proposed Project, Alternative 3 would result in adoption and implementation of a City-specific Active Transportation Plan (ATP), which builds upon earlier multi-modal efforts and the bicycle, pedestrian, and NEV facilities identified in the CVAG ATP and CVAG NEV Plan. The City ATP and proposed policies of the General Plan Circulation and Mobility Element are consistent with Complete Streets and sustainable communities strategies of the CVAG plans and SCAG's RTP/SCS. Beyond the standards and guidance set forth in the Circulation and Mobility Element, the proposed Community Design Element includes policies and programs (which would continue to apply in Alternative 3) that encourage a land use patterns that more strongly supports multi-modal transportation, including more mixed-use and transit-oriented development (TOD), that will also serve to shift motor vehicle trips to other modes of travel. As with the Proposed Project, impacts to alternative transportation plans associated with Alternative 3 would be less than significant.

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

As explained above, buildout of Alternative 3 is projected to generate approximately 6,586 (or 0.6 percent) more vehicle trips per day than the Proposed Project. It can be expected, therefore, that Alternative 3 would also result in proportionately more vehicle miles traveled (VMT) than the Proposed Project but this increase would be very limited, would be distributed network-wide and its effects, compared to the Proposed Project, would be very limited at any given location in the roadway network.

[4] Table 2 of Appendix 4.1: General Plan Alternatives Land Use and Trip Generation Comparisons, "Cathedral City General Plan Update Transportation Analysis, Cathedral City, California," Urban Crossroads, Inc., February 13, 2019.

As with the Proposed Project, Alternative 3 covers all of Cathedral City which is well-served by existing transit services, routes, and stops along high-quality transit corridors, the use of which would reduce vehicular trips and VMTs. As with the Proposed Project, the Circulation and Mobility Element would apply to Alterative 3 and its policies and programs would contribute to reduced city-wide average daily trips and VMTs. Additionally, Alternative 3 would implement the Active Transportation Plan (ATP) that is aimed at increasing use of multi-modal transportation facilities and decreasing VMTs. As with the Proposed Project, impacts would be less than significant.

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

Compared to the Proposed Project, Alternative 3 increases the potential land use intensities of some vacant parcels of land, but in a very modest degree. In the overall, Alternative 3 provides reasonable land use compatibility throughout the City by, for example, locating commercial lands along major arterials and truck routes, and lowering density residential lands further from arterials to limit intrusion from traffic volumes and noise, such that land use incompatibilities are minimized. Vehicular incompatibilities associated with farm equipment are not anticipated in the planning area because the City does not contain farmland.

As with the Proposed Project, development-specific roadway and intersection geometries and improvements do not change significantly between project alternatives, and would be reviewed by the City and other agencies, as appropriate, when development proposals are received. Policy 4 of the Circulation and Mobility Element would require that project-specific traffic studies be prepared and mitigation measures be provided, as necessary. With implementation of General Plan policies and programs, as well as standard City requirements, impacts of Alternative 3 would be less than significant, the same level of impact as the Proposed Project.

d) Result in inadequate emergency access.

Alternative 3 does not propose any land use designations or physical improvements that would result in inadequate emergency access. As with the Proposed Project, implementation of Alternative 3 would facilitate new urban development which could affect emergency access during and after construction. However, implementation of standard requirements, including development plan reviews by City staff (including City Police and Fire Departments) and other appropriate agencies, as well as Program 2.B, Policy 3, and Program 3.A of the General Plan Emergency Preparedness Sub-Element would assure that future development projects maintain adequate emergency access and evacuation routes. As with the Proposed Project, impacts of Alternative 3 would be less than significant.

3.16.3.3.2. Alternative 3 Mitigation Measures

Alternative 3 would be subject to the policies and programs set forth in the proposed Circulation and Mobility Element (including the City ATP) and the Community Design Element. It would also be subject to the avoidance, minimization and mitigation measures described in Section 2.16.7 for the Proposed Project. No additional mitigation or other measures would be required.

3.16.3.3.3. Alternative 3 Significance After Mitigation

After implementation of the above cited policies, programs and mitigation measures, impacts of Alternative 3 would be less than significant.

3.16.3.3.4. Alternative 3 Cumulative Impacts

The City and other jurisdictions in the Coachella Valley, including its other cities and Riverside County, participate in regional transportation planning that coordinates existing and future land uses with the expansion and evolution of the local and regional transportation system. These planning and funding activities are further coordinated through the Coachella Valley Association of Governments (CVAG), the Riverside County Transportation Commission (RCTC), and the Southern California Association of Governments' (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). This integrated long-range planning approach ensures that future impacts associated with implementation of Alternative 3 would not be cumulatively considerable.

3.16.4. Environmental Superior Alternative

On the basis of trips generated and VMTs, Alternative 2 is environmental superior to the other alternatives and to the Proposed Project. With regard to other measures of significance, all of the alternatives, including the Proposed Project, are equivalent to one another. It should be noted that the impacts of the alternatives take into account only qualitatively the effects associated with the new emphasis on mixed-use and transit-oriented land uses, and on the effects associated with an increased focus on multi-modal transportation. Nonetheless, Alternative 2 appears to be environmentally superior to the other alternatives but its adoption is not required to mitigate for significant unavoidable impacts.

3.17. Conclusion and Overall Environmentally Superior Alternative

Based on the analysis contained within this section, the environmentally superior project alternative is determined to be the Proposed Project (per CEQA 15126.6).

