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.

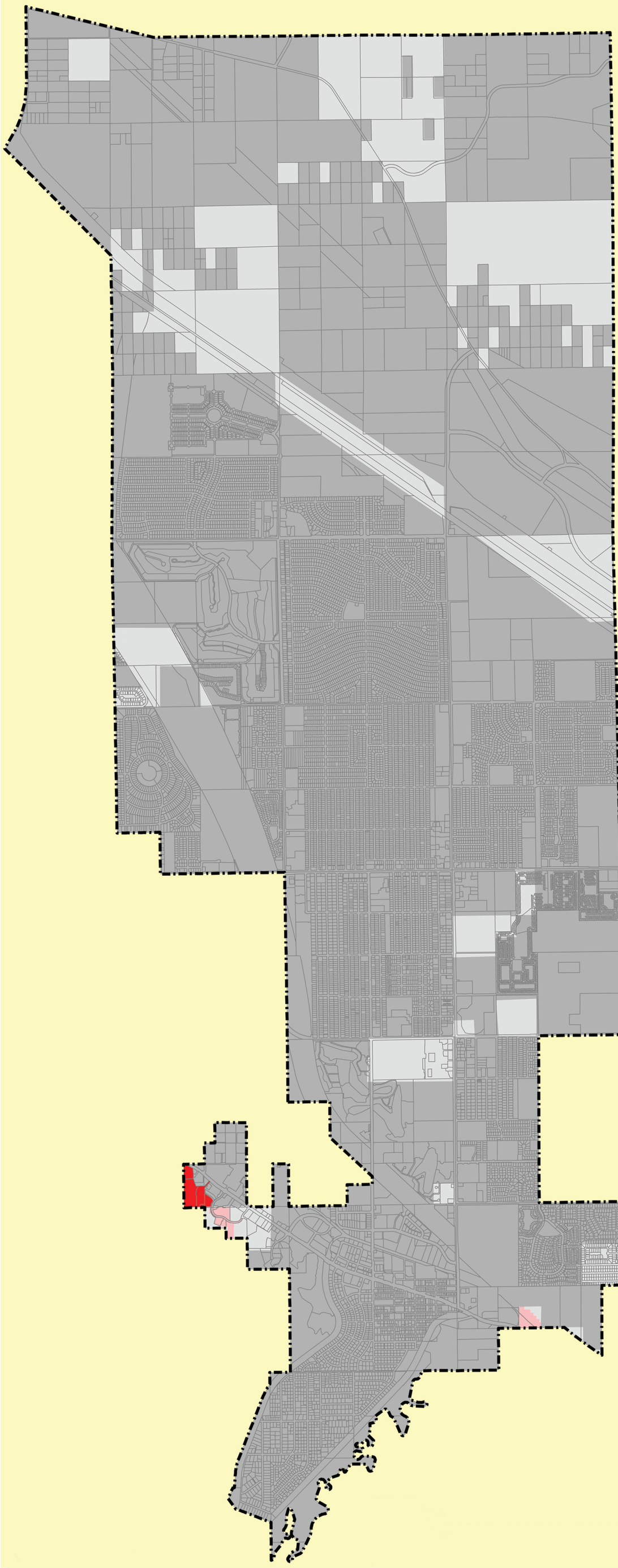
Wildfire hazards to a developed community are highest in areas near the wildland-urban interface (WUI). As noted above, CALFIRE designates areas as very high fire hazard severity (VHFHS) zones or non-VHFHS zones.[25] A small southwestern portion and an equally small area in the southeast in the vicinity 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.

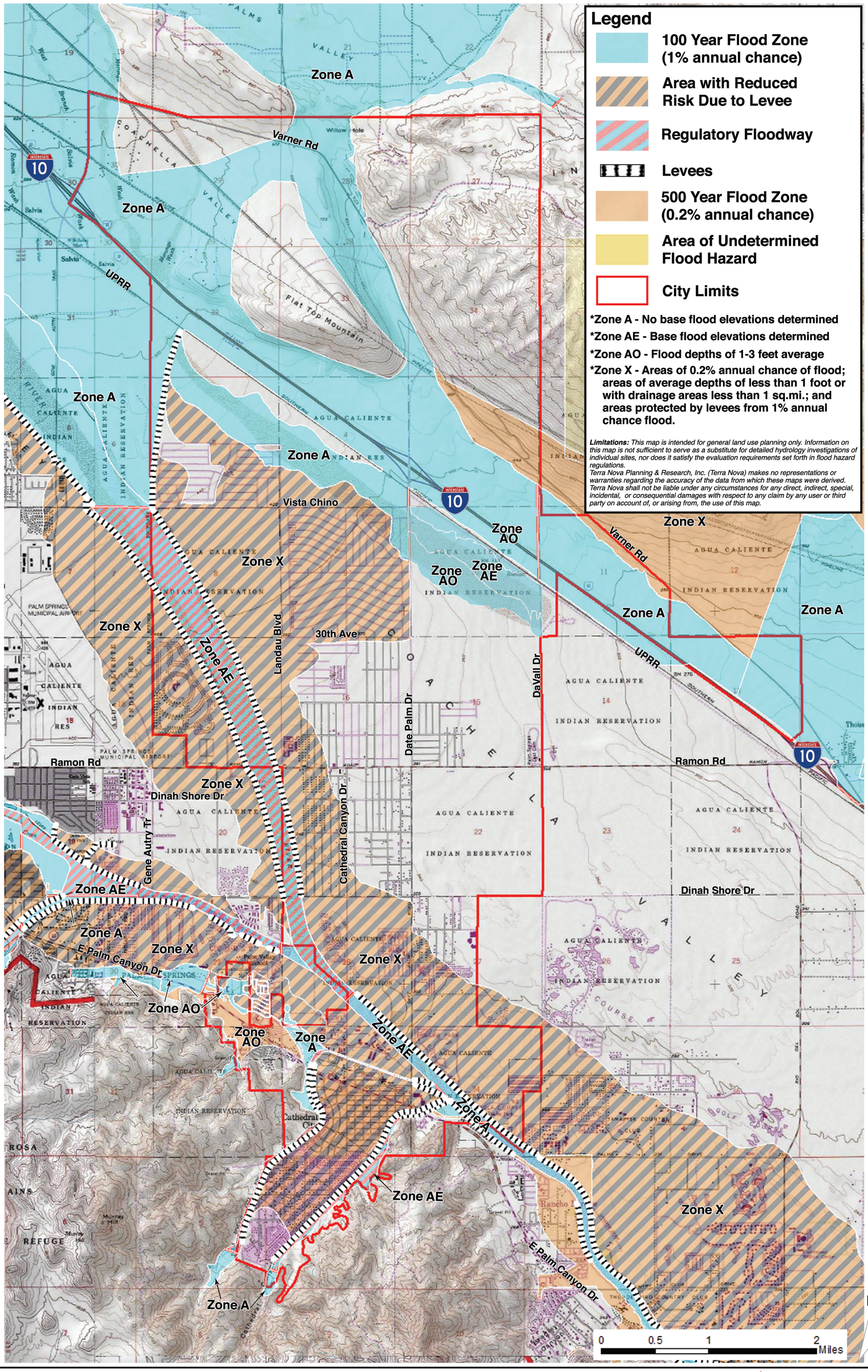
In 2008, the City initiated the Cove Improvement District Sewer and Street Project, a two-phase project that connected Cove residences to the sewer system. All Cove residences are now connected to the sewer system.

