2023-2027

LOCAL HAZARD MITIGATION PLAN

CITY OF PALM SPRINGS-PART I-ANNEX
LOCAL HAZARD MITIGATION PLAN

Prepared by: Daniel DeSelms

CITY OF PALM SPRINGS ANNEX

2023-2027

CONTACT INFORMATION

CITY OF PALM SPRINGS

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PLAN ADOPTION/RESOLUTION

The City of Palm Springs will submit the Local Hazard Mitigation Plan (LHMP) to Riverside County Emergency Management Department (EMD) who will forward it to the California Governor's Office of Emergency Services (CAL OES) for review prior to being submitted to the Federal Emergency Management Agency (FEMA). In addition, the City will wait to receive an "Approval Pending Adoption" letter from FEMA before taking the plan to the City Council for adoption. Upon approval, the City of Palm Springs will insert the signed resolution after this page.

EXECUTIVE SUMMARY

The purpose of the City of Palm Springs Local Hazard Mitigation Plan (LHMP) Annex is to identify the City's hazards, review and assess past disaster occurrences, estimate the probability of future occurrences, and set goals to mitigate potential risks to reduce or eliminate long-term risk to people and property from natural, human-caused, and technological hazards.

The City of Palm Springs Office of Emergency Management coordinated the development and update to the City's 2017 Local Hazard Mitigation Plan (LHMP) Annex to the Riverside County LHMP to address hazard and mitigation considerations unique to the City of Palm Springs.

The plan was prepared pursuant to the requirements of the Disaster Mitigation Act of 2000 to achieve eligibility and potentially secure mitigation funding through Federal Emergency Management Agency (FEMA) Flood Mitigation Assistance, Pre-Disaster Mitigation, and Hazard Mitigation Grant Programs.

The City of Palm Springs LHMP Annex integrates with the Riverside County Operational Area (OA) Multi-Jurisdictional LHMP and provides a consistent approach to community mitigation efforts.

The City's planning process followed a methodology presented by FEMA and Cal OES which included conducting meetings with the Operational Area Planning Committee (OAPC) coordinated by Riverside County Emergency Management Department (EMD) comprised of participating Federal, State and local jurisdictions agencies, special districts, school districts, non-profit communities, universities, businesses, tribes, and the general public.

The plan identifies vulnerabilities, provides recommendations for prioritized mitigation actions, evaluates resources, identifies mitigation shortcomings, provides future mitigation planning, and maintenance of the existing plan.

The plan will be adopted and implemented upon FEMA approval.

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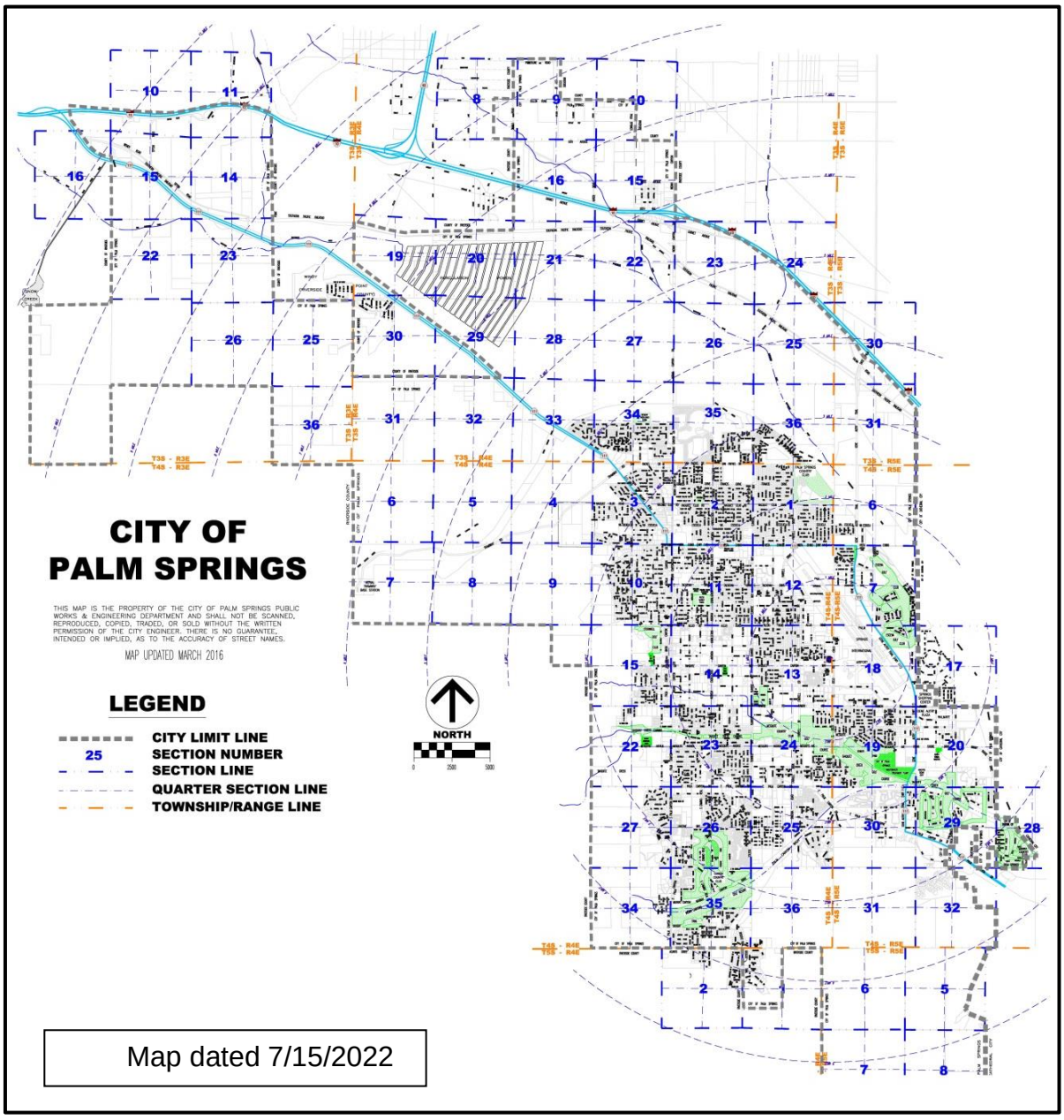
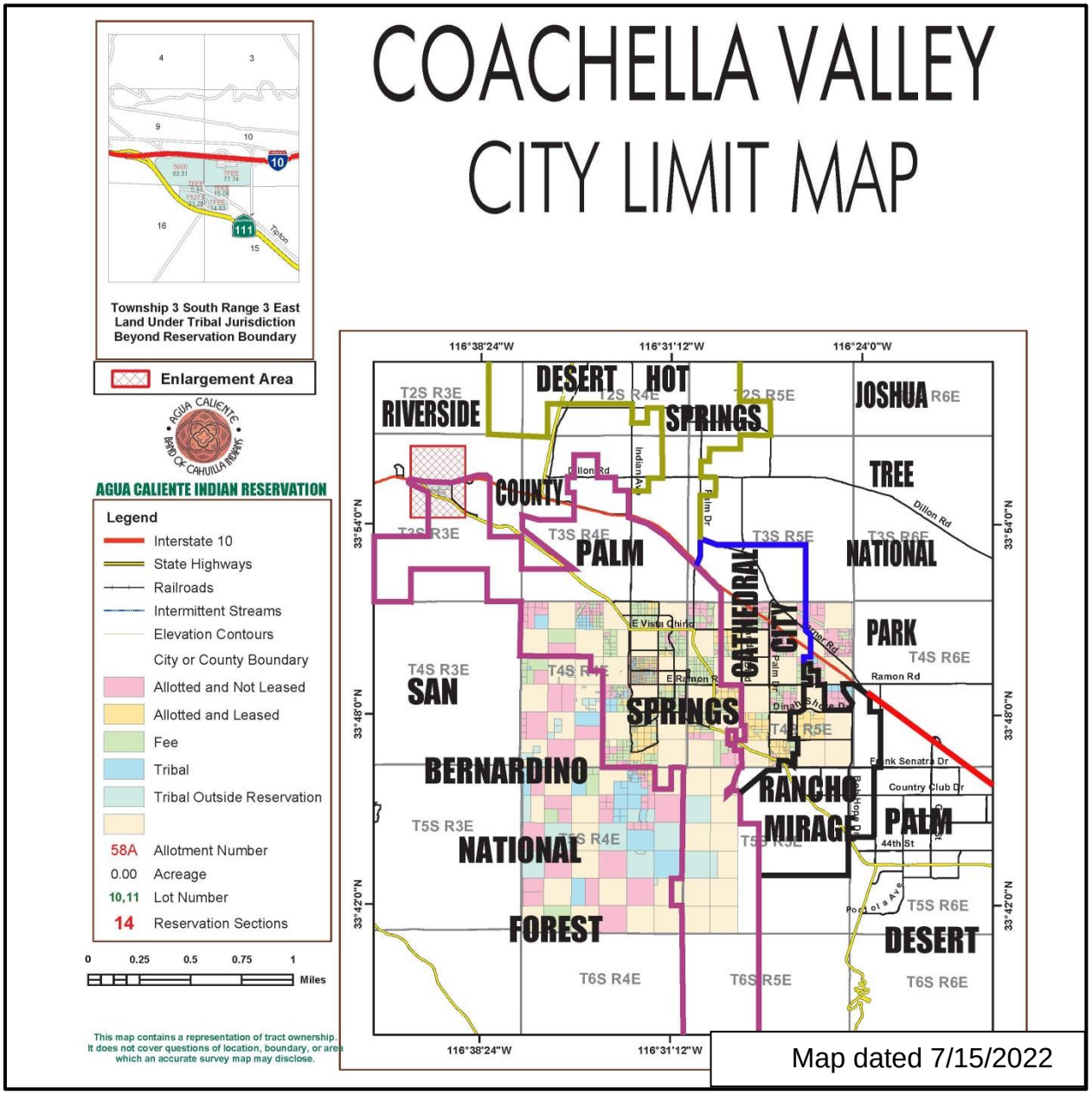


Figure 1.1.2 - Map of Jurisdictions/Tribe Adjacent to the City of Palm Springs



1.2 GEOGRAPHY AND CLIMATE DESCRIPTION

The City of Palm Springs is a charter city in Riverside County located in the State of California. The City is nestled at the base of the San Jacinto and Santa Rosa Mountains, approximately 60 miles east of Riverside. Serving as the "gateway city" for the Coachella Valley, the City of Palm Springs comprises an incorporated area that encompasses 60,440 acres, or nearly 95 square miles. Palm Springs

has a residential population of approximately 45,019[1] and an estimated seasonal population of over a 100,000 residents and guests.

The City of Palm Springs is located within Riverside County Region VI Southern Administrative Region of the California Office of Emergency Services Agency (Cal OES). Primary access to the City is provided by Interstate 10 and California State Highway 111; north–south access to the City is provided via Indian Canyon Drive and Gene Autry Trail. The Southern Pacific Railroad and Kinder Morgan pipeline run through the Coachella Valley and specifically through the City's northern boundary.

1.3 BRIEF HISTORY

The area encompassing the present City of Palm Springs was discovered centuries ago by the Agua Caliente Band of Cahuilla Indians, who established their village around the natural hot mineral springs (current site of the Spa Resort Casino) known for their medicinal and healing capabilities. Throughout the 19th century, many explorers, colonizers, and soldiers came through the desert, but it wasn't until 1853 that United States Topographical Engineers described the combination of palm trees and warm springs they encountered as "Palm Springs." The name became more commonly used several years later.

In 1877, the Southern Pacific Railroad completed its line through the desert to the Pacific Ocean. A Congressional policy established that every old section of land for 10 miles on either side if the track become the property of the railroad. Early development in Palm Springs was associated with attempts to establish agricultural activity in the area and in the southern portions of the Coachella Valley. In the 1920s, the region became a retreat for successful business and movie personalities, who took advantage of the warm weather, the remote location, and the hot water spas. The tourist and resort community of Palm Springs developed over the following decades and dramatically changed the character and economy of the Coachella Valley. In 1938, the City of Palm Springs was officially incorporated.