The overall impacts of each of the project alternatives, compared to each other and to the Proposed Project, are largely the same but do have limited differences. The lands potentially affected by the alternatives do not differ; that is, there are no open space lands in one that are impacted in another. Therefore, the differences are in the type and intensity of land uses. There are several areas of potential impact where alternatives differ to a meaningful extent: geology and soils, hazards and hazardous materials, hydrology and water quality/resources, energy and mineral resources, public and facilities and services. Other areas where impacts could vary include parks and recreation resources, transportation and utilities.

With regard to geotechnical conditions, these do not change but the extent of development and the number of people that could be exposed to major seismic events is greater, particularly in terms of physical improvements (buildings). Therefore, in this regard Alternative 2 could be argued to be superior to the others. There will be a lower permanent population and fewer buildings and other improvements, including critical infrastructure constructed under this alternative.

Table 3.17-1
Environmentally Superior Alternative Checklist

Topic	Proposed Project	Alt. 1: More Intense	Alt. 2: Less Intense	Alt. 3: No Project
Aesthetics	LS	LS/SI	LS/SI	LS/SI
Agriculture and Forestry	NI	NI/SI	NI/SI	NI/SI
Air Quality and GHG	SU	SU/MI	SU/LI	SU/LI
Biological Resources	LSM	LSM/SI	LSM/SI	LSM/SI
Cultural and Tribal Cultural	LSM	LSM/SI	LSM/SI	LSM/SI
Geology and Soils	LSM	LSM/MI	LSM/LI	LSM/SI
Hazards and Hazardous Materials	LS	LS/MI	LS/LI	LS/LI
Hydrology and Water Quality/Resources	LS	LS/MI	LS/LI	LS/SI
Land Use and Planning	LS	LS/SI	LS/SI	LS/SI
Energy and Mineral	LSM	LSM/MI	LSM/LI	LSM/LI
Noise	LSM	LSM/SI	LSM/LI	LSM/LI
Population, Housing and Socio-Economic	LS	LS/SI	LS/LI	LS/LI
Public Services	LSM	LSM/MI	LSM/LI	LSM/LI
Recreation	LSM	LSM/MI	LSM/LI	LSM/LI
Transportation and Traffic	LSM	LSM/MI	LSM/LI	LSM/SI
Utilities and Service Systems	LSM	LSM/MI	LSM/LI	LSM/LI

NI = No Impact
LS = Less than Significant
LSM = Less than Significant with Mitigation
SU = Significant and Unavoidable
MI = More Impact than Proposed Project
LI =Less Impact than Proposed Project
SI = Similar Impact to Proposed Project

In consideration of hydrology and water resources/quality, Alternative 2 would appear to be superior in this regard as well. While is can be presumed that the threat of flooding will be addressed equally, the level of resource consumption and the potential for impacts to water quality could be less under this least intense alternative. Therefore, Alternative 2 appears to be modestly superior to the other alternatives.

Impacts to energy and mineral resources appear to be greatest under the Alternative 1 scenario, with higher populations and more extensive industrial development. However, if residential development is more compact with higher average densities per acre, the contribution of residential development to increased water demand may be reduced on a per capita basis. Increases in other land uses, including industrial development, may result in higher demand for water resources. Therefore, it is arguable that two of the alternatives will result in equal or lower impacts, compared to the Proposed Project, but that Alternative 2 could result in modestly greater impacts.

With regard to impacts to public services, utilities and service systems, these would be most affected by differences in the permanent population at buildout. To the extent Alternative 2 generates the lowest potential permanent population, it is environmentally superior to the others. To the extent that Alternative 2 may result in lower residential densities and perhaps less efficient use of lands to be developed, the impact-reducing effects of this alternative may be lessened. Nonetheless, Alternative 2 still looks to be superior with regard to these areas of potential impact.

As regards transportation impacts, Alternative 2 is superior to all the others in that it will generate the lowest overall vehicular traffic and associated vehicle miles traveled. It may also modestly improve the roll out of multi-modal facilities in the City by placing less pressure on the roadway network to accommodate motor vehicles and may also serve to enhance multi-modal safety with less cars and trucks on the roads. This alternative may also serve to ensure that special study areas in the transportation network can be addressed at lower costs.

Conclusion

In the overall, the Less Intense development scenario represented by Alternative 2 is arguably environmentally superior to the other alternatives and the Proposed Project, even if modestly so. It is difficult to predict how changes in transportation, energy sources and services, and other aspects of urban design and development may affect the future City, regardless of the future intensity of development, but based on current conditions and the evolution of how urban development is served, Alternative 2 can be considered to be modestly superior to all alternatives considered.

Cathedral City

City of Cathedral City General Plan Update

ENVIRONMENTAL IMPACT REPORT

4. UNAVOIDABLE SIGNIFICANT IMPACTS

Introduction

Unavoidable significant impacts are those that cannot be reduced to acceptable or insignificant levels by the implementation mitigation measures. Impacts associated with buildout of the Cathedral City 2040 General Plan Update are addressed in detail in Section 2 of this EIR. Comprehensive mitigation measures, as well as monitoring and reporting programs, have been developed to address potential impacts. In most cases, the mitigation measures set forth in this Draft EIR will demonstrably and effectively reduce all potentially significant impacts to levels of insignificance. However, greenhouse gas emission levels could not be mitigated to less than significant levels and are considered unavoidable significant impacts.

Greenhouse Gas

Operational activities would result in the generation and emission of greenhouse gases, which could have significant impacts to air quality locally and regionally. There are five emission source categories that contribute either directly or indirectly to operational GHG emissions, including energy/electricity usage, water usage, solid waste disposal, area emissions (pavement and architectural coating off-gassing), and mobile sources.