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

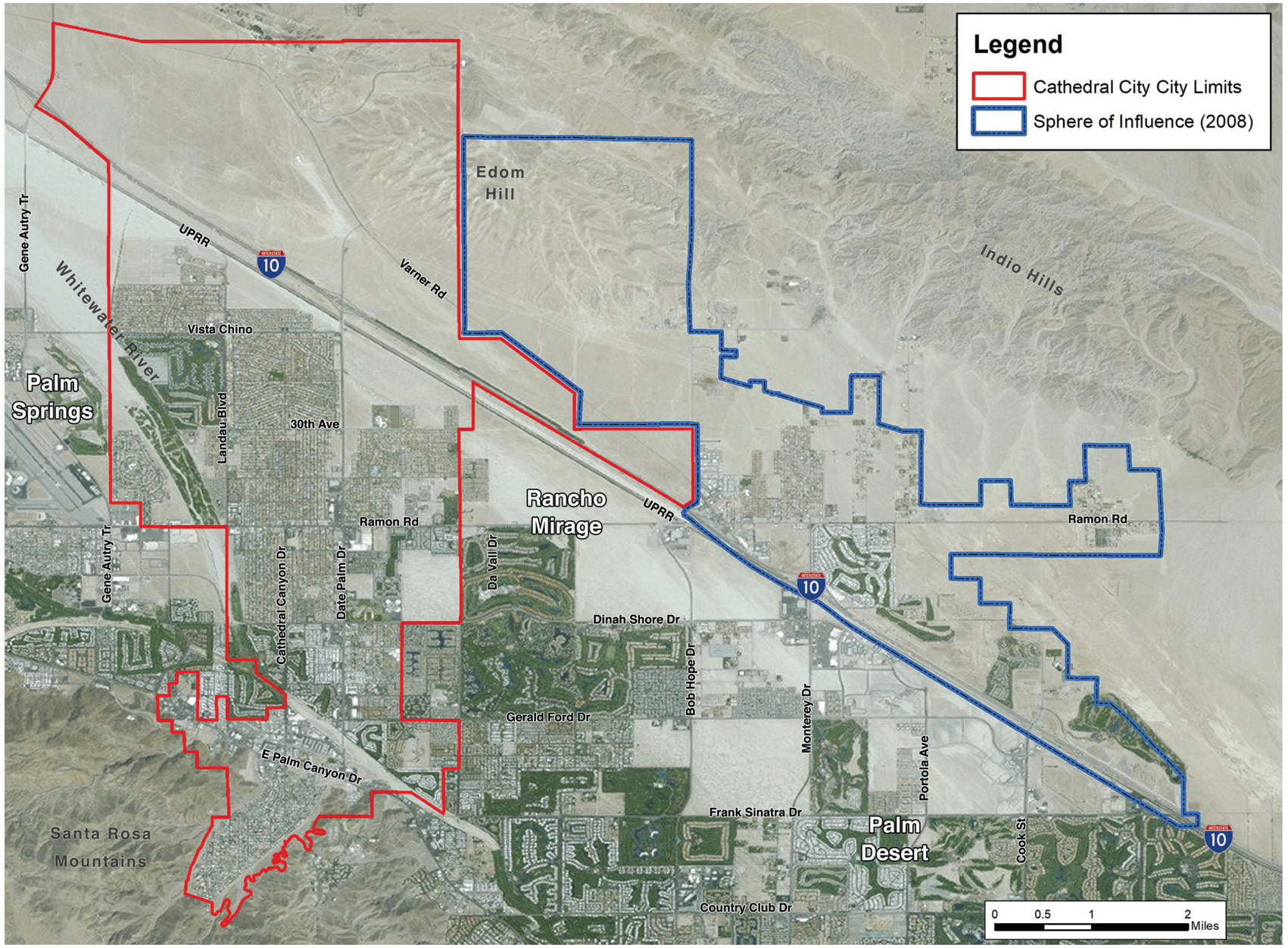
The City's corporate limits, which are the Proposed Project planning area, encompass 14,557± acres or about 22.7 square miles. These lands extend from the foothills of the Santa Rosa Mountains on the south to the western slopes of Edom Hill and the Indio Hills to the north. The City limits are a long 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

06.26.19

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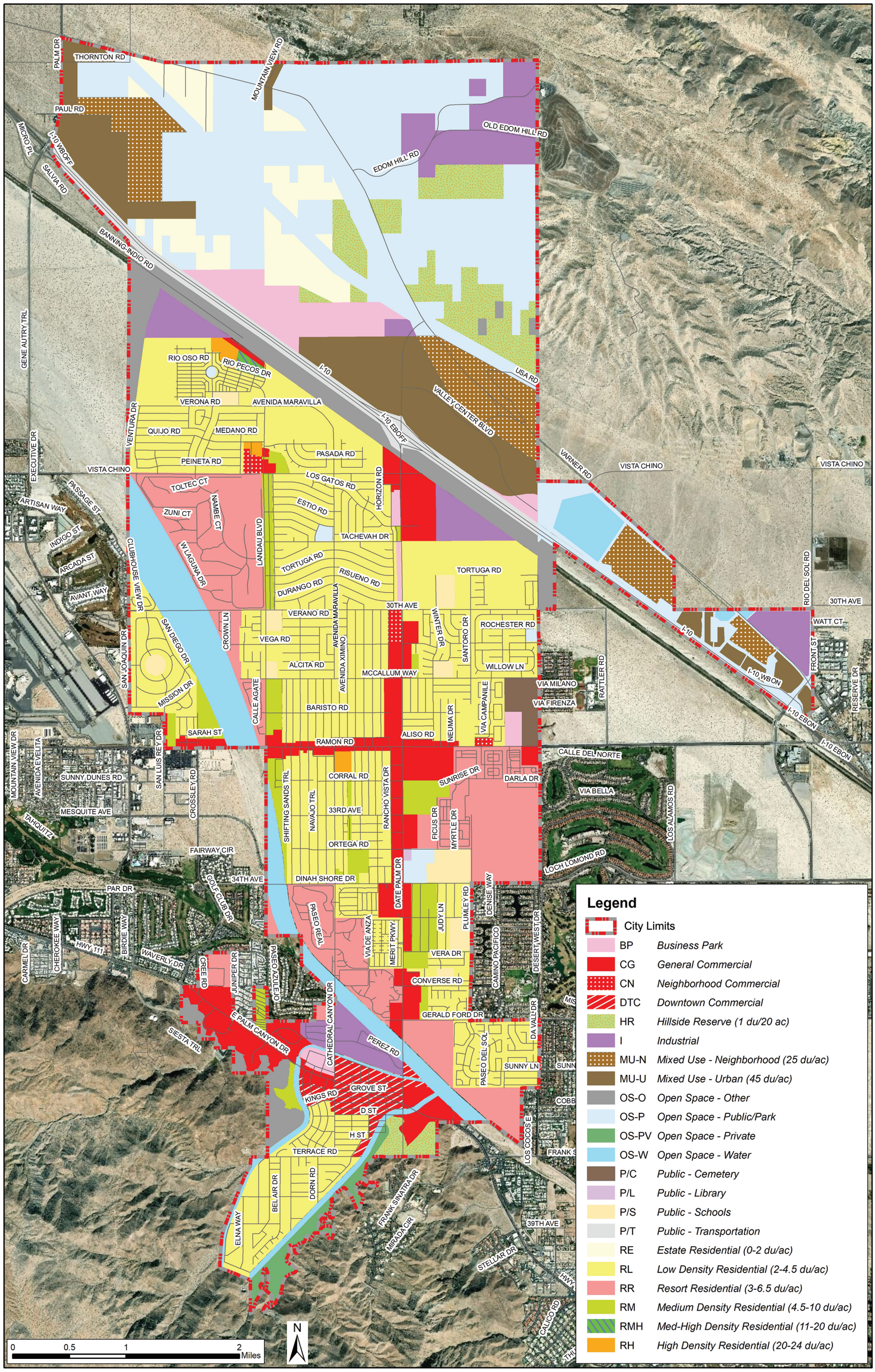
City of Cathedral City General Plan EIR
City Limits and Sphere of Influence
Cathedral City, California