In the 1950s, about 3000 sections of land were transferred to the Agua Caliente Band of Cahuilla Indians which created the checkerboard pattern. The checkerboard pattern is divided into Indian and non-Indian property holdings, based upon a grid pattern of square-mile sections of alternating ownerships. Indian land which has been subdivided into sections, half sections, and sometimes

[1] "Quick Facts." *United State Census Bureau.* Web. May 19, 2022. https://www.census.gov/quickfacts/palmspringscitycalifornia

even smaller areas—is controlled by the Tribal Council or by individual allottees of the Agua Caliente Band of Cahuilla Indians. Over time, this checkerboard land-ownership pattern has led to inconsistent patterns of development since the majority of development has occurred on non-Indian and non-Tribal owned lands.

The City has one hospital and the only trauma center for the Coachella Valley, Desert Regional Medical Center. The Medical Center is a 385-bed full service acute care facility that includes a Level II trauma center. There are four public full service elementary schools, one middle school, one high school, and one alternative school within the City of Palm Springs that are administered by the Palm Springs Unified School District. The City has a regional airport (Palm Springs International Airport), numerous large and small hotels, shopping centers, and commercial/industrial zones. Interstate 10 and State Highway 111 traverse the City as well as several main arterial roadways.

The City operates its own police and fire departments and also relies on local volunteer organizations for assistance in emergency response, communications, and other necessary emergency services.

1.4 ECONOMY DESCRIPTION

Palm Springs is comprised of both a resort city and year-round residences. Palm Springs has always embraced its reputation as a world class resort, holding such titles as “America’s premier desert resort city,” and “America’s Resort port.” The City currently is host to over 2 million visitors annually. Palm Springs maintains the largest number of hotel rooms in the Coachella Valley with over 15,000 rooms with some dating back to 1926. The City government is dependent on sales tax, property tax, and transient occupancy tax as revenue sources. 55% percent of available jobs within Palm Springs are categorized within three employment sectors: retail, entertainment, health care and other services, and government and local services. In contrast, manufacturing and transportation represent only 9% of jobs within the City. Employment is projected to increase from approximately 18,673 jobs in 2020 to 22,050 jobs by the year 2025.

Downtown serves as the functional, economic, and psychological heart of Palm Springs. It is a heavily visited area of town, has a collection of outstanding architecture and urban design features, and has a concentration of popular restaurants and stores. Community events such as Village Fest, cultural amenities such as the Village Green Heritage Center the Palm Springs Art Museum, and visitor-serving uses such as the Convention Center and Spa Resort Casino bring thousands of visitors to downtown annually.

The Convention Center serves as a major center of business and tourist activity within the City. Providing approximately 261,000 square feet of conference facilities, the Convention Center generates large numbers of conference attendees who support nearby hotel and convention-related businesses and who often extend their stays to take advantage of the recreational activities that Palm Springs has to offer. The City is also home to the Palm Springs Aerial Tram, the Palm Springs Air Museum, and Wet 'n' Wild Palm Springs Water Park, which are geared toward family recreation and entertainment.

The City has a limited amount of industrial uses, the majority of which are located along the I-10 corridor or adjacent to the airport. These job centers are characterized by low-intensity industrial development consisting primarily of administrative, wholesaling, light manufacturing, and industrial uses typically permitted within business park environments. Portions of the City north of I-10 contain wind energy facilities, commercial uses, light and medium intensity industrial uses, and a modern natural-gas-fueled power plant. Wind turbine generators create significant amounts of clean renewable energy, which benefits Palm Springs and the entire Coachella Valley.

The Palm Springs International Airport serves as the primary air transportation access to the Coachella Valley communities in a county which has been one of the fastest growing in the nation. Located on over 940 acres of land on the eastern edge of the City, the airport not only serves as a major transportation and tourist hub, but is also an asset to the City's economic development.

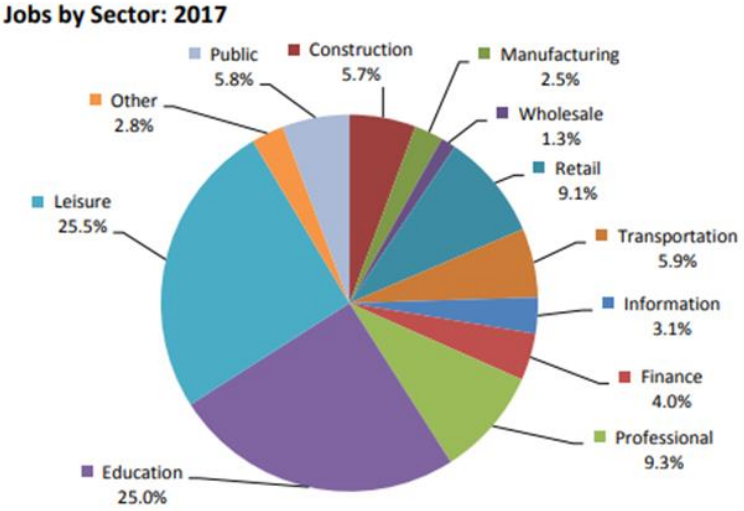
Bounded approximately by Ramon Road, Calle Encilia, Alejo Road and Belardo Road, the Central Business District (CBD) designation allows for a mix of commercial, residential, and office uses at a higher concentration, density, and intensity than in other areas of the City. The CBD serves as the main activity center and cultural core of the community and, as such, theatres, museums, retail, and other entertainment venues are encouraged here.

1.4.1 – Major Employers in Palm Springs

Riverside County Economic Development Agency records show the major employers in the City to be:

Employer	Number of employees
Agua Caliente Band of Cahuilla Indians	2,400
Palm Springs Unified School District	2,000
Desert Regional Medical Center	2,000

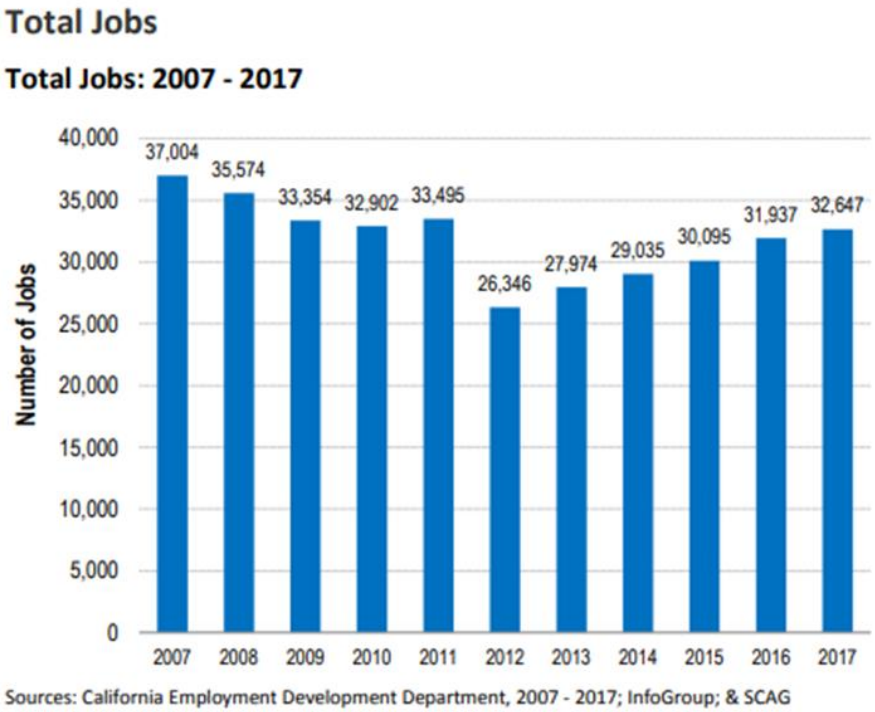
Figure 1.4.1 – Chart of Jobs by Sector 2018 for City of Palm Springs



Sources: California Employment Development Department, 2018; InfoGroup; & SCAG

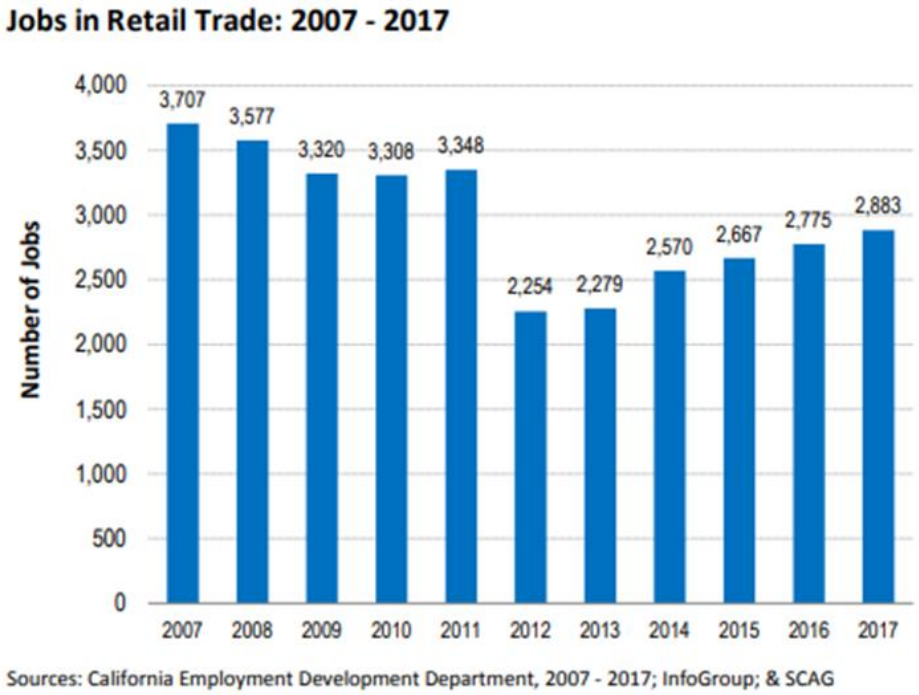
- In 2017, the Leisure sector was the largest job sector, accounting for 25.5 percent of total jobs in the city.
- Other major sectors included Education (25 percent), Professional (9.3 percent), and Retail (9.1 percent).

Figure 1.4.2 – Employment Development for City of Palm Springs



Sources: California Employment Development Department, 2007 - 2017; InfoGroup; & SCAG

Figure 1.4.3 – Employment Development for City of Palm Springs-Retail Sector

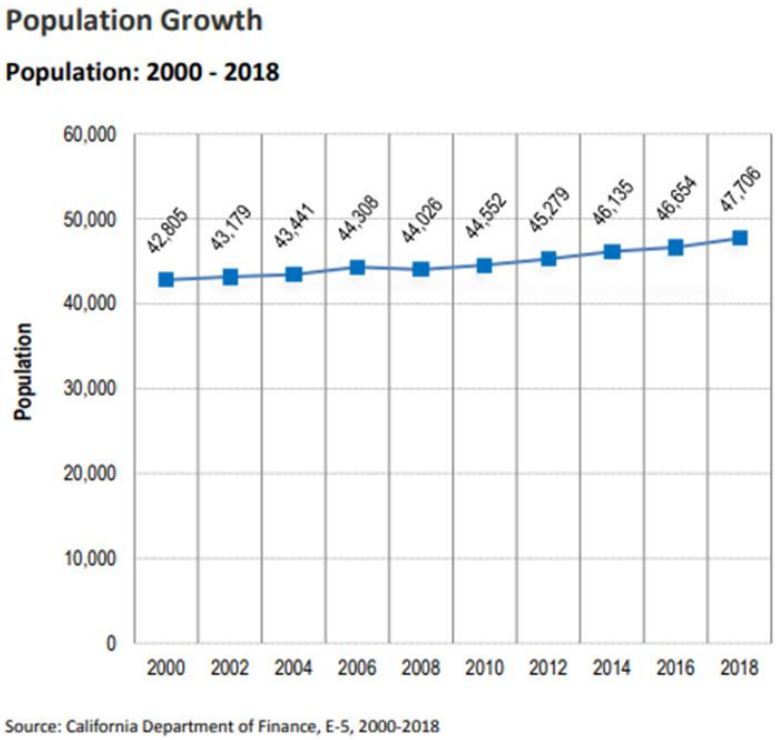


1.5 POPULATION AND HOUSING

The population estimates for April 1, 2020 by the United States Census was 44,575.[2] Compared to the April 1, 2010 Census which showed a population of 44,552[3]. From April 1, 2010 to April 1, 2020 the City has increased population by 0.05%. The United States Census data from April 1, 2020 shows that 31.7% of the City's population is 65 years and over compared to 16.5% for the rest of the United States.[4] Also, that 20.0% of the City's population was born outside of the United States.[5]