To achieve the AB 32 target by 2020, Cathedral City would have to cut GHG emissions by 23.4%, or 55,909 tonnes to limit future emissions to 183,424 tonnes (1990 levels). To achieve the SB 32 target of 40% below 1990 emissions, the City would need to reduce emissions to a total of 110,054 tonnes. Currently, there are no adopted 2040 reduction targets, however CARB is working towards a 2050 climate goal to reduce GHG emissions by 80 percent below 1990 levels, which would require the City to reduce GHG emissions to a total of 36,685 tonnes annually.

As shown in Section 2.4, Table 2.4-5, Project-generated operational emissions have the potential to exceed the City's AB 32 and SB 32 reduction targets for 2020 through 2050[1]. Implementation of the Climate Action Plan is intended to reduce impacts associated with the emission of greenhouse gases within City limits to levels that are less than significant. In addition, the General Plan's Air Quality Policy 10 ensures that the City's CAP and GHG Inventory are regularly updated to include current trends in technology, climate regulations, and to track the City's efforts to reduce overall greenhouse gas emissions. Policies 5 through 7 promote the use of alternative energy sources and modes of transportation that can further reduce the City's GHG emissions.

[1] The International Council for Local Governmental Initiatives (ICLEI) Clean Air and Climate Protection (CACP) software and California Air Resources Board-approved Local Government Operations Protocol (LGOP) were used for the City's Greenhouse Gas Inventory and Climate Action Plan. The GHG emission projections for the City's Climate Action Plan and Greenhouse Gas Inventory are based on direct emissions from major source categories within the City limits, which were derived from utility bills and real consumption data. Results shown in Table 2.4-5 may differ from future CAP and GHG Inventory updates.

Individual projects developed under the 2040 General Plan will be assessed on a case-by-case basis for potential impacts related to GHG emissions. Implementation of mitigation measures AQ-9 through AQ-42 will help to reduce GHG emissions to the greatest extent feasible. However, based on the GHG projections in Section 2, it is possible that the 2040 General Plan update would generate GHG emissions that could have a significant and unavoidable impact on the environment.

Cumulative Impacts

Based on the analysis above, the 2040 General Plan has the potential to make a cumulatively considerable contribution to GHG levels due to the increased emission levels. Although the 2040 General Plan policies and programs represent the best practicable strategies to reduce emissions associated with buildout, and are consistent with State regulations and guidelines, no additional mitigation is currently available to reduce this impact to a less than significant level. Cumulative impacts could be significant and unavoidable.

Cathedral City

City of Cathedral City General Plan Update

ENVIRONMENTAL IMPACT REPORT

5. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF ENVIRONMENTAL RESOURCES

As required by CEQA Section 15126.2(c), this section of the EIR addresses the potentially significant irreversible environmental changes to or loss of non-renewable resources that could occur from implementation of the Proposed Project. In general, non-renewable resources imply fossil-based energy resources, but may also pertain to the permanent loss of agricultural, biological, mineral and other natural resources. The use of non-renewable resources during construction of future projects allowed by the General Plan Update, and long-term impacts associated with the build out of the City may be irreversible and irretrievable.

Buildout of the Cathedral City 2040 General Plan Update will result in the irretrievable and irreversible commitment of non-renewable natural resources, including energy resources such as petroleum and natural gas, water resources, and mineral resources used for construction materials, such as concrete and steel.

Future development and redevelopment facilitated by the proposed General Plan Update would increase the demand for sand and gravel resources for roadways, infrastructure, and building construction (See Section 2.7 Mineral and Energy Resources.) These resources could be derived from the regional Coachella Valley market, but the demand for sand and gravel resources would not be considered significant when compared to available regional resources.

The Proposed Project would result in an overall increase in housing units, commercial square footage, and industrial square footage. The development of these increased land use densities would also contribute to the need for additional energy supplies (i.e., natural gas, electricity). However, due to efficiencies in land use planning, the Proposed Project will reduce overall vehicle miles traveled (VMT) at buildout. This VMT reduction is primarily due to a reduction in trip generation, combined with a shift in the relationship between residential and non-residential uses.

The annual demand for electricity (in kWh), natural gas (in therms), and transportation fuel (gasoline and diesel, in gallons), was estimated for the 2040 General Plan and is presented in Section 2.7, Tables 2.7-3 and 2.7-4. Future development facilitated by the proposed General Plan Update would be evaluated on a project-by-project basis to assure each project is designed, built, and operated in accordance with all applicable energy-related regulations, including energy efficiency and conservation standards. Energy related impacts are considered less than significant because the proposed 2040 General Plan would implement a number of policies designed to minimize wasteful, inefficient, or unnecessary consumption of energy. Mitigation Measures ME-1 through ME-6, in Section 2.7 of this EIR will ensure impacts related to energy efficiency are less than significant.

Buildout of the General Plan Update will marginally change the physical environment, insofar that it will drive development and re-development of lands within the City. However, development will occur in already partially developed areas, adjacent to or near existing neighborhoods or street grids, and changes to the physical environment are considered *planned development* and impacts will be less than significant.

The proposed General Plan Update would facilitate future urban development that could disturb or permanently remove sensitive species and/or their habitats. As discussed in Section 2.5, future development projects facilitated under the proposed General Plan would be evaluated on a project-by-project basis for potential adverse impacts to sensitive species and required to implement mitigation measures, as needed. Lands within designated conservation areas would continue to be protected under the Proposed Project. Impacts to biological resources would be mitigated to less than significant levels through policies and programs of the proposed General Plan Biological Resources Sub-Element, General Plan land use plan, and mitigation measures set forth in Section 2.5.

In summary, although the Proposed Project will result in the irreversible loss of finite resources, the loss will not be significant, and is consistent with planned development goals within the City.