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

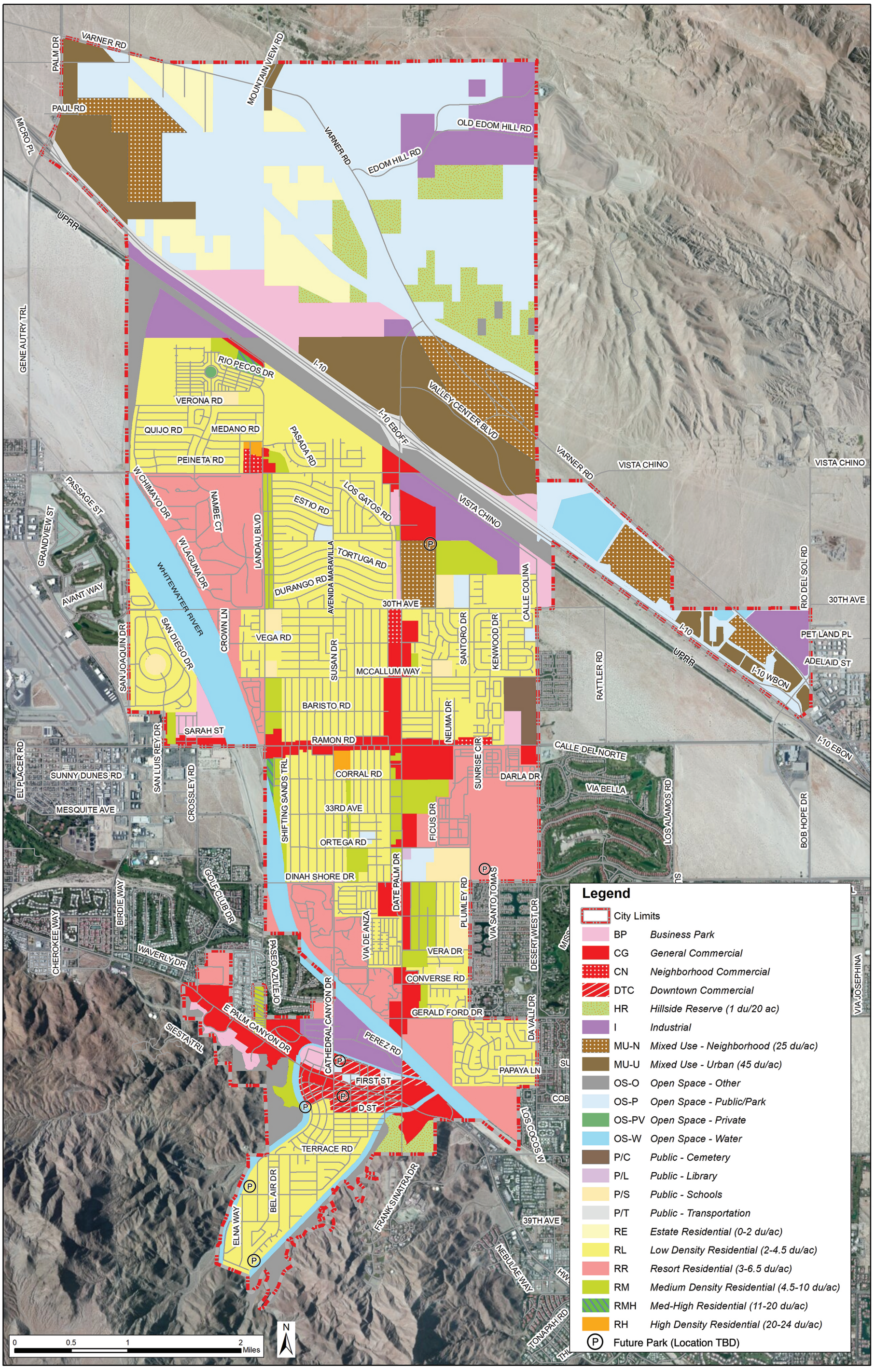
Cathedral City

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

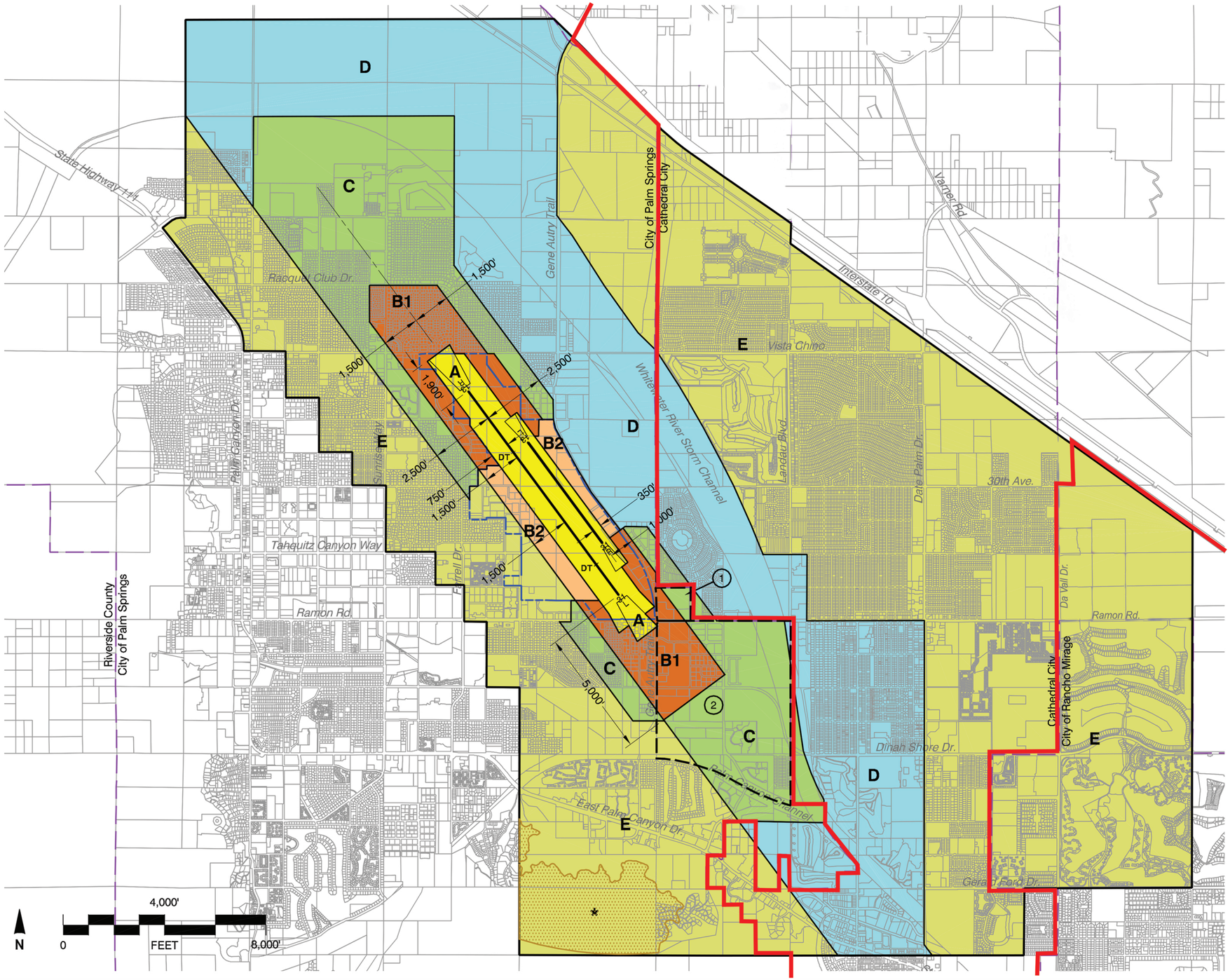
Exhibit

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

08.29.18 Source: Riverside County Airport Land Use Compatibility Plan Policy Document, March 2005

TERRA NOVA® PLANNING & RESEARCH, INC.