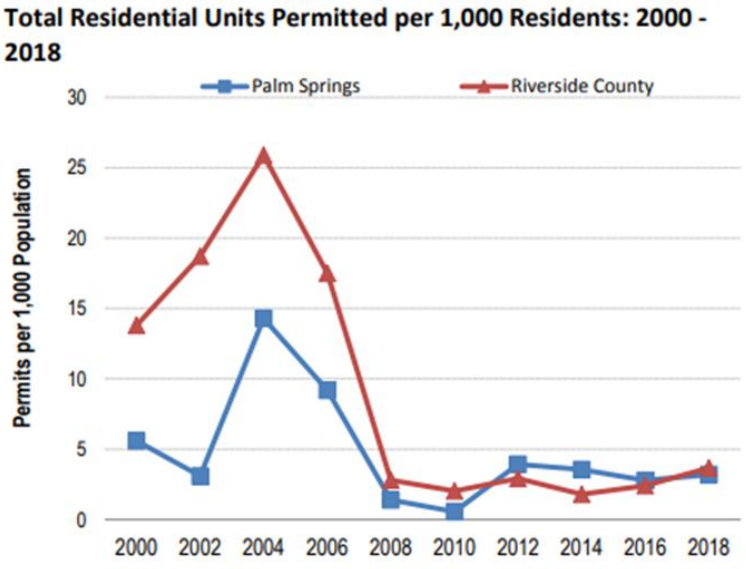
[2] "Quick Facts Palm Springs city, California." United States Census Bureau, July 1, 2021. Web. 20 February 2022. <https://www.census.gov/quickfacts/table/PST045216/0655254,00>
[3] "Quick Facts Palm Springs city, California." United States Census Bureau, July 1, 2021. Web. 20 February 2022. <https://www.census.gov/quickfacts/table/PST045216/0655254,00>
[4] "Quick Facts Palm Springs city, California." United States Census Bureau, July 1, 2021. Web. 20 February 2022. <https://www.census.gov/quickfacts/table/PST045216/0655254,00>
[5] "Quick Facts Palm Springs city, California." United States Census Bureau, July 1, 2021. Web. 20 February 2022. <https://www.census.gov/quickfacts/table/PST045216/0655254,00>

Figure 1.5.1- Population Growth for City of Palm Springs



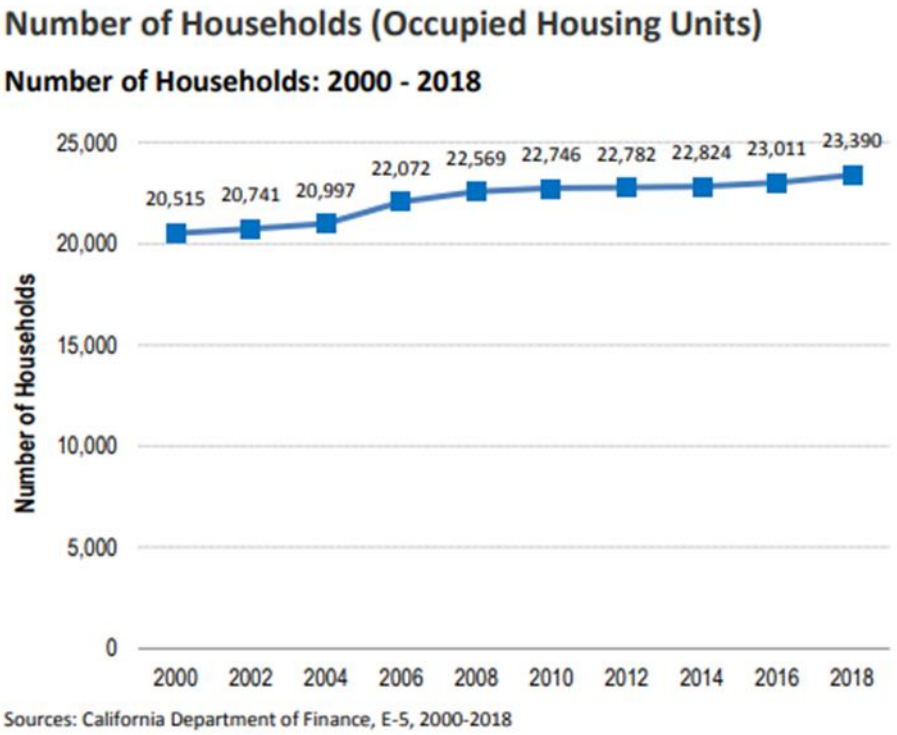
Source: California Department of Finance, E-5, 2000-2018

The median value of an owner-occupied housing unit between 2015 and 2019 was $389,800. Per the US Census Bureau during the July 1, 2019 Census there were 34,794 housing units and 60.9% are owner occupied.



Source: Construction Industry Research Board, 2000-2018

Figure 1.5.3- City of Palm Springs Number of Households



1.6 DEVELOPMENT TRENDS AND LAND USE

The City of Palm Springs is land locked form further land growth on all sides because of the City of Cathedral and Desert Hot Springs, Tribal Land, and a National Monument.

The City is currently going through a Downtown/Uptown Revitalization that is transforming 13 acres of land that were previously Desert Fashion Plaza. The revitalization will add to Downtown Palm Springs three hotels, 488,000 square feet of retail space, up to 900 residential units, 50,000 square feet of open space for a park, home for the Aluminare House, and a 3,000 person event stage. These additions to the Downtown/Uptown area are projected to add $2,165,000 to the City's economies through Transit Occupancy, Property Tax and Sales Tax when completely built out. The three hotels will add an additional 440 of hotel beds which is projected to bring thousands of additional tourists into Palm Springs each year. No development trends have impacted vulnerability to hazards.

Proposed Property	Product Type	City	Rooms	Est. Open Date	Developer	Development Stage
Arrive Palm Springs	B	Palm Springs	32	2015	Palm Grove Group LLC	Under Construction
Infusion Beach and Hotel Palm Springs	B	Palm Springs	124	2015	1875 N. Palm Canyon Gateway Partners, LP	Early Development
Kimpton Hotel Palomar Palm Springs	B	Palm Springs	155	2016	Wessman Development	Under Construction
Port Lawrence Hotel Palm Springs	B	Palm Springs	150	2016	Rael Development Corp.	Early Development
Staybridge Suites Cathedral City	ES	Cathedral City	197	2016	Cathedral Hotel Group, Ltd	Under Construction
SpringHill Suites Palm Desert	LS	Palm Desert	112	2016	Kalthia Group Hotels	Early Development
Dolce Selene Palm Springs Resort	FS	Palm Springs	200	2017	CDI Ventures LLC and Praetor Investments LLC	Early Development
SilverRock Resort Development	FS	La Quinta	340	2018	Meriwether Companies	Early Development
Luxury Resort Rancho Mirage	FS	Rancho Mirage	125	2018	Weintraub Real Rstate	Early Development
AC by Marriott Palm Springs	B	Palm Springs	135	-	Wessman Development	Early Development
Orchid Tree Resort Palm Springs	B	Palm Springs	98	-	Weintraub Real Estate Group	Early Development
Alcazar Lofts Hotel Palm Springs	B	Palm Springs	38	-	Pacifica Colony Palms Lofts LLC	Early Development

From 2016 to 2022 passenger traffic at the Palm Springs International Airport has increased by 5%. However, from 2016 to 2019, the increase was 28.3% from 1,998,206 to 2,563,955 people per year. COVID-19 travel restrictions severely impacted air travel to and from Palm Springs.

Year	Total Airport Traffic	Change from Previous Year
2016	1,998,206	
2017	2,100,072	5.1%
2018	2,327,018	10.8%
2019	2,563,955	10.2%
2020	1,252,094 *	-49% *
2021	2,092,943	67%
* Changes due to travel restrictions from COVID-19		
Total increase last 5 years 5%		

Figure 1.6.3 – Development Trends Questionnaire for City of Palm Springs

LOCAL JURISDICTION DEVELOPMENT TRENDS QUESTIONNAIRE 2022

LAND USE ISSUES - COMPLETE THE INFORMATION BELOW

JURISDICTION:	**DOES YOUR AGENCY HAVE RESPONSIBILITY FOR LAND USE AND/OR DEVELOPMENT ISSUES WITHIN YOUR JURISDICTIONAL BOUNDARIES? YES NO**			
	2017 DATA	**2022 DATA**		**2027**
Current Population in Jurisdiction or Served	47,371	44,575	Projected Population in Jurisdiction or Served - in 2027	50,000
Current Sq Miles in Jurisdiction or Served	96	96	Projected Sq Miles in Jurisdiction or Served - in 2027	96
Does Your Jurisdiction have any ordinances or regulations dealing with disaster mitigation, disaster preparation, or disaster response?	Yes	Yes	If yes, please list ordinance or regulation number. PSMC Chapter 2.20 Disaster Council	
What is the number one land issue your agency will face in the next five years	Affordable housing			
Approximate Number of Homes/Apts/etc.	35,490	36,120	Projected Number of Homes/Apts/etc.- in 2027	37,500
Approximate Total Residential Value	$5.8 Billion	$6 Billion	Projected Residential Total Value - in 2027	$6.3 Billion
Approximate Number of Commercial Businesses	2,600	2,600	Projected Number of Commercial Businesses - in 2027	2,600
Approximate Percentage of Homes/Apts/etc in flood hazard zones	14% in A Zone	14% in A Zone	Approximate Percentage of Homes/Apts/etc in flood hazard zones - in 2027	14% in A Zone
Approximate Percentage of Homes/Apts/etc in earthquake hazard zones	Alquist/ Priolo Zone 0%	Alquist/ Priolo Zone 0%	Approximate Percentage of Homes/Apts/etc in earthquake hazard zones - in 2027	Alquist/ Priolo Zone 0%
Approximate Percentage of Homes/Apts/etc in wildland fire hazard zones	0% Zone 10% Urban Interface	0% Zone 10% Urban Interface	Approximate Percentage of Homes/Apts/etc in wildland fire hazard zones - in 2027	0% Zone 10% Urban Interface
Approximate Percentage of Commercial Businesses in flood hazard zones	≤1%	≤1%	Approximate Percentage of Commercial Businesses in flood hazard zones - in 2027	≤1%
Approximate Percentage of Commercial Businesses in earthquake hazard zones	≤1%	≤1%	Approximate Percentage of Commercial Businesses in earthquake hazard zones - in 2027	≤1%
Approximate Percentage of Commercial Businesses in wildland fire hazard zones	0%	0%	Approximate Percentage of Commercial Businesses in wildland fire hazard zones - in 2027	0%
Number of Critical Facilities in your Jurisdiction that are in flood hazard zones	0	0	Projected Number of Critical Facilities in your Jurisdiction that are in flood hazard zones - in 2027	0
Number of Critical Facilities in your Jurisdiction that are in earthquake hazard zones	4	4	Number of Critical Facilities in your Jurisdiction that are in earthquake hazard zones - in 2027	4
Number of Critical Facilities in your Jurisdiction that are in wildland fire hazard zones.	0	0	Number of Critical Facilities in your Jurisdiction that are in wildland fire hazard zones - in 2027	0
Does your jurisdiction plan on participating in the County's on-going plan maintenance program every two years as described in Part I of the plan?	Yes	Yes	If not, how will your jurisdiction do plan maintenance?	
Will a copy of this plan be available for planning groups within your jurisdiction for use in future planning and budgeting purposes?				Yes

SECTION 2.0 - PLANNING PROCESS

2.1 LOCAL PLANNING PROCESS

The City of Palm Springs Local Hazard Mitigation Planning Committee meet on a regular basis to discuss the update process, identify mitigation strategies, prioritize mitigation actions, participate in public outreach planning, and review the plan before county submission.