Cathedral City

City of Cathedral City General Plan Update

ENVIRONMENTAL IMPACT REPORT

6. GROWTH INDUCING IMPACTS

A. Growth Inducement

The Proposed Project land use development scenario will not overtly, incidentally or significantly induce growth or change the physical conditions in the General Plan study area. The Proposed Project includes changes in land use assignments on currently vacant lands, which improve the balance between jobs and housing and infrastructure, when compared to the current General Plan. The Proposed Project also improves land use adjacencies or compatibilities that improve access to employment centers, commercial services, education institutions and parks and recreation opportunities. Nonetheless, the Proposed Project will contribute an incremental increase in growth over the long-term, particularly in the northern planning area south of the UPRR/I-10 corridor. The Proposed Project intends to maintain and enhance the City's residential character, while it continues to provide expanded opportunities for housing, business and employment, and growth in other sectors of the local economy.

It should be noted that while the Proposed Project, as with all of the project alternatives, will facilitate the extension of roads and infrastructure, the resulting growth is planned both on a local and regional level. Therefore, growth that is facilitated by the Proposed Project is not of a type or extent that is inadvertently induced in the sense meant by CEQA. Growth in the City will be highly coordinated both locally and regionally, and will continue to coordinate land use and transportation, as well as public services and utilities.

Growth associated with the implementation of the Proposed Project will be regulated and limited by policies, programs and physical constraints. Extensive portions of the planning area north of Interstate-10 are in conservation, and additional lands are slated for acquisition and management for the protection of open space and biological resources. Similarly, in the northern portion of the City, large areas located within and near Willow Hole and the western slopes of the Indio Hills (Edom Hill), including mesquite hummocks, are designated as Open Space-Public and are or are planned for public or quasi-public conservation ownership, and include existing BLM lands. Also, the Proposed Project designates the mountainous areas, including the Santa Rosa Mountains, in a manner that does not facilitate significant development on these lands. These open space lands are or will be conserved in perpetuity under the Coachella Valley Multi-Species Habitat Conservation Plan, to which the City is a Permittee.

B. Cumulative Impacts

Impacts associated with the implementation of the General Plan must be considered along with the effects of other development, which may also occur outside the City's General Plan study area and jurisdiction. CEQA identifies these as cumulative impacts (Section 21083 (b), CEQA Statutes and Section 15355 of the CEQA Guidelines). In this EIR, cumulative impacts have been addressed categorically for the Proposed Project in Section 2.0 and for project alternatives in Section 3.0.

Cathedral City

City of Cathedral City General Plan Update

ENVIRONMENTAL IMPACT REPORT

7. SHORT-TERM USE VERSUS LONG-TERM PRODUCTIVITY

This section of the EIR provides a discussion of the long-term effects of the Proposed Project by evaluating the relationship between the local short-term uses of the environment and the maintenance and enhancement of long-term productivity. Areas of impact which limit the range of beneficial uses of the environment or pose long-term risks to health and safety, have been given special focused consideration. These may include biological resources, water resources, energy resources, air resources and visual resources. This section also discusses why the Proposed Project is believed to be justified for adoption and implementation at this time, rather than delaying its adoption to consider additional alternatives not addressed in this EIR.

Biological Resources

The continued development of the General Plan planning area will include the disturbance and conversion of natural lands, and construction of improvements that will result in the loss of natural plant communities and wildlife. Habitat loss, fragmentation and degradation are direct consequences of land development activities. The proposed General Plan prohibits or significantly limits development on lands designated as habitat conservation and other sensitive areas. The Proposed Project also provides substantial restrictions to the density and intensity of development permitted near and/or adjacent to sensitive areas, and requires adherence to the *Land Use Adjacency Guidelines* set forth in the *Coachella Valley Multiple Species Habitat Conservation Plan* (CVMSHCP). Nonetheless, buildout of the General Plan planning area will result in the degradation or removal of biological resources within the planning area.

The continued development of the General Plan planning area could result in significant impacts to common and sensitive species such as the Coachella Valley Fringe-toed lizard, flat-tailed horned lizard, burrowing owl, Peninsular bighorn sheep and the Palm Springs pocket mouse which occupy natural habitats within the study area. Adverse impacts may include the legal taking of individual animals pursuant to the allowed incidental take permits issues under the CVMSHCP. It should be noted that no incidental take of Peninsular bighorn sheep is permitted under the CVMSHCP or its associated *Natural Communities Conservation Plan* (NCCP) approved by the State. The County of Riverside, CVAG, and City of Cathedral City along with other desert communities and the Coachella Valley Mountains Conservancy, the Friends of the Desert Mountains and others, are working with federal and state agencies in the implementation of the Multiple Species Habitat Conservation Plan to protect a broad range of species and their habitat. Lands designated within *Conservation Areas* by the CVMSHCP, include the aforementioned lands in the northern portions of the City and in the Santa Rosa Mountains, and are planned for long-term conservation.

The General Plan includes policies and programs that ensure that the City complies with applicable conservation lands management protocol when evaluating potential impacts and mitigation measures. Appropriate incidental take permits and associated mitigation measures are required prior to development whenever state and/or federal listed

species are identified that are not designated as "Covered Species" under the CVMSHCP, including the aforementioned bighorn sheep, Casey's June beetle, burrowing owl and other birds covered under the *Migratory Bird Treaty Act* (MBTA). In general, the loss and degradation of habitat and the on-going impacts of human activities to biological resources will contribute to the long-term reduction of animal and plant species, habitat and biological diversity; however, compliance with the CVMSHCP, MBTA and other applicable plant and wildlife conservation plans and requirements, will assure that impacts will be less then significant even in the long-term.