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

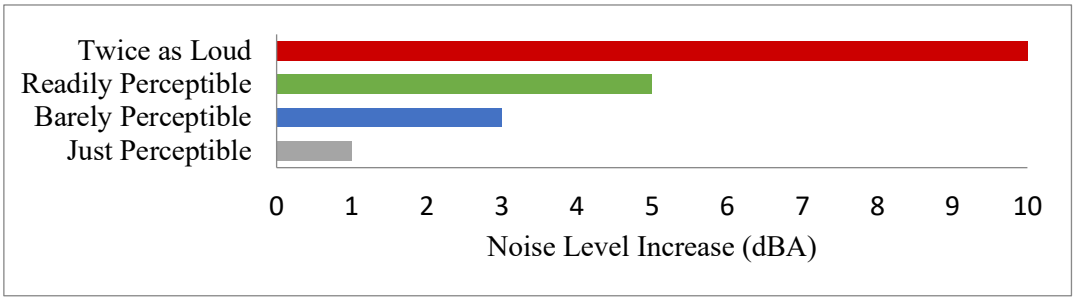
This section of the EIR describes existing conditions with regard to the local noise environment within the City planning area and analyzes the potential impacts of the Proposed Project to surrounding sensitive receptors. Continued buildout of the City will take place adjacent to noise-sensitive land 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.

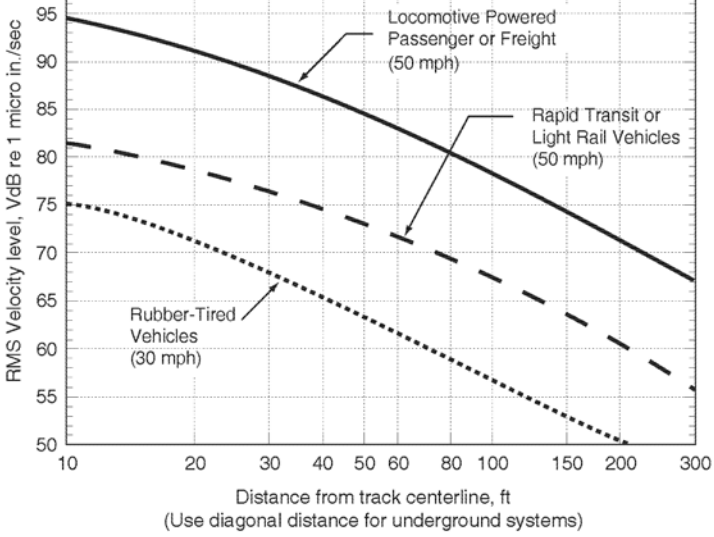
As shown on Exhibit 2.12-3, the 60 dBA CNEL boundary of Palm Springs International Airport under existing (2002) conditions partially overlaps with the City boundaries east of San Joaquin Drive and north of Ramon Road. Mapping of future (2025) noise conditions indicate that the 60 dBA CNEL noise level 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.

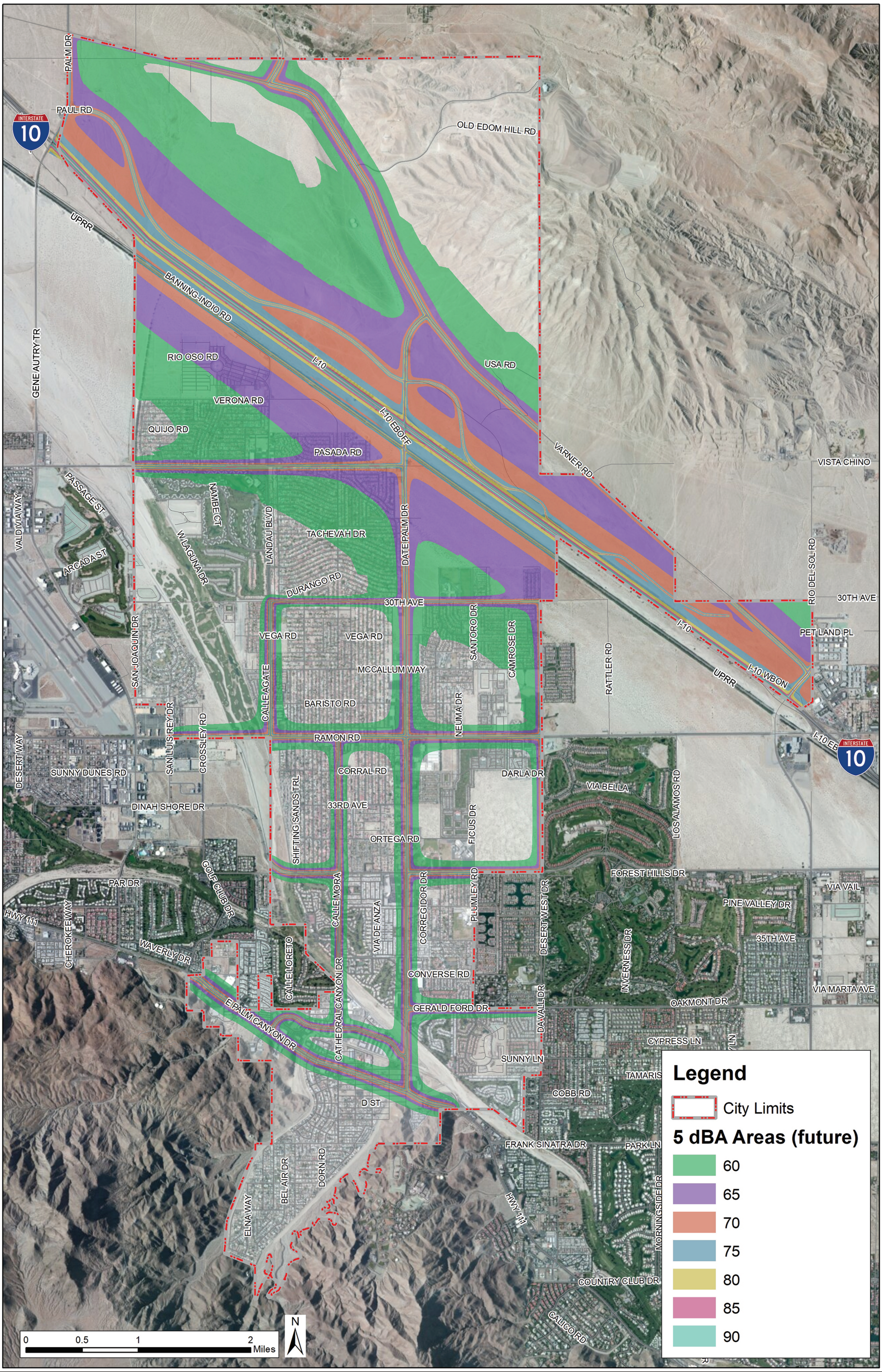
Rail Vibration Analysis

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.

Chart 2.12-2 Reference Ground Surface Vibration Curves





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.