The Planning Committee was comprised of representation from the following:

NAME	DEPARTMENT	POSITION	PURPOSE
Justin Clifton	City Manager	City Manager	Per City Ordinance Director of Emergency Services and Oversees the following Departments: Fire, Police, Airport, Communications
Flinn Fagg	Director of Development Services	Deputy City Manager/City Engineer	Oversees the following Departments: Building, Community and Economic Development, Engineering Services, Maintenance and Facilities, Planning, and Sustainability
Alberto Gradilla	Building	Director of Building and Safety	Site Plans, Building Code
Daniel DeSelms	Fire	Emergency Management Coordinator	Emergency Management, FEMA Grants
Felipe Primera	Engineering	Engineering Assistant	National Flood Insurance Program/ Community Rate System, Floodplain ordinance, engineering studies of water ways, GIS
David Tate	Desert Water Agency	Associate Engineer	Drought, climate change impacts on water resources
Joel Montalvo	Engineering Services	Director of Engineering	Storm Water Ordinance, Capital Improvement, Public Assistance (PA), Mitigation Projects, and Federal Highway Administration (FHA)

The Planning Committee cont:

NAME	DEPARTMENT	POSITION	PURPOSE
Rick Weingard	Fire Department Volunteer - CERT	Community Member	Community Member
Nancy Pauley	Finance	Director of Finance and Treasury	Grants, taxes, obligation bonds, critical facilities replacement costs, and Impact Fees
Staci Schafer	Maintenance and Facilities	Director of Maintenance and Facilities	Critical City Facilities, Tier II for City Facilities
Jay Virata	Community and Economic Development	Director of Community and Economic Development is vacant	CDPG, Economic development plan
J Kevin Nalder	Fire	Fire Chief	Wildfire Ordinance, ISO, Hazardous Materials
Andrew Mills	Police	Police Chief	Terrorism, community policing, and other human caused hazards
Denise Goolsby	City Manager	Neighborhood Manager	ONE-PS Neighborhood Involvement
Jason Underwood	Information Technology	Manager of Information Technology	Technological support
Fernando Alvarez	Information Technology	GIS Analyst	Mapping and data analysis

Planning Team members were asked to participant during the update through meetings, emails, and phone calls.

2.2 PARTICIPATION IN REGIONAL (OA) PLANNING PROCESS

The City of Palm Springs has participated in Riverside County workshops, conferences, and meetings including:

- Operational Area Planning Committee Meeting
  - September 9, 2021
  - May, 26, 2022
  - July 26, 2022
- Riverside County Emergency Management Agency
  - May 12, 2022

    - June 15, 2022
    - July 14, 2022
- Local Hazard Mitigation Plan Workshop
    - April 13, 2022
- Data Provided
    - May 12, 2022 – Rank Hazards

Stakeholders were invited to participate in this regional planning committee through various meetings, emails, and calendar invitations.

In addition, the City of Palm Springs has provided information and written and oral comments on the multi-jurisdictional plan.

2.3 DATES AVAILABLE FOR PUBLIC COMMENT

The public was provided an opportunity to provide comments and input into the City of Palm Spring's Local Hazard Mitigation Plan (LHMP) update from September 2021 through April 2022.

The City provided information to the public about the Local Hazard Mitigation Plan through multiple methods to ensure the widest dissemination. The City accepted feedback from the public from September 2021 through April 2022. The methods that were utilized were:

- City Webpage
- City Public Access Channel
- Organized Neighborhoods of Palm Springs (ONE-PS) monthly meetings
- CERT subcommittee monthly meetings
- Nextdoor
- Outreach and Education

The City's Emergency Management Coordinator created a Portable Document File (PDF) flyer explaining what a hazard mitigation plan is. The flyers provided contact information on where additional information could be obtained and how feedback could be provided on the plan. The flyer was posted to the City's webpage and handed out at outreach and education events. The flyer remains posted continuously to inform the public about hazard mitigation.

Also posted on the City's webpage was a survey for members of the community to rank the 20 identified hazards from least to greatest concern. The survey separated hazards into natural hazards and technological hazards. The survey was available on the City's website, and paper form if requested, from September

14, 2021 to November 30, 2021. The results of this survey were shared with the LHMP Committee and are enclosed as an attachment to this document.

The update of the LHMP was announced on the City's Access Channel through a slide and ran from September 9, 2021 through November 30, 2021.

The ONE-PS general meeting was targeted for public outreach because a representative from each neighborhood in the city attends providing the widest possible reach to the citizens of the community. An overview of the LHMP program and an update on the survey was provided at the October 12, 2021 and December 14, 2021 meetings. There were representatives from 49 neighborhood in attendance.

ONE-PS Disaster Subcommittee was targeted due to the members being active in the Community Emergency Response Team (CERT) and would be the most aware of potential hazards within their area of the community because of their training. The LHMP was initially introduced to the Subcommittee in August 2021 and has been on the monthly agenda through April 2022 to allow the committee members to provide input.

2.4 PLANS ADOPTED BY RESOLUTION

Upon approval by FEMA, the LHMP will be presented to the City of Palm Springs City Council in a public meeting for adoption via official Resolution.

SECTION 3.0 – MITIGATION ACTIONS/UPDATES

3.1 UPDATES FROM 2017 PLAN

No potential new hazards have been identified by the City Planning team since the approval of the 2017 plan. The City of Palm Springs has seen an increase in the number of homicides over the past five years with an annual average of 6: 2018 (5), 2019 (7), 2020 (5), 2021 (8), 2022 (4 as of May 31, 2022). The City of Palm Springs experienced the following major incidents from January 2017 to December 2022:

- Andrea's Ranch Fire – July 2018
- Multiple lighting fires, total of 25 fires – October 12-13, 2018
- Modern Cactus Fire – December 2018
- Valentine's Day Flood – February 2019
- Coronavirus (COVID-19) – January 2020 – ongoing
- Smoketree Fire – June 2020
- Tram Fire – July 2020
- Snow Fire – September 2020
- Plane Crash – December 2020
- Tram Fire – July 2021
- Happy Traveler (Mobile Home park) Fire – August 2021, 1 fatality

3.2 LIST OF COUNTY AND CITY HAZARDS

The below hazards are listed in priority order from greatest concern to least.

COUNTY IDENTIFIED HAZARDS	COUNTY RANKING	CITY IDENTIFIED HAZARD	CITY RANKING
Earthquake	1	Earthquake	1
Pandemic Flu	2	Flood	2
Wildland Fire	6	Pandemic	3
Electrical Failure	4	Extreme Weather	4
Emergent Disease/Contamination	5	Electrical Failure	5
Cyber Attack	9	Transportation Disruption	6
Terrorist Event	7	Drought	7
Communications Failure	8	Severe Wind Event	8
Flood	3	Terrorist Event	9
Civil Disorder	10	Civil Disorder	10
Drought	11	HazMat Incident	11
Nuclear/Radiological Incident	12	Pipeline Disruption	12

Extreme Weather	13	Aqueduct	13
Transportation Failure	14	Dam Failure	14
Dam Failure	15	Insect Infestation	15
Aqueduct	16	Agricultural Incident	16
Tornado	17	Wildland Fire	17
Insect Infestation	18	Landslide	18
Jail/Prison Event	19	Jail/Prison Event	19
Pipeline Disruption	20	Nuclear Incident	20
Landslide	21		
HazMat Incident	22		
Water Supply Disruption/Contamination	23		

3.3 NEW HAZARDS OR CHANGES FROM 2017

Many of the City hazards have remained in relatively the same order since the 2017 LHMP. Earthquake remains the City's highest ranking natural disaster for catastrophic losses. However, the City believes that flood, ranked 2, will continue to be the most likely challenge. Flooding impacts the city's arterial roads with even minor amounts of rain several times per year and the potential for impacts makes flood planning the priority for the City. Road closures from flooding impact City emergency services ability to access North Palm Springs. These closures also limit adjacent jurisdiction's ability to access Desert Regional Medical Center. Another change was pandemic moving from number 16 to number 3. This increase is attributed to the lasting effects of COVID-19. The City anticipates pandemic moving out of the top five during the LHMP cycle. The City continues to face increased risk of drought similar to the rest of the State of California. Civil unrest was increased because of the current unrest against Public Safety in the United States.

The City decreased agricultural related issued, landslide, jail/prison event, and nuclear incident. Due to the City not having an agricultural industry the hazards related to agriculture was decreased. The City does recognize that there is potential for landslide due to proximity to mountains, but does not see it as a high risk. The City does not hold prisoners or have a jail so the risk of a prison event would likely not impact the City directly. The City lowered nuclear incident due to the distance to the nearest nuclear power plant and minimal threat of radiological terrorism.

3.4 BRIEF STATEMENT OF UNIQUE HAZARDS

The City of Palm Springs has many hazards similar to other jurisdictions in Riverside County especially earthquake, flooding, and fires. In addition to these hazards the City also has the following:

- Many areas of the City may be subject to flooding, flash flooding, urban flooding (storm drain failure/infrastructure breakdown), river channel overflow, downstream flooding, etc.) The City has historically been vulnerable severe winter storms.
- A transportation incident such as a major air, train derailment, or trucking incident could impact areas within the City. This type of incident could expand to include hazardous materials and mass causality.
- A civil unrest incident could impact areas within the City or the entire City.

3.5 MITIGATION PROJECT UPDATES

Figure 3.4.1 – City of Palm Springs Capital Improvement Projects and Updates. All flood control projects are continuing projects from the 2018 plan and are joint work with Riverside County Flood Control. Due to the nature of the flood control projects, the timelines for bridges and the completion of storm drainage projects may carry over through the next HMP cycle.

TYPE OF HAZARD	MITIGATION ACTION	LEAD DEPARTMENT OR JURISDICTION	STATUS UPDATE
Flood	Bridge and Flood Control Projects	City of Palm Springs	Funds have been secured through various sources including CalTrans grants and the project is in the Environmental Phase Estimated start 2024. Projects have been separated due to scope of work.
All Hazard	Procure and implement new Reverse Notification System	City of Palm Springs-Office of Emergency Management	Completed
Terrorism / Security	Fire Station Keyless Entry System	City of Palm Springs	In Progress funded through general funds. Anticipated completion 2024
Terrorism	Firewall, Network Security and Monitor Software	City of Palm Springs	Currently Unfunded. Slated for development over FY24.

All Hazards	Incorporate LHMP into City Capital Improvement Plan	City of Palm Springs	Pending personnel and funding. Positions proposed during FY23-24 budget cycle. Anticipate additional staff FY25

SECTION 4.0 - HAZARD IDENTIFICATION AND RISK ASSESSMENT

4.1 CRITICAL FACILITIES AND INFRASTRUCTURES

The Hazard Mitigation Planning Committee (HMPC) conducted a hazard identification study to determine the hazards that threaten the City of Palm Springs. This section details the methodology and results of this effort. While the City's most catastrophic hazard remains earthquake, the City will continue to prioritize flood mitigation as it is the most frequent natural hazard the City faces. Most City facilities are at low risk from severe damage due to flooding, so loss of infrastructure planning used an earthquake scenario when assessing potential loss of infrastructure and facilities. Floods have been a part of the City's past and will continue to be so in the future. The City is working in conjunction with Riverside County Flood Control & Water Conservation District to identify and mitigate areas that may cause or have the potential to cause damage or destruction of property.

Table 4.1.1 – City of Palm Springs Critical Facilities

PRIMARY CRITICAL FACILITIES TYPE	NUMBER
Emergency Operations Centers (Primary and Alternate)	2
City Hall	1
Fire Stations	5
Wastewater Treatment Plant	1
Police Facility / Communications Center (911 Dispatch for Police and Fire)	1
City Corporate Yard: Fleet, Facilities, Street Divisions	1
Edom Hill	1
Palm Springs International Airport	1
Waste Water Treatment Plant	1
Co-Generation Plants	1
Not owned or operated by the City but is critical to the Community	
Desert Regional Medical Center	1
Desert Water Agency	1
Mission Springs Water	1

Source: City of Palm Springs Emergency Operations Plan 2012

Table 4.1.2 – City of Palm Springs Secondary Critical Facilities

SECONDARY CRITICAL FACILITIES TYPE	NUMBER
Park and Recreation Facilities	2
Convention Center (owned but not operated by the City)	1
Animal Shelter	1
Senior Center	1
Co-Generation Plants	2
Not owned or operated by the City but is critical to the Community	
Public Schools	7
Private Schools	3
Assisted Living Facilities	4
Homeless Shelter	1

Source: City of Palm Springs Emergency Operations Plan 2012

4.2 ESTIMATING POTENTIAL LOSS

Government Buildings

Palm Springs government buildings vary in structural design due to time of construction and building codes that were utilized. These varying building codes affect the residency of a building to withstand a disaster. It is critical that certain branches of city government continue to function after the initial shock. Because of the structural design and construction, the City EOC is expected to withstand a significant shock, and damage is anticipated to remain minimal. Fire stations are generally not earthquake resistant, but because of the redundancy of stations, the city fire protection will remain intact. Fire station 4 was renovated in 2019 and was partially retrofitted to meet current seismic standards. Stations 1 and 3 may be hardest hit due to their location and construction and could suffer major damage due to ground shaking and settling. Fire Station 3 at 590 E. Racquet Club Road has had a seismic retrofit to its apparatus room following the Landers earthquake.