Water Resources

As discussed at length in Sections 2 and 3 of this EIR, the water management agencies of the City and Coachella Valley, including and especially Desert Water Agency (DWA) and Coachella Valley Water District (CVWD), have made significant strides in balance the demand for domestic water with supply. At this time, the water agencies have or soon will have established a balance between a dependable long-term water supply, including waters in storage and contracted for on-going delivery, and long-term demand. Historical overdraft of the groundwater aquifer has or soon will end and net recharge to these basins will incrementally increase water is storage in the coming years.

This EIR, as well as the General Plan Water Resources Sub-Element and other General Plan elements, address the current conditions of the Whitewater River Subbasin, which serves as the main groundwater repository for the Coachella Valley, including the General Plan planning area. Imported water from the Colorado River supplements the recharge of the Whitewater River Subbasin, which is also addressed through natural surface recharge and reclaimed wastewater. The water agencies continue to promote water conservation and have implemented water management strategies and measures that have increased water use efficiencies and reduced or eliminated overdraft.

The continued implementation of stringent water conservation methods and acquisition of additional sources of recharge are serving to alleviate groundwater overdraft conditions in the valley. The policies and programs of the proposed General Plan promote and support the conservative use of water resources for landscaping and domestic uses, and otherwise encourage the efficient use of our limited water resources. Therefore, the City and the water agencies that serve it are working together to ensure that the short-term use of water resources will not outstrip the long-term supply.

Energy Resources

As discussed in the Energy and Mineral Resources Sub-Element found in the Open Space and Conservation Element of the proposed General Plan, the City, CVAG and member jurisdictions, Riverside County, SCAG and various state agencies have enacted a wide range of initiatives to conserve energy and to transition to renewable sources of energy. While the impetus for this evolution has been induced to a large degree by the threats of global warming and climate change, there have also been other human and environmental health reasons that have driven this effort.

The proposed General Plan, including but not limited to the policies and programs set forth in the Energy and Mineral Resources Sub-Element, will help to ensure that the City does its part to secure an economically and environmentally sustainable energy future. The General Plan also points directly to the City's Climate Action Plan, Sustainability Plan and Green for Life program that further implement the City's conservation and renewable energy ethic. Therefore, the City, other local governments, CVAG, SCAG and the state are working together to ensure that the short-term use of energy resources will be economically and environmentally sustainable and that future energy use does not outstrip the long-term supply.

Air Resources and Greenhouse Gasses

As indicated in the discussion in Section 2 of this document, air quality affected by identified criteria pollutants, and emissions of climate-changing greenhouse gasses (GHGs), are both local and non-localized issues that are influenced by various emissions generated both locally and from areas outside the Coachella Valley. Continued growth and development in the City and the region are expected to increase the amount of pollutants emitted into

the valley's air basin. Increased traffic, urban development and use of electrical power and natural gas consumption will generate additional local and regional pollutants that will further degrade air quality. Increased local emissions will contribute to higher concentrations of reactive organic gases, oxides of nitrogen and particulates. The amount of locally produced ozone is expected to rise in the future, given that ideal conditions necessary for ozone generation occur in the Coachella Valley.

Oxides of nitrogen and reactive hydrocarbons are generated by the burning of natural gas and the continued use of gasoline and diesel fuels in vehicles and equipment. These pollutants degrade local air quality to a greater or lesser extent, as determined by the rates of dispersion. Fugitive dust emissions will increase with continued urban development; however, these increases are expected to be temporary as disturbed sites will be permanently stabilized with landscaping, structures and pavement. Although the proposed General Plan update includes goals, policies and programs intended to regulate emissions, impacts to air quality cannot be completely eliminated, at least not in the near to mid-term. The decrease in emissions is not expected to occur in the near future, unless transportation methods and combustion technology undergo extreme modifications.

In this regard, and as discussed above under Energy Resources, there is a concerted effort on all levels to move away from the use of fossil fuels for purposes of transportation, heating and cooling, electricity generation and other energy needs. State mandates to reduce the emission of GHGs also have the effect of reducing our reliance on fossil fuels and increasing the use of electricity generated by renewable sources, especially wind and solar. The City has taken a leadership role in this effort and the proposed General Plan includes a wide range of policies and programs that will facilitate the transition to a cleaner array of energy resources and a reduction if the emission of criteria pollutants and GHGs.

Visual Resources

The City values its scenic and visual resources, created by the exceptional mountain formations and vast expanses of low-lying desert lands. The City's unique environment is responsible for drawing visitors and new residents from all over the country. The continued development of the City in conformance with the proposed General Plan's various policies and programs will ensure that future development will have limited impacts to viewsheds with the City. The policies and programs of the proposed General Plan include appropriate development criteria and require reviews of proposed projects which may generate potential adverse impacts on scenic resources. The proposed General Plan also incorporates the preservation and application of elements of the desert landscape into urban design. Development projects within the General Plan planning area will be required to meet standards and regulations that limit impacts to scenic resources. Nonetheless, grading, clearing and other site disturbances, along with construction of roads and structures will all contribute to the long-term impacts to visual resources, which can be avoided, minimized and mitigated to levels that are less than significant with the implementation of the General Plan's policies and programs.