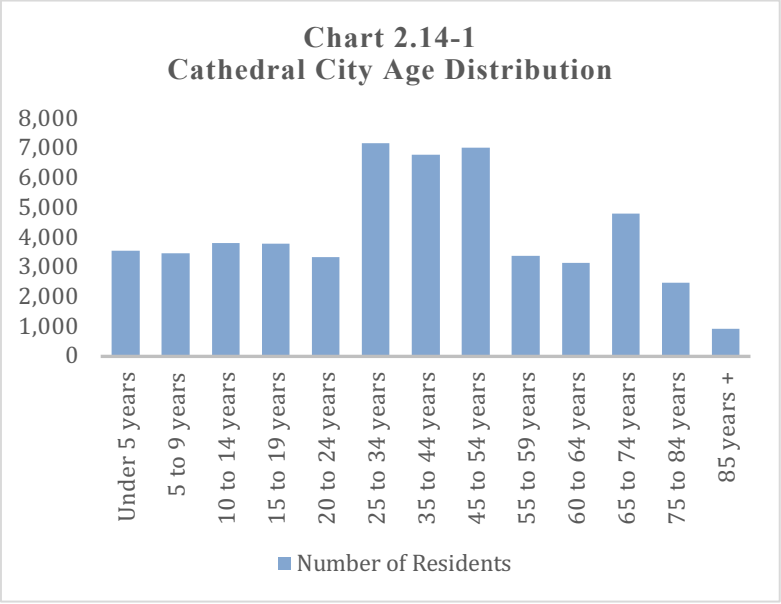
2.14.5 Existing Conditions

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.

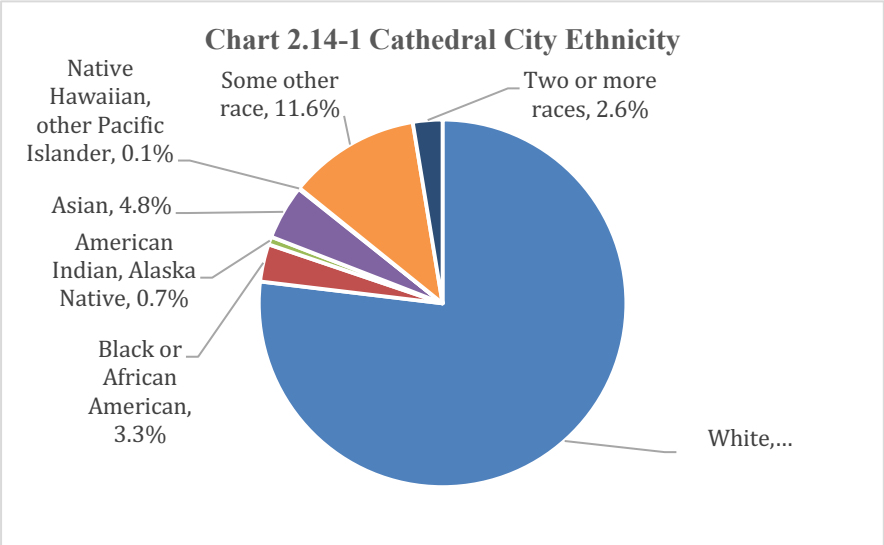


Table 2.14-1
Cathedral City Housing Characteristics

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

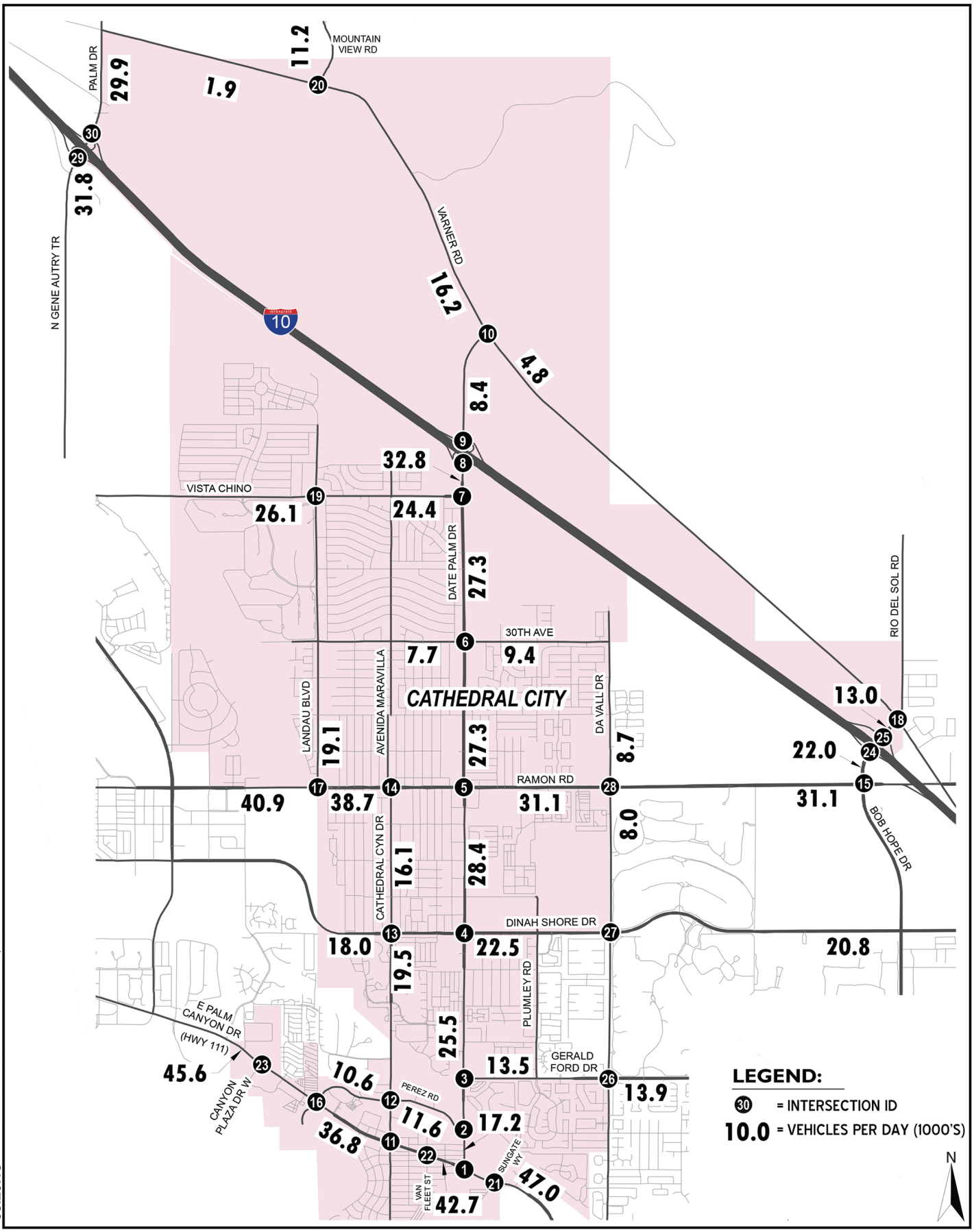
Peak Hour Intersection Analysis Locations (30)	
1 Date Palm/Hwy 111	16 Perez Rd./Hwy 111
2 Date Palm/Perez Rd.	17 Landau Blvd./Ramon Rd.
3 Date Palm/Gerald Ford Dr.	18 Bob Hope Dr./Varner Rd.
4 Date Palm/Dinah Shore Dr.	19 Landau Blvd./Vista Chino
5 Date Palm/Ramon Rd.	20 Mountain View Rd./Varner Rd.
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

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TERRA NOVA®
PLANNING & RESEARCH, INC.