Airport

There is one commercial and international airport in the Coachella Valley, Palm Springs International Airport. The primary hazards at this site are damage to terminal, runways, air traffic control tower, hangars, and fuel storage facilities. Palm Springs International Airport runway is expected to remain operational, with potential minor to moderate damage. Emergency actions may need to be taken to control air space, prioritize use of available air transport, and restrict access to the facility. Nearby Banning Airport is located in an area of anticipated high shaking intensity with potential moderate to major damage expected.

In addition to Palm Springs International Airport, the area hosts other smaller airfields: Thermal, Bermuda Dunes, Desert Center and Blythe Airports. Thermal Airport is located in a high potential liquefaction area. Desert Center Airport is relatively isolated in an area of sparse population to the east of the fault. Bermuda Dunes Airfield is located close to the fault rupture zone but is not within the liquefaction area. Blythe Airport is sufficiently distant from the fault zones to experience little, if any damage.

Sanitation Systems

Palm Springs' sanitation services are provided by the city's wastewater treatment facility located on Mesquite Road near Demuth Park. This facility may be damaged and operate in a limited capacity following a disaster.
Wastewater supply and sewage lines, storage reservoirs pumping plants, treatment ponds, treatment plants and solid and liquid waste disposal sites will sustain varying degrees of damage depending on their location relative to the affected fault, soil conditions and adequate facility design to withstand shaking. Disruption of the sewage system will result in sewage flowing in some streets and streams where human contact can result. Public notice in such cases will be important.

Overflow of sewage through manholes and from ponds can be expected due to breaks in mains and loss of power. Gas mains will be broken, causing natural gas to migrate into sewers. Rupture of underground gasoline storage tanks will result in infiltration of gas into sewers. Consequently, there is the possible danger of the collection of explosive gas in sewers and the flow of untreated sewage in some street gutters. Many house connection sewers will break and plug, causing them to become inoperative.

Although extensive damage may affect the sewage collection system, the damage will not be sufficient in most areas to significantly impair the system's ability to convey wastewater. This is because most of the system conveys by gravity.

Medical and Custodial Care Facilities

The primary provider of medical services will be Desert Regional Medical Center. This facility is a 367-bed, fully licensed and accredited general/acute care hospital and Level II Trauma Center. Their services include the following:

1. 24 hour fully equipped emergency room with specially trained personnel.
2. Intensive Care Unit
3. Coronary Care Unit
4. Post Coronary Care Unit

5. Fully equipped and staffed Cardiology, Laboratory, Gastrointestinal, Hematological, Radiological and Surgical Facilities.

Upon receiving notification of a medical emergency, Desert Hospital External Disaster Plan 091-00 will be put into effect by the appropriate hospital authority. Referral of patients or survivors will be made to other emergency facilities which may be used for the treatment of casualties as determined by this Plan.

In addition to the hospital, there are many immediate care facilities and nursing facilities in Palm Springs. These facilities are, perhaps, the most difficult because of the non-ambulatory nature of some of the occupants. Specific planning is imperative to deal with the probability of evacuation and relocation of persons involved. Critical care facilities may suffer loss of power, telephones and sanitation. Damage and interruption of the orderly flow of activities may result beginning at a level VI of the Modified Mercalli scale.

4.3 REPLACEMENT VALUES

The City of Palm Springs last performed a property appraisal on January 10, 2019. Appraisals are scheduled every five years.

Table 4.3.1 – City of Palm Springs Primary Critical Facilities Replacement Values

NAME OF ASSET	REPLACEMENT VALUE ($)		HAZARD SPECIFIC INFORMATION
	BUILDING	CONTENTS	
City Hall (Primary EOC)	$7,546,282	$1,528,300	Hazardous Materials Unsecured Perimeter
City Hall Building Annex	$6,321,784	$1,220,500	Hazardous Materials Unsecured Perimeter
Fire Department-Station 1 *Apparatus values are excluded	$1,728,294	$165,000	Hazardous Materials Unsecured Perimeter Bio-hazard
Fire Department-Station 2 (Alternate EOC) *Apparatus values are excluded	$5,563,085	$310,000	Hazardous Materials Unsecured Perimeter Bio-hazard

Fire Department-Station 3 *Apparatus values are excluded	$1,718,251	$165,000	Hazardous Materials Unsecured Perimeter Bio-hazard
Fire Department-Station 4 *Apparatus values are excluded	$4,139,406	$165,000	Hazardous Materials Unsecured Perimeter Bio-hazard
Fire Department-Station 5 *Apparatus values are excluded	$1,217,014	$165,000	Hazardous Materials Unsecured Perimeter Bio-hazard
City Yard Complex: Fleet, Facilities, Street, Parks Divisions	$9,695,974	$2,875,000	Hazardous Materials
Waste Water Treatment Plant	$52,931,859	$9,423,400	Hazardous Materials
Police Department and Dispatch Center	$19,221,024	$3,720,000	Hazardous Materials Partial Unsecured Perimeter
Communication Repeater and Building—Edom Hill	$4,216,130	$602,800	Hazardous Materials
Palm Springs International Airport	$81,602,931	$4,935,000	Hazardous Materials Bio-hazard Civil Unrest
Co-Generation Plant-City Hall *Prior to new engine installation	$5,005,560	N/A	Hazardous Materials
Co-Generation Plant-Sunrise *Prior to plant	$2,042,830	N/A	Hazardous Materials

closure and engine removal			

Table 4.3.2 – City of Palm Springs Secondary Critical Facilities Replacement Values

NAME OF ASSET	REPLACEMENT VALUE ($)		HAZARD SPECIFIC INFORMATION
	BUILDING	CONTENTS	
James O Jessie Highland Unity Center	$3,985,161	$218,700	Hazardous Materials Civil Unrest Bio-hazard
Pavilion and Pool	$22,062,852	$763,000	Hazardous Materials Bio-hazard
Animal Shelter	$6,791,688	$150,000	Bio-hazard Infectious Disease Hazardous Materials
Convention Center	$81,347,290	$6,478,100	Hazardous Materials Unsecured Perimeter

The City does not own the following critical facilities and does not maintain replacement values for them:

- Public Schools
- Private Schools
- Assisted Living Facilities
- Homeless Shelter
- Desert Regional Medical Center
- Desert Water Agency
- Mission Springs Water

4.4 IDENTIFICATION OF RISKS AND VULNERABILITIES

JURISDICTION VULNERABILITY WORKSHEET

HAZARD	SEVERITY 1 - 4	PROBABILITY 1 - 4	RANKING 1 - 20	Mitigation Priority
1. EARTHQUAKE	**4**	**2**	**1**	**Medium**
2. FLOOD (**City priority**)	**3**	**4**	**2**	**High**
3. PANDEMIC	**3**	**3**	**3**	**Low**
4. EXTREME SUMMER/WINTER WEATHER	**2**	**4**	**4**	**Medium**
5. POWER OUTAGE/ FAILURE (**City planning priority**)	**3**	**3**	**5**	**Medium**
6. TRANSPORTATION DISRUPTION	**3**	**3**	**6**	**Medium**
7. DROUGHT	**2**	**4**	**7**	**Medium**
8. SEVERE WIND EVENT	**3**	**4**	**8**	**Medium**
9. TERRORISM	**4**	**2**	**9**	Low
10. CIVIL UNREST	**3**	**3**	**10**	Low
11. HAZMAT ACCIDENTS	**2**	**3**	**11**	**Medium**
12. PIPELINE	**3**	**2**	**12**	Low
13. AQUEDUCT	**1**	**1**	**13**	Low
14. DAM FAILURE	**2**	**1**	**14**	Low
15. INSECT INFESTATION	**2**	**1**	**15**	Low
16. AGRICULTURAL INCIDENT	**1**	**1**	**16**	Low
17. WILDLAND FIRE	**3**	**3**	**17**	Low
18. LANDSLIDES	**3**	**2**	**18**	Low
19. JAIL/PRISON EVENT	**1**	**1**	**19**	Low
20. NUCLEAR INCIDENT	2	1	20	Low

Severity: **1 = Negligible**, less than 10% of property severely damaged, shutdown of facilities/services less than 24 hours, minor injuries requiring first aid.
2 = Limited, 10-25% of property damaged, shutdown of facilities 1-14 days, minor injuries.
3 = Critical, 25-50% of property severely damaged, facilities shutdown >14 days, significant injuries.
4 = Catastrophic, greater than 50% of property severely damaged, long term shutdown of facilities, major injuries and loss of life.

Probability **1 = Unlikely**, less than 1% chance of occurrence; **2 = Occasional**, 1-10% chance of occurrence in the next year; **3 = Likely**, 10-100% chance of occurrence in the next year; **4 = highly likely**, near 100% chance of annual occurrence.

Completed on March 3, 2022

4.4.1 Earthquake

Major Earthquake Severity – 4, Probability – 2, Ranking – 1

The City of Palm Springs is in the vicinity of several known active and potentially active earthquake faults and shares many of the hazards associated with earthquake faults in Southern California. At least two active faults, the Banning and Garnet Hill faults extend through portions of the City. Both fault zones are capable of causing significant damage to the City. Other faults in the region, such as the San Andreas, San Gorgonio Pass, and San Jacinto faults, also have the potential to produce strong seismic shaking in Palm Springs. While earthquakes have the potential to be the most damaging natural hazard in terms of severity, the City will continue to prioritize mitigation strategies for more probable hazards. Historically, major temblors have struck the Coachella Valley every 150 years, on average, but for reasons no one can explain, it's been quiet for 300 years.

More recent studies of the eastern knot of the San Andreas near San Gorgonio Pass reveal that this area is more advanced in the cycle of strain accumulation than the western knot at the Cajon Pass. A growing body of geologic evidence suggests that the south-central segment of the San Andreas Fault is ruptured repeatedly by a characteristically large event such as the 1857 Fort Tejon earthquake, Richter magnitude 7.9. Earthquake activity around the southern San Andreas in June, 1992 Landers-Big Bear quakes, have prompted scientists to increase their studies of this area. The San Andreas Fault represents the greatest threat to Palm Springs. However, the San Jacinto Fault also represents a significant threat to the City and should not be discounted.

Recently, the U.S. Geological Survey and the California Geological Survey teamed up to develop *The ShakeOut Scenario* which describes how a magnitude 7.8 earthquake on the southern portion of the San Andreas Fault would impact the region, causing loss of lives and massive damage to infrastructure, including critical transportation, power, and water systems. It could be aggravated by aftershocks and landslides, fires, hazardous material spills and explosions. An earthquake of this magnitude could directly affect all of Riverside County and most of southern California, causing a critical demand on mutual aid resources and competition for Federal relief.

Ground Shaking

The most significant earthquake action in terms of potential structural damage and loss of life is ground shaking. Ground shaking is the movement of the earth's surface in response to a seismic event. The intensity of the ground shaking and

the resultant damages are determined by the magnitude of the earthquake, distance from the epicenter, and characteristics of surface geology. This hazard is the primary cause of the collapse of buildings and other structures.

The HAZUS (Hazards U.S.) database for the 7.8 *ShakeOut Scenario* estimates for the City of Palm Springs that the long duration ground shaking will moderately or completely damage nearly 25% of the total building structures in the city .

Earthquake-Induced Slope Failures and Landslides

Strong ground motions can worsen existing unstable slope conditions, particularly if coupled with saturated ground conditions. Earthquake-induced slope failures generally include rock falls, landslides, and debris flows that can overrun structures, people, or property, sever utility lines, or block roads, which can hinder rescue operations after an earthquake. After the 1986 North Palm Springs earthquake, numerous landslides consisting primarily of debris slides and rock falls were reported over an area of 600 square kilometers.

The southern parts of Palm Springs are most vulnerable to seismically induced slope failure, due to the steep terrain. These areas of the City are at the foot of the San Jacinto Mountains or below hills covered with large boulders that are most susceptible to rock fall. In areas where there is development at the base of steep slopes, dislodged boulders can roll down onto roadways, with the potential to impact passing motorists.

Liquefaction

Liquefaction occurs when loose, soft, unconsolidated, or sandy soils that are saturated with water are subjected to ground vibrations during a seismic event. Significant ground shaking causes soil to lose strength and “liquefy,” triggering structural distress or failure due to the settling of the ground or a loss of strength in the soils underneath structures.