Cathedral City

City of Cathedral City General Plan Update

ENVIRONMENTAL IMPACT REPORT

8. ORGANIZATIONS, PERSONS AND DOCUMENTS CONSULTED

A. Project Proponent

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Cathedral City, CA 92234

B. Environmental/Planning Consultant

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42635 Melanie Place, Suite 101
Palm Desert, CA 92211

C. Engineering Consultant/Noise and Traffic

Urban Crossroads
260 E. Baker St. Suite 200
Costa Mesa, CA 92626

D. Air Quality Consultant

Terra Nova Planning & Research, Inc.
42635 Melanie Place, Suite 101
Palm Desert, CA 92211

E. Utilities

City of Cathedral City
Desert Water Agency
Burrtec Waste Industries, Inc.
Southern California Edison
Spectrum
The Gas Company
Frontier Communications

F. Public Agencies

City of Cathedral City
City of Palm Springs
California Office of Planning and Research
Caltrans
Riverside County Transportation Department
Riverside County Flood Control & Water Conservation District
Desert Water Agency
Coachella Valley Water District
Coachella Valley Association of Governments
Palm Springs Unified School District
South Coast Air Quality Management District
Riverside County Airport Land Use Commission
Regional Water Quality Control Board
Federal Aviation Administration

G. Documents

- 2003 Coachella Valley PM_{10} State Implementation Plan, South Coast Air Quality Management District. August 1, 2003.
- 2013 Integrated Energy Policy Report by California Energy Commission.
- 2015 Urban Water Management Plan (UWMP) for CVWD, Prepared by MWH in July 2016.
- 2015 Urban Water Management Plan (UWMP) for DWA, Prepared by Krieger and Stewart Engineering Consultants in June 2016.
- 2015 Urban Water Management Plan by CVWD.
- 2016 California Fire Code by California Building Standards Commission.
- 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), Southern California Association of Governments, December 2015.
- 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy, Southern California Association of Governments, 2016.

- 2018 Strategic Fire Plan for California By State Board of Forestry and Fire Protection, California Department of Forestry and Fire Protection (CAL FIRE) (August 22, 2018).
- Agua Caliente Band of Cahuilla Indians Tribal Habitat Conservation Plan, August 2010.
- Article 2.5 of Chapter 2 of Division 1 of the California Streets & Highways Code, California Office of Legislative Counsel. Retrieved February 6, 2019.
- Biological Assessment for the Cathedral City General Plan Update, Terra Nova Planning and Research, Inc., 2001.
- California Airport Land Use Planning Handbook (Caltrans 2011).
- California Department of Conservation, Division of Land Resource Protection, 2012.
- California Energy Demand 2012-2022 Final Forecast Document by California Energy Commission (Table 1-1, Final Forecasts of Statewide Electricity Demand).
- California Farmland Conversion Report 2015, prepared by the California Natural Resources Agency/Department of Conservation. September 2015.
- California Greenhouse Gas Emission Inventory: 2000-2016, California Environmental Protection Agency Air Resources Board, 2018.
- California Sensitive Natural Communities listing, California Department of Fish and Wildlife, October 15, 2018.
- California Water Plan Update 2005 ,(Chapter 11 Colorado River Hydrologic Region, Volume 3).
- Cathedral City Economic Report, 2016, Lowe Institute of Political Economy and Inland Empire Center for Economics and Public Policy, Claremont McKenna College, November 1, 2016.
- Cathedral City General Plan Update Noise and Vibration Impact Analysis, prepared by Urban Crossroads, Inc. April 23, 2019.
- Cathedral City General Plan Update Transportation Analysis, Cathedral City, California, Urban Crossroads, Inc., February 13, 2019.
- Cathedral City General Plan, adopted July 31, 2002 and amended June 24, 2009.
- City/County Population and Housing Estimates (Report E-5), January 1, 2018, California Department of Finance.
- Coachella Valley Association of Governments Active Transportation Plan, Michael Baker International, 2016.
- Coachella Valley Final Water Management Plan - Table 4-7 (2002) by CVWD.
- Coachella Valley Water Management Plan 2010 Update Final Report, prepared by MWH and Water Consult, January 2012.

- Coachella Valley Water Management Plan, Coachella Valley Water District, November 2002.
- Commercial Zero Net Energy Action Plan Draft, prepared by California Public Utilities Commission in 2017.
- Complexities of the San Andreas Fault near San Gorgonio Pass: Implications for large earthquakes, by Yule and Sieh (2003).
- County of Riverside Climate Action Plan, Riverside County Planning Department. July 17, 2018.
- County of Riverside General Plan (2004).
- Cultural Resources Technical Report – Cathedral City General Plan, CRM Tech, July 2, 2001.
- Desert Community Energy - 2018 Integrated Resource Plan, prepared in August 2018.
- Engineer's Report on Water Supply and Replenishment Assessment for Year 2018-2019 - Mission Creek, West Whitewater River, and East Whitewater River Subbasin Areas of Benefit by CVWD.
- Engineer's Report on Water Supply and Replenishment Assessment Lower Whitewater River Subbasin Area of Benefit for 2012-2013 by CVWD.
- Engineer's Report on Water Supply and Replenishment Assessment for the Lower Whitewater River Subbasin Area of Benefit for Year 2013-2014 by CVWD.
- Engineer's Report on Water Supply and Replenishment Assessment for the Mission Creek Subbasin Area of Benefit, West Whitewater River Subbasin Area of Benefit and East Whitewater River Subbasin Area of Benefit for Year 2017-2018 by CVWD.
- Extreme climate events counteract the effects of climate and land-use changes in Alpine Treelines, Journal of applied ecology vol. 54,1 (2016): 39-50. Barros, Ceres et al.
- Fault Activity Map of California and Adjacent Areas with Locations and Ages of Recent Volcanic Eruptions: California Division of Mines and Geology, by Jennings, C.W. 1994., Geologic Data Map No.6, Scale 1:750,000.
- Fault Evaluation Program, 1978 Area (Peninsular Ranges-Salton Trough Region) Summary Report: by Hart, E.W., Smith, D.P., and Saul, R.B. 1979 published in California Division of Mines and Geology - Open File Report 79-10.
- Final 2016 Air Quality Management Plan, prepared by South Coast Air Quality Management District, March 2017.
- Final Recirculated Coachella Valley Multiple Species Habitat Conservation Plan and Natural Community Conservation Plan, September 2007.
- Geology of the Desert Hot Springs-Upper Coachella Valley area, California, California Division of Mines and Geology Special Report 94, 50 (1968). by Richard J. Proctor.
- Geology of the Salton Trough, by David L. Alles (2011).