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

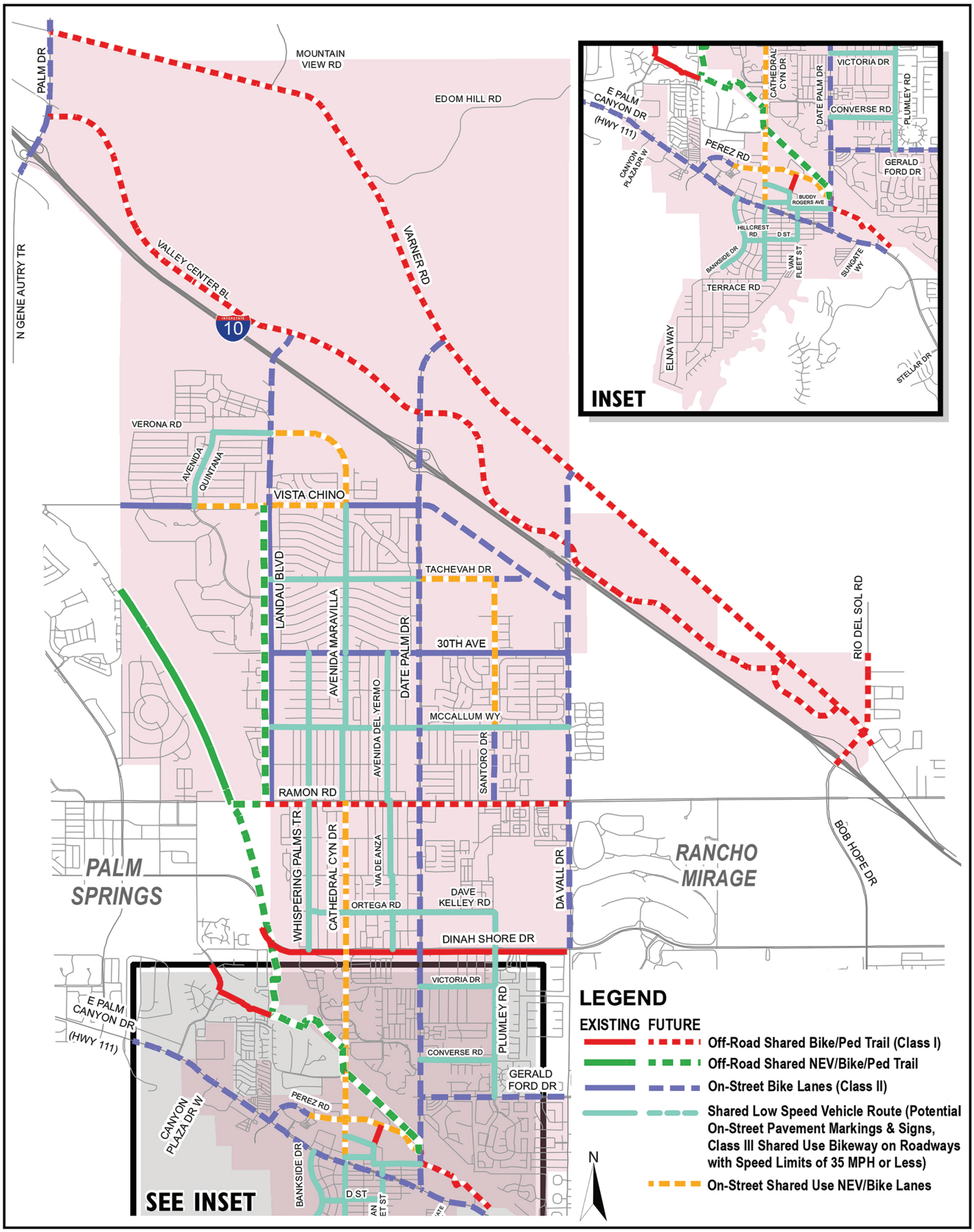
In Cathedral City, rail lines operated by Union Pacific Railroad (UPRR) are located just south of, and parallel to, Interstate-10. The UPRR is a major transcontinental railway carrying extensive freight operations as well as Amtrak passenger trains. This facility carries an average of between 40 and 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

12.20.18

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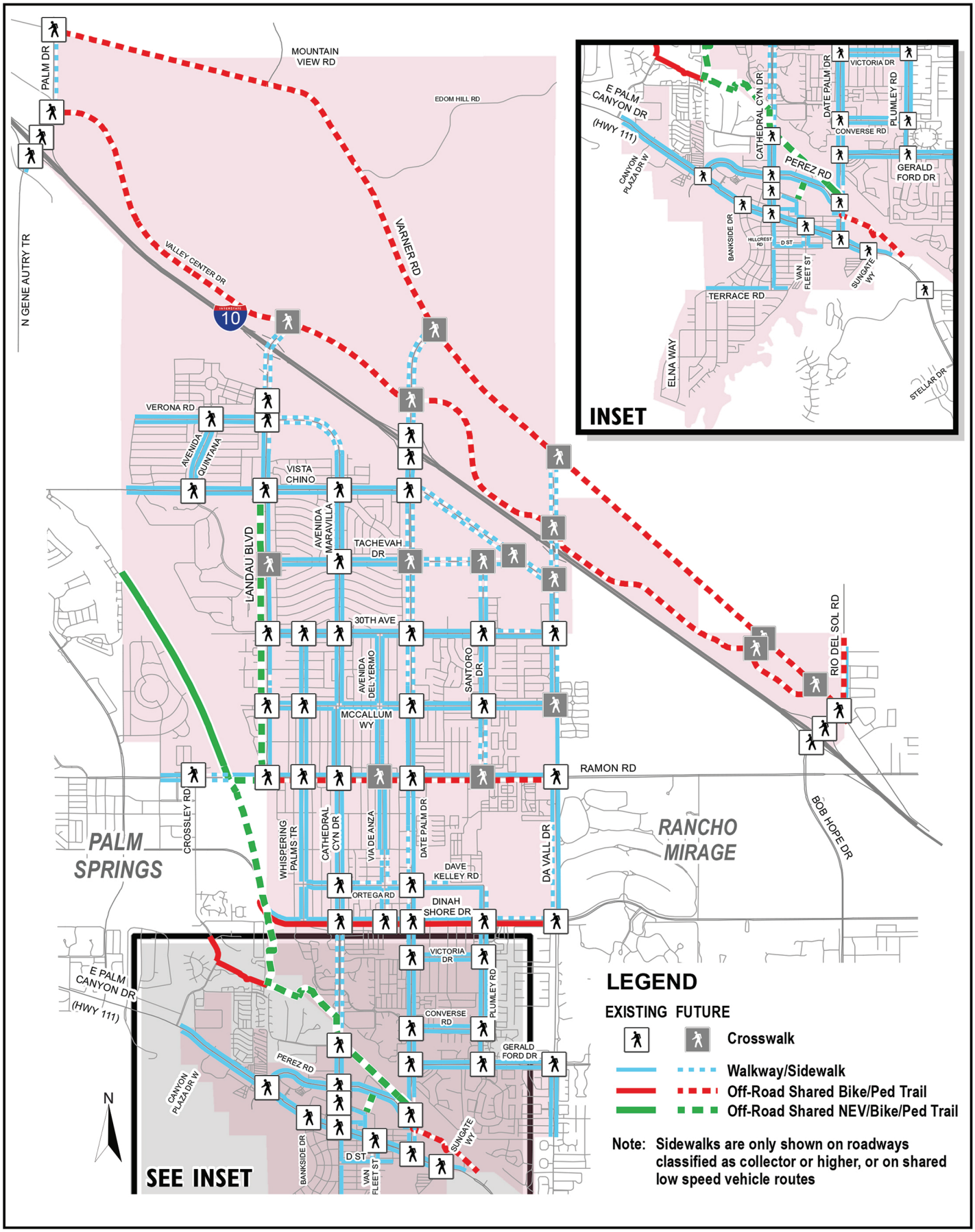
City of Cathedral City General Plan EIR
Existing and Future Multi-modal Facilities
Cathedral City, California