The northern and eastern areas of the City have a low possibility of being affected by liquefaction. This hazard is considered low in the Palm Springs area because the approximate depth to groundwater is greater than 50 feet. Research and historical data indicate that loose, granular materials saturated with groundwater and located at depths of less than 50 feet with silt and clay contents of less than 30 percent are most susceptible to liquefaction. Shallow groundwater that can contribute to the occurrence of liquefaction is known to occur locally in the downtown area, immediately surrounding the Agua Caliente Springs. A strong earthquake could cause liquefaction in this area, most likely occurring as “sand

volcanoes” immediately surrounding the spring. Seasonal fluctuations in groundwater levels and the introduction of residential irrigation increase liquefaction risk.

Many areas may have buildings destroyed or unusable due to the phenomenon of liquefaction. Liquefaction is a phenomenon involving the loss of shear strength of a soil. The shear strength loss results from the increase of poor water pressure caused by the rearrangement of soil particles induced by shaking or vibration. Liquefaction has been observed in many earthquakes, usually in soft, poorly graded granular materials (i.e., loose sands), with high water tables. Liquefaction usually occurs in the soil during or shortly after a large earthquake. In effect, the liquefaction soil strata behave as a heavy fluid. Buried tanks may float to the surface and objects above the liquefaction strata may sink. Pipelines passing through liquefaction materials typically sustain a relatively large number of breaks in an earthquake. In Palm Springs the Spa Hotel and some areas downtown may be susceptible to the effects of liquefaction.

Electrical Power

Major power plants are expected to sustain some damage due to liquefaction and the intensity of the earthquake. Up to 60% of the system load may be interrupted immediately following the initial shock. According to representatives of Southern California Edison Company, the electrical power will not be rerouted and will be lost for an undefined period of time. Much of the imported power is expected to be lost. In some areas of greatest shaking it should be anticipated that some of the distribution lines, both underground and surface, will be damaged. Much of the affected area may have service restored in days; damaged areas with underground distribution may require a longer time. Loss of Southern California Edison transmission lines is possible.

Water Supply

In the event of a major earthquake, most water systems within the City will suffer some damage. Water distribution pipelines vary from 2 inches to 54 inches or more in diameter. Pipe materials vary from cast iron to welded steel and asbestos cement to a variety of plastic materials. The damage to distribution pipelines is expected to vary with pipe material, soil type slide conditions, and degree of corrosion, design and installation practices, and joint type. In local distribution lines of fewer than 12 inches in diameter, there will be hundreds of breaks and thousands of leaks. Breaks in housing service connections will be common.

The Desert Water Agency has been proactive in installing "Earthquake" valves on its larger reservoirs to prevent an uncontrolled flow of water following a major earthquake.

Pumping plants are generally more compact structures and with the exception of related electrical equipment and transformers, will probably not suffer as much damage as distribution reservoirs. Large pumping plants will suffer damage closely related to ground acceleration and to the soils on which they were constructed. Damage is anticipated to be primarily related to pipeline rupture and transformer damage.

4.4.2 Flood

Severity – 3, Probability – 4, Ranking – 2

Major flood control structures in the City of Palm Springs area include the Whitewater River Levee, the Chino Canyon Levee and Channel, and the Palm Canyon Wash Levee. The levee between Palm Canyon Wash and Gene Autry Trail, maintained by the Riverside County Flood Control and Water Conservation District (RCFCWCD), protects the northern part of the highly developed Palm Springs area from 100- and 500-year flooding from Chino Creek and the Whitewater Channel. The Palm Canyon Wash levee directs flows from Palm Canyon and Arenas Canyon northeastward to the Tahquitz Creek. It provides 100-year storm protection on the north side of the channel down to Tahquitz Creek and on the south side of Tahquitz Creek channel to the Whitewater River.

Flooding resulting from dam failure is a potential hazard for the City. The Tachevah Creek Detention Reservoir and the Tahquitz Creek Debris Basin are two flood-control structures in the Palm Springs area required by the California State Water Code to be monitored for structural safety and that have the potential to pose a flooding risk to the City.

The Tachevah Creek Detention Reservoir, about 1,200 feet downstream from the mouth of Tachevah Canyon, is formed by a 42-foot-high embankment constructed of compacted earth fill, and has a capacity of approximately 650 million gallons. This dam was built in 1964 and protects the highly urbanized central part of the City from floods and debris flows.

The Tahquitz Creek Debris Basin, which is a considerably smaller structure, was designed and constructed to reduce the risk of flooding the Tahquitz Creek has historically posed to Palm Springs. Completed in May 1991 by the U.S. Army Corps of Engineers, the basin consists of a natural channel and dam with a debris

storage capacity of about 33 million gallons and a two-mile reach of grass-lined channel used as a golf course and bicycle and equestrian trails. An inundation pathway for this dam is not available, possibly because it rarely holds water expect during periods of intense and continuous rainfall. Therefore, its inundation threat is considered very low.

Flooding is also expected to occur on the alluvial fans that the developed part of the City occupies, primarily from sheet flow. Flood-control structures built and maintained by the RCFCWCD have helped reduce flood damage in the City since they were installed. Outside of the developed area of the City, most drainage channels are still in their natural state. Due to the construction of flood-control structures, sheet flow in most of these areas is estimated to be infrequent in occurrence and less than one foot deep.

Floods have been a part of the City's past and will continue to be so in the future. Flooding in the City occurs annually in the desert washes and some surface streets. These floods impact the major arterial roads of the City and regularly cause road closures. In some cases, these closures inhibit emergency response by the City's Police and Fire Departments. The City is currently working on several flood control projects in coordination with Riverside County Flood Control to mitigate potential flood damage as were seen in recent years. Mitigation priorities include ensuring arterial roadways can remain operational during heavy rains and mountain runoff. Flood control projects are likely to continue over the duration of this HMP.

4.4.3 Pandemic

Severity – 3, Probability – 3, Ranking – 3

The global Coronavirus (COVID-19) pandemic forced a reevaluation of pandemic risks. Tourism being one of the largest economic drives of the City brings with it unique challenges. These unique challenges and increased risk of an outbreak are people from areas other than the United States bringing with them viral strains that residents of Palm Springs may not have immunity to. This lack of immunity to a viral strain could cause a pandemic situation within the immediate area. Also, with an International Airport even if the travelers do not stay within the City they could spread viral strain to other travelers and personnel employed at the airport.

4.4.4 Extreme Weather

Severity – 2, Probability – 4, Ranking – 4

The City of Palm Springs has historically been a land of extreme weather as a part of the Colorado Desert. The extremes and types of weather are increasing and changing. The City has a wide range of temperatures from summer to winter.

From 2018 to 2021 the winter temperatures dipped down in the evenings to as low as 32°F and were as high as 123°F in the summer months. On June 17, 2021, the City of Palm Springs recorded the record high of 123°F.

Table 4.4.4.1 Average Minimum Temperatures

Month	2018	2019	2020	2021	Average By Month
January	53.4	48.7	48.4	49.0	**49.9**
February	51.1	44.9	50.3	52.4	**49.7**
March	56.0	54.3	53.5	52.4	**54.1**
April	64.0	63.3	61.7	62.8	**63.0**
May	66.8	62.6	66.0	68.3	**63.5**
June	74.7	74.5	69.6	79.5	**74.6**
July	86.0	80.2	74.9	74.9	**79.0**
August	84.0	80.7	84.1	74.3	**80.8**
September	77.6	74.9	77.9	75.0	**76.4**
October	67.1	63.7	69.3	63.2	**65.8**
November	55.2	55.8	55.8	61.0	**57.0**
December	45.6	48.4	47.7	49.4	**47.8**
Average By Year	**65.1**	**62.7**	**63.3**	**63.5**	**63.7**

Table 4.4.4.2 Average Maximum Temperatures

Month	2018	2019	2020	2021	Average By Month
January	75.7	67.4	72.1	70.5	**71.4**
February	74.3	63.7	75.5	75.9	**72.4**
March	78.9	77.1	73.1	76.6	**76.4**
April	90.8	89.4	84.7	90.9	**89.0**
May	92.8	86.9	99.0	95.1	**93.5**
June	105.2	102.9	102.0	107.8	**104.5**
July	108.8	108.5	110.9	108.3	**109.1**
August	108.3	110.2	111.0	106.6	**109.0**
September	104.7	99.6	107.0	102.9	**103.6**
October	87.8	89.6	97.0	87.0	**90.4**
November	78.6	80.2	81.0	85.6	**81.4**
December	71.2	65.9	71.3	69.0	**69.4**
Average By Year	**89.8**	**86.8**	**90.4**	**89.7**	**89.2**

4.4.5 Power Outage

Severity – 3, Probability – 3, Ranking – 5

The impact of a power outage could depend on the time of year. During the extreme temperatures of the summer the City's community has a very small window before the evaluated temperatures can impact people, pets, and perishable items in refrigerators. Southern California Edison generally performs

system maintenance during the more mild times of year to try and prevent outages during the extreme temperatures of the summer. During the summer months there is also an increased risk of outages when the electrical system become overloaded due to high demand for power to run air conditionings. The City has emergency generators on key City facilities in mitigation of this potential. The City also has predesigned cooling centers that are open for people to cool off if their air conditioning does not work at home or if they cannot afford to operate their air conditioning.

4.4.6 Transportation Incident

Severity – 3, Probability – 3, Ranking – 6

Major rail transport lines near Palm Springs include the Southern Pacific, and Union Pacific Railway Companies. Rails, cars, supporting bridges, overpasses, and electrically operated switching mechanisms are susceptible to damage.

The Southern Pacific, a major Southern California supply route, enters the Coachella Valley from Imperial County along the eastern shore of the Salton Sea. It follows Highway 111 and then Interstate 10 through the Coachella Valley. Because of the close proximity of the rail lines as they parallel almost the entire length of the San Andreas Fault, particularly in the area near the City, extensive damage could occur. This may include bent rails, overturned cars (including possible carriers of hazardous materials) and damage to supporting structures.

4.4.7 Drought

Severity – 2, Probability – 4, Ranking – 7

The City is located in a desert region with minimal annual rainfall. It is susceptible to prolonged drought conditions as other areas in the State receive less than normal rainfall.

Desert Water Agency (DWA) indicated that drought could be contributed to several factors.

- With higher air temperatures water losses could increase across the Coachella Valley Region which would lead to increased evaporation in water bodies that would normally allow for ground water recharge
- Increase population could impact the availability of water in the area because the needs demands could outpace supply
- Groundwater water supplies compared to surface water sources are less likely to be impacted due to climate change but will greatly be relied upon during a drought
- Climate change could impact the recharge of groundwater which could lead to a drought

- Drought is a frequent occurrence because of the arid and drier climate in which the City is located

4.4.8 Severe Wind Event

Severity – 3, Probability – 4, Ranking – 8

Strong winds are endemic to the Palm Springs area, due to the tunneling effect of air through the narrow San Gorgonio Pass. Wind can damage land and vegetation, and in this region, where surface sediments are predominantly dry and granular, windblown sand and dust can impact surface improvements, air quality (creating health hazards), and visibility.

Wind erosion commonly occurs in flat, bare areas, dry, sandy soils, or anywhere the soil is loose, dry, and finely granulated. Wind erosion damages land and natural vegetation by removing soil from one place and depositing it in another. Since high winds blow down the axis of the Coachella Valley, recreational and resort communities that first developed in the upper Coachella Valley were generally located in areas sheltered from these winds, tucked in coves at the base of the mountains. However, as the area has grown, development has had to move into the central axis of the valley and into the high-wind areas. As seen in Figure 7, most of the urban development in the City of Palm Springs lies within an area of high susceptibility to wind erosion. Recreational land uses, especially use of off-road vehicles, can also accelerate erosion in the area.

Wind and windblown sand pose an environmental hazard throughout the Coachella Valley. Buildings, fences, roads, crops, automobiles, trees, and shrubs can all be damaged by abrasive blowing soil. In some areas, windblown sand has actually forced the abandonment of dwellings and subdivided tracts in the central Coachella Valley. In Palm Springs, windblown sand has repeatedly caused the closure of several roads, costing the City thousands of dollars in cleanup. The roads with the most frequent closures include Indian Canyon Drive, Gene Autry Trail, and Vista Chino

4.4.9 Terrorism

Severity – 4, Probability – 2, Ranking – 9

The City of Palm Springs has numerous high-profile sites and Seismic potential that require additional security/preparation measures to be taken in conjunction with other Local, State and Federal agencies. Some of these sites include Palm Springs International Airport, numerous high profile events, Railroad commerce, High Volume Gas pipeline, Electrical Generation, Tribal lands, National Parks, Tourist and Historical Landmarks, past Presidents and Hollywood influences. In the event of a terrorist attack, natural disaster or other large-scale emergency, the

Department of Homeland Security, in conjunction with the City of Palm Springs, will provide a coordinated, comprehensive response and mount a swift and effective recovery effort.