- Global Positioning System constraints on fault slip rates in southern California and northern Baja, Mexico by Bennett, R. A., Rodi, W., & Reilinger, R. E. (1996). Journal of Geophysical Research: Solid Earth, 101(B10), 21943-21960.
- Groundwater Replenishment and Assessment Program for the West Whitewater River Basin, Mission Creek Subbasin, and Garnet Hill Subbasin Areas of Benefit, by DWA (2018-2019 Engineer's Report).
- Historic Resource Context & Historic Resource Program, Cathedral City, California, Kaplan Chen Kaplan, November 21, 2017.
- Holocene geologic slip rate for the Banning strand of the southern San Andreas Fault, southern California by Gold et al., 2015.
- Land Subsidence, Groundwater Levels, and Geology in the Coachella Valley, California, 1993–2010 by Michelle Sneed, Justin T. Brandt, and Mike Solt, 2014.
- Mean Annual Isohyets based on combined data of 1879-79 season to 1953-54 (from 1961 U.S. A.C.E. Report) and 1935-60 (From 1973-74 Riverside CO F.C.D. Report)
- Municipal Code Chapter 8.12, Section 8.12.010 - California Fire Code adopted with Amendments.
- National Environmental Policy Act of 1969 (Section 101 42 USC Section 4331 [b] [2]) .
- Natural Hazard Mapping, Analysis, and Mitigation: a Technical Background Report in Support of the Safety Element of the New Riverside County 2000 General Plan, prepared by Earth Consultants International, August 2000.
- New Residential Zero Net Energy Action Plan 2015-2020 Executive Summary, prepared by California Public Utilities Commission (Energy Division) and California Energy Commission (Efficiency Division).
- Paleontological Resources Sensitivity, Riverside County General Plan 2015 (Figure OS-8)
- Population Estimates for Cities, Counties, and the State (Report E-1), California Department of Finance, January 1, 2018 and 2019.
- Population Estimates for Cities, Counties, and the State (Report E-1), January 1, 2018 and 2019, California Department of Finance.
- Revised Transportation Energy Demand Forecast, 2018-2030, by California Energy Commission (February 2018).
- Riverside County Airport Land Use Compatibility Plan Policy Document by Riverside County Airport Land Use Commission (2005).
- Riverside County Important Farmland 2008, prepared by California Department of Conservation, Division of Land Resource Protection, prepared September 2009.
- San Andreas, Garlock, And Big Pine Faults, California: A Study of the Character, History, and Tectonic Significance of Their Displacements by Hill, M. L., & Dibblee, T. W. (1953) published in the Geological Society of America Bulletin, 64(4), 443-458.

- Schedule of Standard Tribal Planning Fees (accessed January 2019), Agua Caliente Band of Cahuilla Indians.
- Soil Survey of Riverside County, California, Coachella Valley Area, U.S. Department of Agriculture Soil Conservation Service, September 1980.
- Summary of County Agricultural Commissioner's Reports, Gross Values by Commodity Groups, California 1995-2000.
- Tectonic geomorphology of the San Andreas fault zone in the southern Indio Hills, Coachella Valley, California by Keller, E. A., Bonkowski, M. S., Korsch, R. J., & Shlemon, R. J. (1982). Geological Society of America Bulletin, 93(1), 46-56.
- The North Palm Springs, California, earthquake sequence of July 1986 by Jones, L. M., L. K. Hutton, D. D. Given, and C. R. Allen, Published in 1986.
- Water Quality Report by CVWD (2016-2017 Annual Review Report).
- Whitewater River Region Stormwater Management Plan, prepared in June 2014 and Revised in January 2015.

H. Correspondence

- Person communication, Palm Springs Unified School District Representative - Ruth Burgett (Facilities Accountant), April 2019.
- Personal communication, Dan Ruiz, P.E., Manager, Engineering Division, Coachella Valley Water District. April 16, 2019.
- Written communication to Robert Rodriguez, City of Cathedral City, from Patti Garcia-Plotkin, Director, Tribal Historic Preservation Office, Agua Caliente Band of Cahuilla Indians, regarding Edom Hill Compost Facility CUP No. 15-005, June 26, 2018.

I. Websites

- CAL FIRE Website – About CAL FIRE, http://cdfdata.fire.ca.gov/fire_er/fpp_planning_cafireplan, Accessed March 2019.
- California Energy Commission Website - California Geothermal Energy Statistics & Data, https://www.energy.ca.gov/almanac/renewables_data/geothermal/, Accessed April 2019.
- California Environmental Protection Agency – State Water Resources Control Board Website, https://www.waterboards.ca.gov/ust/electronic_submittal/about.shtml, Accessed January 2019.
- California State Auditor Report 2007-119, https://www.bsa.ca.gov/reports/summary/2007-119, Accessed January 2019.