Cathedral City

Exhibit
2.16-2



05.03.19 Source: Urban Crossroads, 2019

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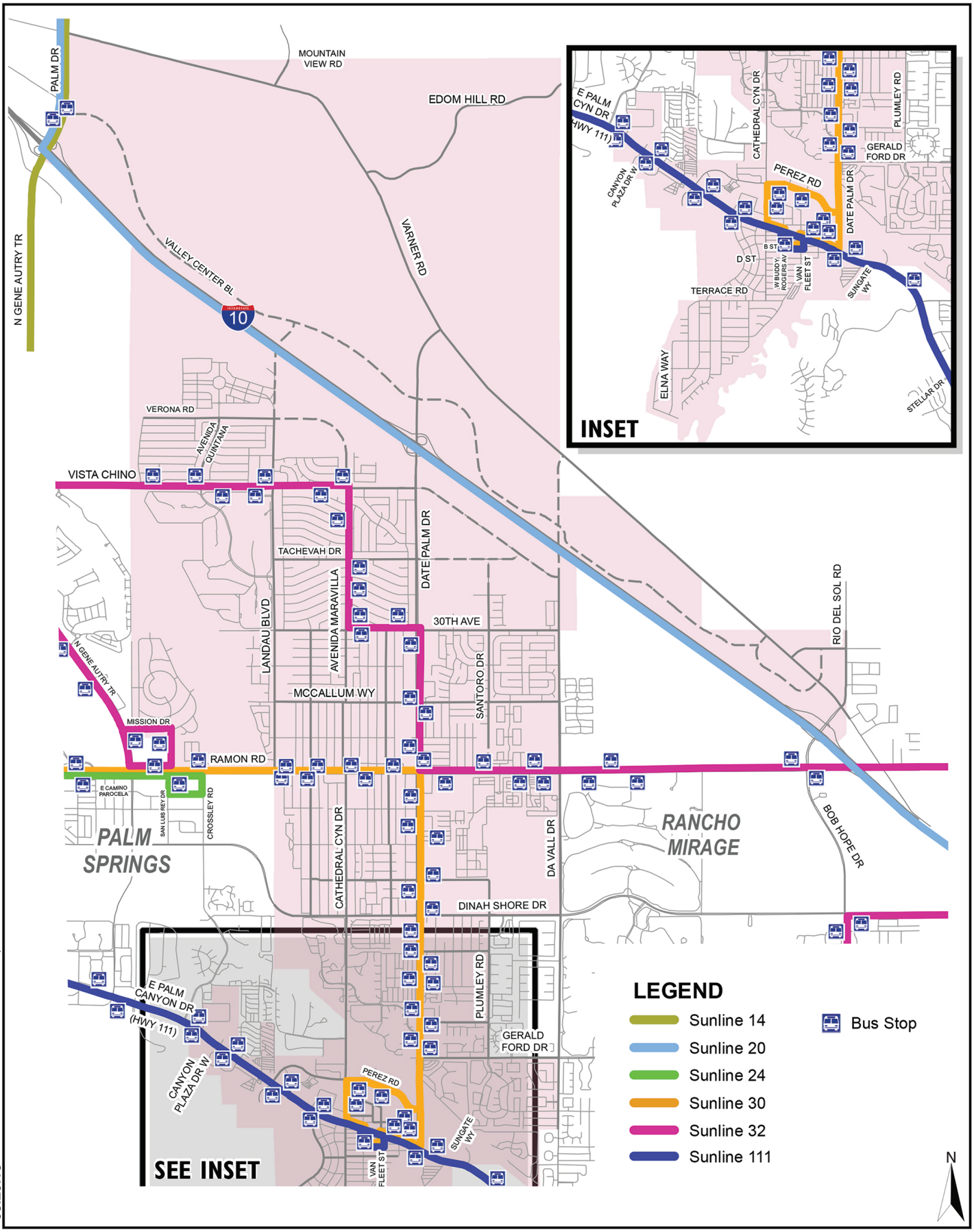
City of Cathedral City General Plan EIR
Existing and Future Pedestrian Facilities
Cathedral City, California

Cathedral City

Exhibit
2.16-3



08.29.18 Source: Urban Crossroads, 2018

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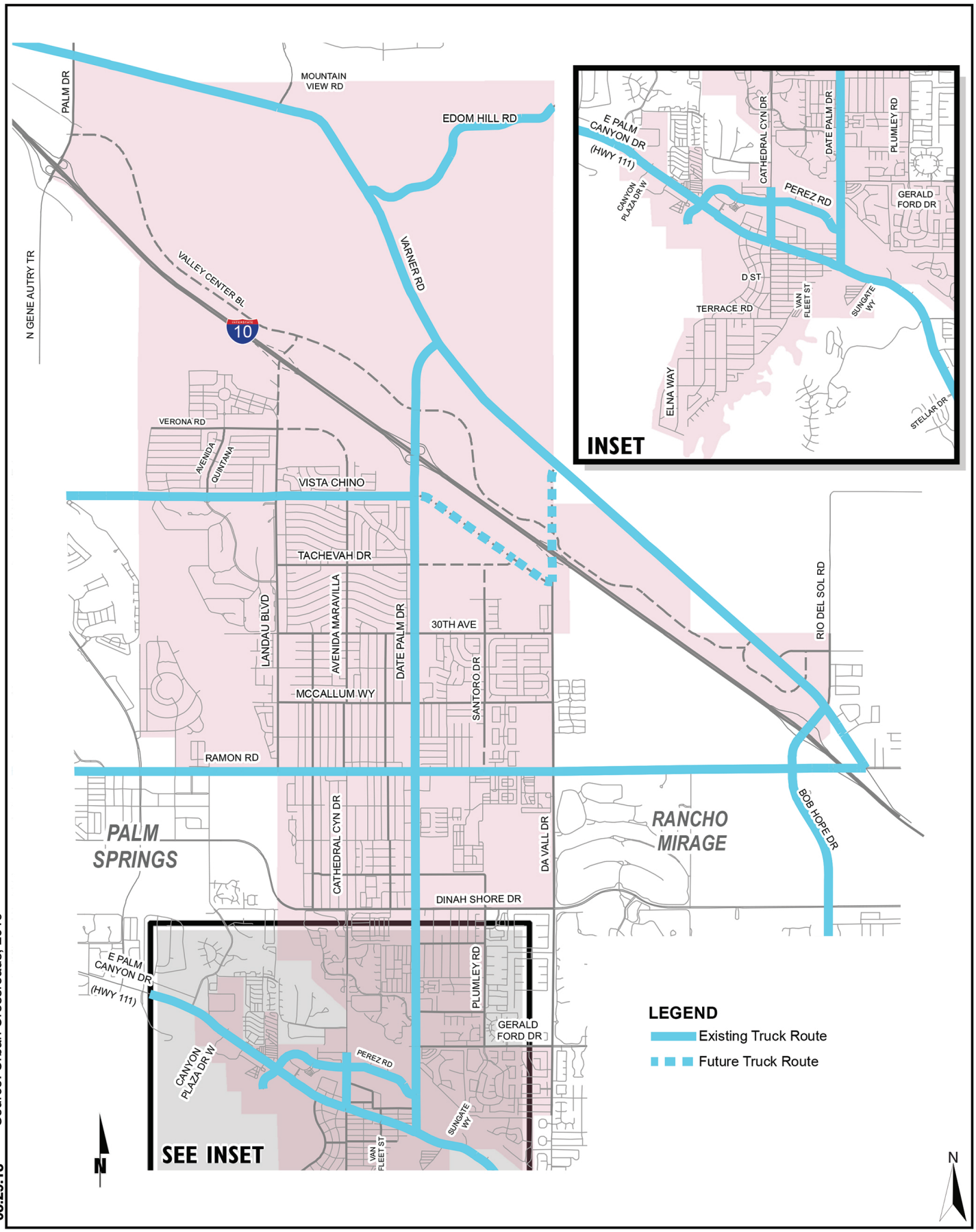
City of Cathedral City General Plan EIR
Sunline Transit Routes and Bus Stops (2018)
Cathedral City, California