Fusion centers are owned and operated by state and local entities with support from federal partners in the form of deployed personnel, training, technical assistance, exercise support, security clearances, and connectivity to federal systems, technology, and grant funding. The City of Palm Springs participates with the JRIC (Joint Regional Information Center) that encompasses seven counties in Southern California.

The Department of Homeland Security provides the coordinated, comprehensive federal response in the event of a terrorist attack, natural disaster or other large-scale emergency while working with federal, state, local, and private sector partners to ensure a swift and effective recovery effort.

4.4.10 Civil Unrest

Severity – 3, Probability – 3, Ranking – 10

The City hosts a large number of conventions and public gatherings. With these types of events there is a potential for civil unrest. People that come for conventions or other major events bring with them their own cultural norms that do not always align with the established cultural norms of the community they are visiting. These conflicting social norms can result in the potential for civil unrest.

Civil unrest can severely impact the City due tourism being one of the major economic drives of the City. Without tourism the City would be severely impacted. Since, the last Local Hazard Mitigation Plan the Country has seen as increase in Civil Unrest relating to Law Enforcement.

4.4.11 Hazardous Materials Incident

Severity – 2, Probability – 3, Ranking – 11

State Highway 111, I-10, and the Southern Pacific Railroad corridor are all used to transport hazardous materials through the City. It is these areas that have the highest likelihood of potential spills or leaks. The California Highway Patrol is in charge of spills that occur in or along freeways, with Caltrans and local police and fire departments responsible for providing additional assistance. Additionally, natural gas transmission pipelines extend across the City and sphere of influence north of I-10. Rupture of any portion of this pipeline would adversely impact the area.

4.4.12 Pipeline Incident

Severity – 3, Probability – 2, Ranking – 12

Most major pipelines cross the San Andreas Fault, and pipeline breakage is expected. There is a possibility of fire where pipeline failures occur. Priorities will have to be established to assure adequate fuel for emergency crews. Ruptures of numerous lines due to fault breaks on the San Andreas are most likely. Fire is a serious threat if leaking products are ignited and a considerable environmental concern if they leak into the ground.

4.4.13 Aqueduct

Severity – 1, Probability – 1, Ranking – 13

The City of Palm Springs has two aqueducts, both of are located on the extreme Northwest section of the City. The first one is an artificial aqueduct that is cement lined that carries water into the second aqueduct that is located in the Whitewater basin. The water that enters the Whitewater Basin then goes into spreading ponds that allows the water to reenter the aquifer. The artificial aqueduct could produce water movement that is extreme enough to produce a swift water rescue. This type of incident has not occurred during this LHMP reporting period. If the dirt berms on the spreading ponds were to break then Indian Canyon Drive would become in passable which is no different than a heavy rain storm. This only occurred once during this operational period.

4.4.14 Dam Failure

Severity – 2, Probability – 1, Ranking – 14

Dam failure is a potential hazard for the City of Palm Springs. The Tachevah Creek Detention Reservoir and the Tahquitz Creek Debris Basin are the two main flood-control structures within the City's urbanized area. These structures are required to be monitored for structural integrity by the California State Water Code. Failure of these structures have the potential to pose a flooding risk to the City and its residents.

The Tachevah Creek Detention Reservoir is 1,200 feet downstream from the mouth of Tachevah Canyon. The reservoir is formed by a 42-foot-high embankment constructed of compacted earth fill and rock. The reservoir has a capacity of approximately 650 million gallons. This dam was built in 1964 by the U.S. Army Corps of Engineers and protects the northerly part of the city from flood and debris flows.

The Tahquitz Creek Debris Basin and Channel were constructed by the U.S. Army Corps of Engineers and completed in 1991. The Debris Basin has a storage capacity of about 33 million gallons. The Tahquitz Creek Channel consists of 1.3

miles of a natural channel which changes into 2.0 miles of grass-lined channel used as a golf course and includes bicycle and equestrian trails before converging with the Palm Canyon Wash. An inundation pathway for this dam is not available, because it rarely holds water except during periods of intense and continuous rainfall. The 2019 Valentine's Day Flood, that filled and overflowed the Tahquitz Creek Debris Basin, kept flood waters within the channel geometry. No buildings surrounding the channel were affected by floodwaters, therefore, its inundation threat to residents is considered very low.

4.4.15 Insect Infestation

Severity – 2, Probability – 1, Ranking – 15
City has limited problems with insect infestation but with prolonged rain in the spring with high temperatures could increase the probability of mosquitoes.

4.4.16 Agricultural Incident (Natural or Man-made)

Severity – 1, Probability – 1, Ranking – 16
City has limited problems with insect infestation but with prolonged rain in the spring with high temperatures could increase the probability of mosquitoes.

4.4.17 Wildland Fire

Severity – 3, Probability – 3, Ranking – 17
Wildfires are a significant hazard in the Western United States, where they occur naturally and have always been part of the natural environment. Large areas of southern California are particularly susceptible to wildfire due to the region's weather, topography, and native vegetation. The typically mild winters, characteristic of the region's Mediterranean climate, result in an annual growth of grasses and plants that dry out during the hot summer months. This dry vegetation provides fuel for wildfires in the autumn, when the area is intermittently impacted by Santa Ana winds—the hot, dry winds that blow across the region in the late fall. Although dangerous, wildland fire is a natural process and a necessary part of the natural ecosystem of southern California.

Relatively few wildland fires have occurred in the urbanized areas of Palm Springs within the past ten years. However, between 1980 and 1994, four very large wildfires occurred in the San Jacinto Mountains and foothills along the western border of Palm Springs and its sphere of influence. These fires were the Dry Falls fire of 1980, the Tram Fire of 1985, and the Palm Fire of 1994. The Blaisdell Canyon Fire of 2005 burned more than 5,000 acres in the mountains above Palm Springs proper, threatening the Palm Springs Aerial Tramway area. Fortunately, these fires were mostly limited to undeveloped areas of rugged terrain.

Only one relatively small area in the northwest corner of the City of Palm Springs and its Sphere of Influence is designated as a State Responsibility Area (SRA). The CALFIRE have primary responsibility for fire protection in this area. Fire suppression in the remaining wildland areas in and near Palm Springs is the responsibility of the USDA Forest Service (USFS) and the Bureau of Land Management. The direct protection area assignments affect firefighting resources in the City and should be a consideration in all fire hazard mitigation. Within the Palm Springs city limits, the western and southwestern portions of the City, specifically the neighborhoods located along the foothills and canyon mouths, are generally the most susceptible to wildland fire. Also susceptible to wildland fire are those areas with more vegetation, such as in the lower canyon reaches draining the San Jacinto Mountains, including Tachevah Canyon, Tahquitz Creek, Andreas Canyon, and Palm Canyon, where water may be more plentiful.

4.4.18 Landslide

Severity – 3, Probability – 2, Ranking – 18

Slope instability could be a widespread hazard in the City if the areas of the San Jacinto and Santa Rosa mountains within city limits were open to development. However, since most of these highlands have been set aside as a preserve, little development is expected to occur within the mountainous areas that are moderately to highly susceptible to slope instability. Slope stability issues do pose a concern along the developed areas of the City that abut mountainous terrain, including roads, like Highway 111, that are along the base of the slopes. Intense rainfall, ground shaking, and other environmental factors, including time, can cause boulders to fall or roll onto these areas, posing a threat to structures and passing motorists. Planning for developments and infrastructure placed in these areas should be supported by site-specific geotechnical analyses for slope stability. Careful land management in hillside areas can reduce the risk of economic and social losses from slope failures.

Slope failure is the down slope movement of rock, debris, and soil in response to gravitational stresses and pressures. Slope failures can occur on natural or manmade slopes. For manmade slopes, most failures occur on older slopes, many of which were built at slope gradients steeper than those allowed by today's grading codes. Although infrequent, failures can also occur on newer, graded slopes, generally due to poor engineering or poor construction.

The potential for slope failure is dependent on many factors. Some of the most important factors include slope height, slope steepness, and the strength of weaker layers of soil underlying the slope. Heavy and prolonged rainfall, erosion,

undercutting by streams, manmade alterations to the slope, and seismic shaking all contribute to conditions in which slope failures are likely to occur.

Potential as well as past landslides pose risks to the Palm Springs area. Landslides are downward movements of mixes of bedrock blocks, fragments, debris, and soils. Large landslide deposits are present in the San Jacinto and Santa Rosa Mountains, but only one landslide deposit has been identified in the Palm Springs area. This deposit is located in the San Jacinto Mountains overlooking Blaisdell Canyon. Failed slopes in northwestern area of Palm Springs resulting from the 1986 North Palm Springs earthquake also pose risks for potential landslides and other associated hazards, such as compressible soils. In addition, the foothills and mountains adjacent to Palm Springs have steep slopes along which landslides and other slope failures can occur during or after periods of intense rainfall or in response to strong seismic shaking. Areas of high topographic relief, such as steep canyon walls, are most likely to be impacted by rock falls, rockslides, soil slips, and to a lesser degree, large landslides. Likewise, locations in the Garnet Hill and Whitewater Hill areas contain unstable soil types along which slope failures could occur.

During exceptional storm periods or prolonged rainfall, the risk of debris flow increases. Debris flows are the most dangerous and destructive type of slope failure, generally consisting of rapidly moving slurry of water, mud-rock, vegetation, and debris. This type of slope failure usually occurs during an intense rainfall event, following saturation of the soil by previous rains.

Rock falls are free-falling or tumbling masses of bedrock that have broken off steep canyon walls or cliffs. Rock falls can happen wherever fractured rock slopes have become steep from stream erosion or human activities. This hazard is present in the hills that frame the southern part of the Coachella Valley, along the southwestern portions of Palm Springs. Rock falls can occur suddenly and without warning, but are more likely to occur in response to earthquake-induced ground shaking, during periods of intense rainfall, or as a result of human activities such as grading and blasting

4.4.19 Jail/Prison Event

Severity – 0, Probability – 0, Ranking – 19

The City's Police Department does not have a jail or prison. The Police Department does have temporary holding cells before being transported to a County Jail.

4.4.20 Nuclear Incident

Severity – 2, Probability – 1, Ranking – 20

The City is not within a nuclear power plant response area but does have a hospital with have radioactive materials for medical procedures. There is a potential for this material to be stolen and be used in a terrorism incident.

SECTION 5.0 – COMMUNITY RATING SYSTEM

The National Flood Insurance Program's (NFIP) Community Rating System (CRS) is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. As a result, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community actions meeting the three goals of the CRS:

- Reduce flood losses;
- Facilitate accurate insurance rating; and
- Promote the awareness of flood insurance.

5.1 REPETITIVE LOSS PROPERTIES

There were NO repetitive loss properties in the City based on the information from FEMA Repetitive loss data last updated in 2016. From 2018 through December 2021 the City had NO repetitive loss properties that were outside of a flood plain.

5.2 NATIONAL FLOOD INSURANCE PROPERTIES

a. Describe participation in NFIP, including any changes since previously approved plan.
   There is a yearly review and five-year cycle review to make sure the City in being reactive and proactive to issues relating to flood hazards in the area through major storm event pre/post data, record keeping of construction related certificates and permits, storm drain and channel maintenance, and community awareness of NFIP and requirement for flood insurance in Special Flood Hazard Area (SFHA). Major changes have been with technology and the ease of access and dissemination of flood maps, flood proofing and flood prevention information, flood insurance information for single-family and multi-family homeowners and renters, and FEMA forms, applications, and publications through the internet and web-based media.

b. Date first joined NFIP.
   The City joined the National Flood Insurance Program on December 11, 1970.

c. Identify actions related to continued compliance with NFIP.
   Making sure that FEMA and local applications and permits related to properties in an SFHA are filled out properly and local agency and DFIRM information is correct, keeping logs and records on all activities in SFHA area, keeping maintenance records related to small and large storm drain and flood channel systems within the City limits, using print, web, and television based media outlets to inform the public about flood hazards and the need for flood insurance if they are in or near a flood zone, and monitoring State, County and

local warning systems. We've increased our community awareness program significantly in the last 5 years.

d. CRS member?
Yes, CRS Community Number 060257

e. CRS class?
The City has a CRS Class rating of 6, garnering the citizens of Palm Springs in a Special Flood Hazard Area (SFHA) a 20% discount on flood insurance. This rating was updated in October 2021 from the 5-year Cycle visit in 2026.

f. Describe any data used to regulate flood hazard area other than FEMA maps.
The City acquires data from the Riverside County Flood Control and Water Conservation District. This agency regulates and maintains large storm drains and flood channels within the entire Coachella Valley. ESRI GIS Online is used in combination with weather and United Stated Geological Survey (USGS) maps to determine possible localized flooding areas within the City of Palm Springs for residents.

g. Have there been issues with community participation in the program?
The biggest one is the complacency of the City's full-time and seasonal residents living in a desert environment that may get a major storm incident once a year.