- CalRecycle Jurisdiction Disposal by Facility, https://www2.calrecycle.ca.gov/LGCentral/DisposalReporting/Destination/DisposalByFacility, Accessed March 2019.
- Cathedral City Fire Department 2019-2023 Strategic Plan. http://www.cathedralcitypolice.com/2016-2020-strategic-plan/
- Cathedral City Police Department Strategic Plan 2016-2020. http://www.cathedralcitypolice.com/2016-2020-strategic-plan/, Accessed March 2019.
- Cathedral City Website - Household Hazardous Waste Facility, http://www.cathedralcity.gov/services/recycling-refuse-energy-programs/household-hazardous-waste-facility, Accessed January 2019.
- Cathedral City Website - http://www.cathedralcity.gov/services/recycling-refuse-energy-programs/bulky-item-large-item-collection-program, Accessed May 2019.
- Chapter 49 Requirements for Wildland-Urban Interface Fire Areas, https://up.codes/viewer/california/ca-fire-code-2016/chapter/49/requirements-for-wildland-urban-interface-fire-areas#49, Accessed March 2019.
- Clean Air Act Permitting for Greenhouse Gases, United States Environmental Protection Agency. Website. www.epa.gov. Accessed June 2019.
- Coachella Valley Water District 2014 Crop Report. http://www.cvwd.org/ArchiveCenter/ViewFile/Item/705
- Cortese and EnviroStor Online database, https://www.envirostor.dtsc.ca.gov/public/search?cmd=search&reporttype=CORTESE&site_type=CSITES,FUDS&status=ACT,BKLG,COM&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST+%28CORTESE%29, Accessed January 2019.
- County of Riverside Website - 2019 Riverside County Household Hazardous Waste (HHW) Collection, https://www.rcwaste.org/Portals/0/Files/HW/HHWflyer.PDF, Accessed May 2019.
- County of Riverside Website - Livability and the Environment, https://countyofriverside.us/AbouttheCounty/StrategicPlan/LivabilityandtheEnvironment.aspx, Accessed January 2019.
- County of Riverside Website - Palm Springs Permanent HHW Facility, https://www.rcwaste.org/hhw/palmsprings, Accessed May 2019.
- Desert Community Energy Website, https://desertcommunityenergy.org/about/, Accessed May 2019.
- EPA Green Book Designated Non-attainment Areas for All Criteria Pollutants, Website. www.epa.gov/green-book. Accessed January 2019.
- Estimated Development Fees (accessed January 2019), City of Cathedral City. http://www.cathedralcity.gov/services/building-and-safety/estimated-development-fees

- Fire Hazard Severity Zone Online GIS Map by CAL FIRE, http://egis.fire.ca.gov/FHSZ/, Accessed March 2019.
- Geological Gems of California State Parks - Geogem Note 53 (Colorado Desert Geomorphic Province), https://www.parks.ca.gov/pages/734/files/GeoGem%20Note%2053%20Colorado%20Desert%20Geomorphic%20Province.pdf, Accessed in March 2019.
- Geotracker database, California State Water Resources Control Board, www.geotracker.waterboards.ca.gov, accessed May 2019.
- Guide to the 2016 California Green Building Standards Code Nonresidential by CALGreen, https://www.documents.dgs.ca.gov/bsc/CALGreen/CALGreen-Guide-2016-FINAL.pdf, Accessed January 2019.
- Mount San Jacinto State Park and Wilderness, https://www.parks.ca.gov/pages/636/files/MtSanJacintoSPWeb2016.pdf, Accessed March 2019.
- Office of the State Fire Marshal Website, https://osfm.fire.ca.gov, Accessed March 2019.
- Palm Springs International Airport Monthly Passenger Activity Report, 2018. http://www.palmspringsca.gov/home/showdocument?id=64236
- Resource Conservation and Recovery Act (RCRA) and Federal Facilities on United States Environmental Protection Agency Website, https://www.epa.gov/enforcement/resource-conservation-and-recovery-act-rcra-and-federal-facilities, Accessed January 2019.
- Riverside County Congestion Management Program, 2011. http://www.rctcdev.info/uploads/media_items/congestionmanagementprogram.original.pdf
- Riverside County Department of Environmental Health - Hazardous Materials (HazMat), https://www.rivcoeh.org/HazMat, Accessed January 2019.
- Riverside County Department of Waste Resources Website, https://www.rcwaste.org/business/planning/ciwmp, Accessed May 2019.
- Riverside County Department of Waste Resources, http://www.rcwaste.org, Accessed April 2019.
- Riverside County Unit Strategic Fire Management Plan (2017), http://cdfdata.fire.ca.gov/pub/fireplan/fpupload/fpppdf1601.pdf, Accessed March 2019.
- Riverside Countywide Integrated Waste Management Plan – Five-Year Review Report (2003).
- SCAQMD Rule Book, South Coast Air Quality Management District. Website. https://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book. Accessed January 2019.
- Senate Bill No. 1241, http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201120120SB1241, Accessed March 2019.

- United States Environmental Protection Agency Website - Categories of Hazardous Waste Generators, https://www.epa.gov/hwgenerators/categories-hazardous-waste-generators, Accessed January 2019.
- United States Wind Turbine Database - USGS Energy Resources, July 2018 https://eerscmap.usgs.gov/uswtdb/viewer/#14.75/33.88239/-116.46539, Accessed April 2019.
- USFWS National Wetlands Inventory, www.fws.gov/wetlands/Data/Mapper.html, accessed January 2019.
- VOLUME 1: IRWM/SWR Plan Chapters 2018 Coachella Valley Integrated Regional Water Management & Stormwater Resource Plan – Public Draft August 2018, http://www.cvrwmg.org/docs/2018_08_20_CVRWMG-2018IRWM-SWRPlanPublicDraft_150844.pdf, Accessed November 2018.
- www.coachellavalleylink.com , accessed April 2019.