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

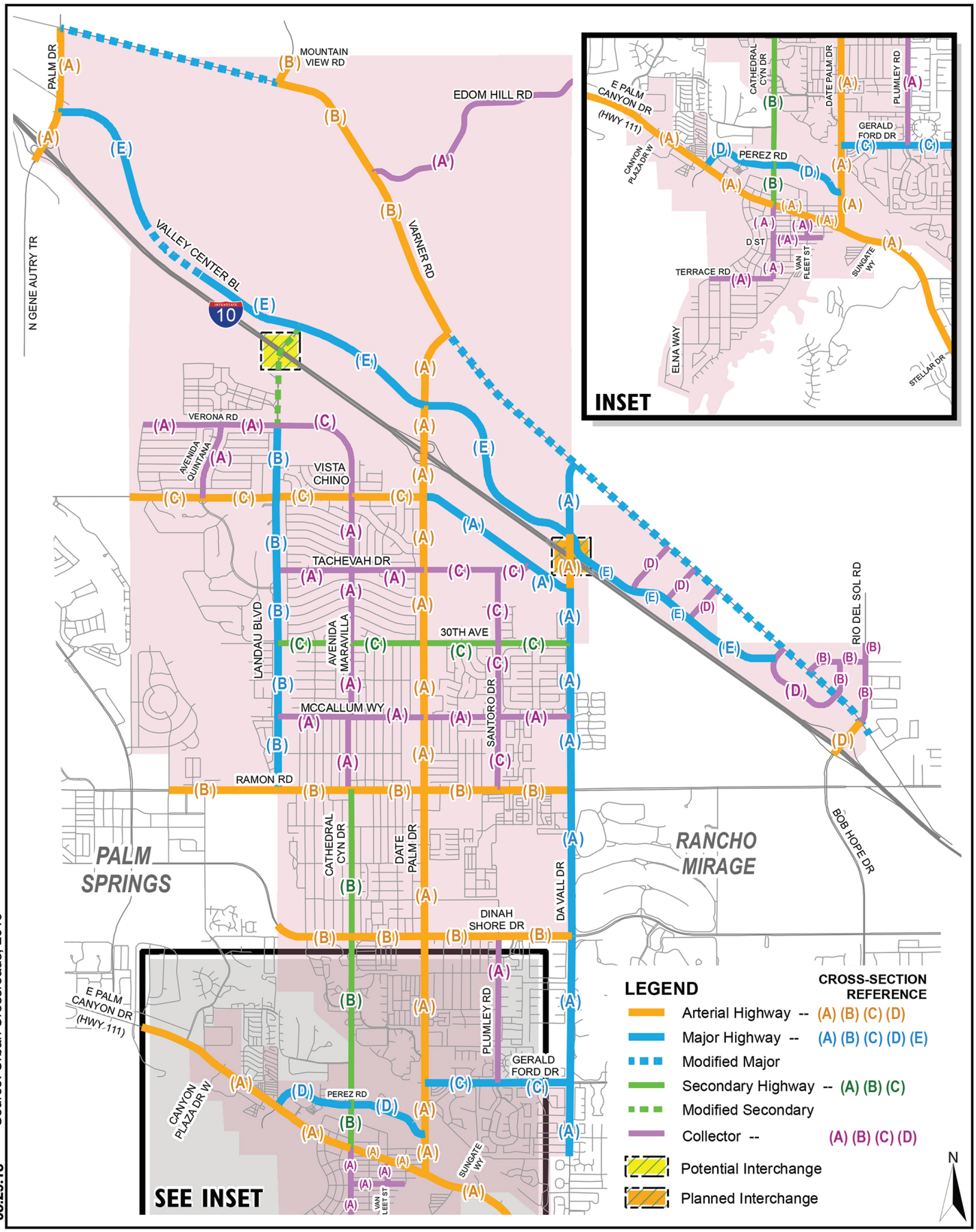
Source: Table 5-2, "Cathedral City General Plan Update Transportation Analysis, Cathedral City, California," Urban Crossroads, February 13, 2019. See Appendix E of this EIR.

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

08.29.18

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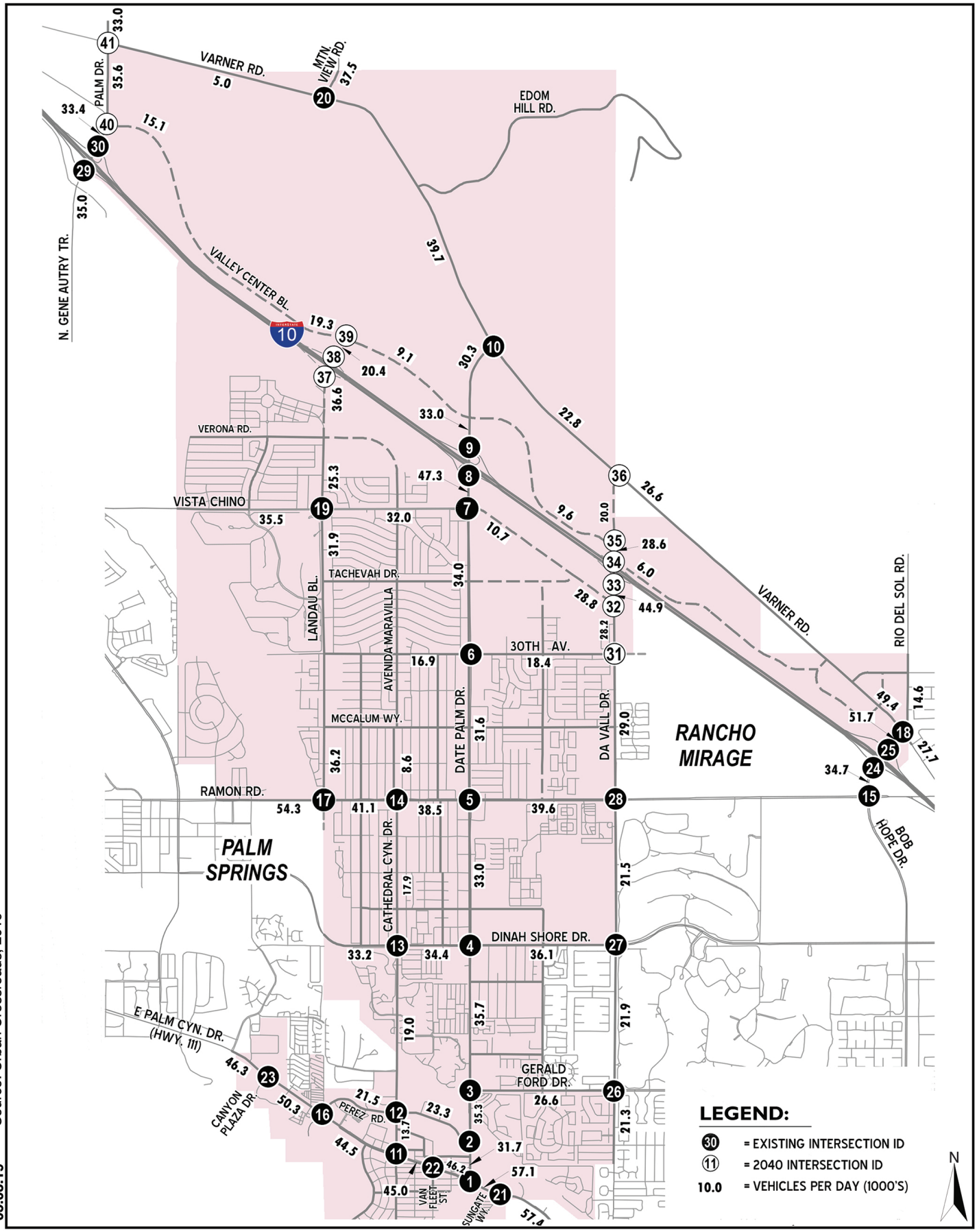
City of Cathedral City General Plan EIR
Master Roadway Classifications
Cathedral City, California

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.