The community has been generally receptive to the annual newsletter that is included in their Flood Protection and Insurance Information newsletter included in their Fall Palm Springs Disposal quarterly bill. There is usually a flood of calls for up to two months afterwards from residents asking if they are in an SFHA zone. There was an especially large surge in requests due to the threat of El Nino during the rainy months. There has been some backlash with residents who own condominiums in an SFHA. Condo owners who never had to carry flood insurance are now being asked to. Flood insurance rule changes as they apply to condominiums are adversely affected the selling and buying of their properties.

h. What are the general hurdles for effective implementation of the NFIP?
As with most desert cities, the residents are apathetic to the flooding risk in the Coachella Valley. Flooding in the Midwest and Eastern states are localized around rivers and tributaries during Fall and Winter storm events and Spring and Summer runoff. There are no such catalysts in our area. Even less so

with the decade long drought that has plagued the western states. Flooding the valley is linked to large storm events that are far and few between. Historically, there have been devastating floods that have washed through the desert, but there has been no dramatic flooding in the valley in the last 40 years. Consequently, flood protection and preparation are low on their list priorities.

i. Repetitive Loss Properties

The last repetitive loss properties were four properties that submitted claims between 1995 and 1996. The Repetitive Lost list was last updated on or before June 30, 2008 and these properties had been removed because of the implementation of mitigation Measure E.

j. Digital Flood Information Maps – DFIRMs

On September 28, 2007, the Federal Emergency Management Agency (FEMA) issued a new set of Digital Flood Information Maps (DFIRMs). The City of Palm Springs was asked to review them for accuracy prior to final issuance of the maps. The City of Palm Springs reviewed the DFIRMS but had no comments at the time. The final DFIRM maps were issued on August 28, 2008 by FEMA in electronic format along with accompanying GIS location files.

The Public Works department uses these DFIRMS to verify flood zones for customers who walk in, email, or phone for the information. The City has created a DFIRM Flood Zone Information form that identfies the property address, legal description, Assessor's Parcel Number, Flood Zone and whether they are in or out of a Special Flood Hazard Area (SFHA). Per the requirements of the NFIP/CRS certification requirments, the City keeps a log of all Flood Zone Information requests on file.

There are 21 DFIRM Panels that encompass the City of Palm Springs city limits (NFIP/CRS Community No. 060257). There are 16 panels that encompass the developed portions of the City. Some of the panels fall under the community indexes for Riverside County (RC), the City of Desert Hot Springs (DHS), the City of Palm Springs (PS), the City of Cathedral City (CC), the Agua Caliente Band of Cahuilla Indians (ACBCI), and the City of Rancho Mirage (RM), or any combination of these. The list of DFIRM panels is as follows:

06065C0870G (RC-CPS)	06065C1559G (PS-ACBCI)
06065C0890G (RC-CPS)	06065C1565G (RC-PS-ACBCI)
06065C0895G (RC-PS-DHS)	06065C1566G (PS-ACBCI)
06065C1535G (RC-PS)	06065C1567G (PS-ACBCI)
06065C1551G (RC-PS-ACBCI)	06065C1569G (RC-PS-ACBCI)
06065C1552G (RC-PS-ACBCI)	06065C1576G (RC-CC-PS-ACBCI)

06065C1553G (RC-PS-ACBCI)
06065C1554G (RC-PS-ACBCI)
06065C1556G (PS-ACBCI)
06065C1557G (PS-ACBCI)
06065C1558G (PS-ACBCI)
06065C1577G (CC-PS-ACBCI)
06065C1586G (CC-PS-ACBCI)
06065C1588G (CC-PS-ACBCI-RM)
06065C1588G (CC-PS-ACBCI-RM)

SECTION 6.0 - CAPABILITIES ASSESSMENT

Capabilities are the programs and policies currently in use to reduce hazard impacts or that could be used to implement hazard mitigation activities. These capabilities assessment is divided into five sections –

- Regulatory Mitigation Capabilities
- Administrative And Technical Mitigation Capabilities
- Fiscal Mitigation Capabilities
- Mitigation Outreach and Partnerships
- Funding Sources

6.1 REGULATORY MITIGATION CAPABILITIES

These capabilities can be expanded and improved by incorporating hazard information into the pending General Plan update. Implement a process to ensure mitigation actions identified in the hazard mitigation plan are reviewed as part of the update to the City's Capital Improvement Program, Continuity of Operations Plan, and Emergency Operations Plan. This coordination would identify information that should be included in future updates.

REGULATORY TOOL	YES/NO	COMMENTS
General plan	Yes	Comprehensive General Plan for the Palm Springs completed in 2007. Utilized safety elements to incorporate and develop mitigation strategies. Currently under revision with an anticipated plan update by the end of 2024.
Zoning ordinance	Yes	http://www.qcode.us/codes/palmsprings/view.php?topic=zoning_code&frames=on Utilized for development trends and community planning for mitigation of know hazards.
Subdivision ordinance	Yes	Planning Department Utilized for development trends and community planning for mitigation of know hazards.
Site plan review requirements	Yes	Planning Department Utilized for development trends and community planning for mitigation of know hazards.
Floodplain ordinance	Yes	Adopted Ordinance 1739 on March 12, 2008 http://www.qcode.us/codes/palmsprings/view.php?topic=8-8_68&frames=on= Implementation of national flood insurance

		program (NFIP) for mitigation of flood damage.

Other special purpose ordinance (storm water, water conservation, wildfire)	Yes	• Multiple Species Habitat Conservation Plan http://www.qcode.us/codes/palmsprings/view.php?topic=8-8_95&frames=on
		  • In order to realize the goals and objectives of the Coachella Valley Multiple Species Habitat Conservation Plan/Natural Community Conservation Plan (“MSHCP”) and to mitigate the impacts caused by new development in the City, lands supporting species covered by the MSHCP must be acquired, monitored and managed in order to achieve habitat conservation in perpetuity.
		• Historical Preservation http://www.qcode.us/codes/palmsprings/view.php?topic=8-8_05&frames=on
		  • Purpose of preserving areas and specific buildings of the city which reflect elements of its cultural, social, economic, political, architectural and archaeological history. This chapter is intended to stabilize and improve buildings, structures or areas which are considered to be of historical, architectural, archaeological or ecological value, to foster civic beauty, to strengthen the local economy and to promote the use of specific buildings for the education and welfare of the citizens.
		• Fugitive Dust Control http://www.qcode.us/codes/palmsprings/view.php?topic=8-8_50&frames=on
		  • The purpose of this chapter is to establish minimum requirements for construction and demolition activities and other specified sources in order to reduce man-made fugitive dust and corresponding PM10 emissions.
		• Water Efficient Landscape

		http://www.qcode.us/codes/palmsprings/view.php?topic=8-8_60&frames=on • The purpose and intent of this chapter is to establish minimum water efficient landscape requirements for newly installed and rehabilitated landscapes. It is also the purpose of this Chapter to implement these minimum requirements to meet the state of California Code of Regulations Title 23. Water Division 2. Department of Water Resources Chapter 2.7 Model Water Efficient Landscape Ordinance and the state of California Water Conservation in Landscaping Act, Reference: California Government Code Sections 65591, 65593, 65596. • Storm Water Management and Discharge Controls http://www.qcode.us/codes/palmsprings/view.php?topic=8-8_70&frames=on • The purpose of this chapter is to ensure the future health, safety, and general welfare of the citizens of the city by: • 1. Regulating non-stormwater discharges to the municipal separate storm drain • 2. Controlling the discharge to municipal separate storm drains from spills, dumping or disposal of materials other than stormwater • 3. Reducing pollutants in stormwater discharges to the maximum extent practicable • 4. Protecting and enhancing the water quality of city watercourses, water bodies, groundwater, and wetlands in a manner pursuant to and consistent with the Clean Water Act.
Building code	Yes	http://www.qcode.us/codes/palmsprings/view.php?topic=8-8_04-i&frames=on Utilize approved California Building Codes 2016

		effective January 1, 2017.
Fire department ISO rating	Yes	Rating: 3
Erosion or sediment control program	No	N/A
Capital improvements plan	Yes	Capital improvements plan (CIP) Five year plan that is updated annually. Utilized to develop project budget, priorities, and develop mitigation strategies
Economic development plan	No	City participates in the Coachella Valley Association of Governments.
Local emergency operations plan	Yes	Emergency Operations Plan, 2012
Water Sewer	Yes	http://www.qcode.us/codes/palmsprings/view.php?topic=15&frames=on A purpose of this title is to establish regulations and procedures pertaining to the proper use and control of public sewers and the quality of industrial wastes and sewage discharged to the public sewers in the city. Proper collection and treatment of sewage is of vital concern to the health and welfare of residents and visitors to Palm Springs. Control of sewage and industrial waste discharged to public sewers is imperative so that treatment facilities can produce a product that will minimize adverse effects on groundwater supplies and meet the requirements of water quality control and public health agencies.
Flood Insurance Study or other engineering study for streams	Yes	City participates in the National Flood Insurance Program (NFIP)

Comprehensive General Plan for Palm Springs adopted in 2007.
The City of Palm Springs's General Plan reflects the City's long-range aspirations of physical form and amenity and provides guidance for developmental regulations, such as zoning and subdivision ordinances. The General Plan is considered a "long-term" plan since it looks 20 years or more into the future. The General Plan is under revision

throughout the year 2022. The City's charter status provides it with greater control over its future development and administration. Listed below are five of the eight identified goals, policies, and actions listed in the City's General Plan: Safety Element. These five relate to the highest hazards in the community or provide an overview of the mitigation efforts of the City.

Seismic Safety Considerations

Goal SA1: Reduce, to the greatest extent possible, the physical and environmental effects of seismic hazards within the City.

Policies

- SA1.1 Minimize the risk to life and property through the identification of potentially hazardous areas, adherence to proper construction design criteria, and provision of hazards information to all residents and business owners.
- SA1.2 Require geologic and geotechnical investigations in areas of potential seismic hazards such as fault rupture, seismic shaking, liquefaction, and slope failure, as part of the environmental and/or development review process for all structures, and enforce structural setbacks from faults that are identified through those investigations in accordance with the Seismic Hazards Mapping Act. Require subsurface investigations of the Garnet Hill fault if and as that area of northern Palm Springs is developed.
- SA1.3 Coordinate with the National Earthquake Hazard Reduction Program of the Federal Emergency Management Agency to identify earthquake risks and available mitigation techniques.
- SA1.4 Enforce the requirements of the California Seismic Hazards Mapping and Alquist-Priolo Earthquake Fault Zoning Acts when citing, evaluating, and constructing new projects within the City.
- SA1.5 Disallow the construction of buildings designed for human occupancy within 50 feet of an active fault and prevent new critical, sensitive, and high-occupancy facilities from being located within 100 feet of a potentially active fault.
- SA1.6 Maintain a strong, enforceable ordinance for upgrading unreinforced masonry buildings that is tailored to the local conditions in the City of Palm
- SA1.7 Require that engineered slopes be designed to resist earthquake-induced failure.
- SA1.8 Require that lifelines crossing a fault be designed to resist damage in the occurrence of fault rupture.
- SA1.9 Require removal or rehabilitation of hazardous or substandard structures that may collapse in the event of an earthquake, in accordance with the Unreinforced Masonry Law and other applicable regulations.
- SA1.10 Designate, where appropriate, hazard zones (earthquake fault lines, floodways and floodplains, steep or unstable slopes, areas susceptible to rock falls and landslides, etc.) as open space, and these areas on the land use map.
- SA1.11 Encourage and cooperate with Caltrans to stabilize susceptible slopes and strengthen bridges, elevated roadways, and other structures along state

highways, which may be subject to failure during major seismic events, thereby isolating portions of the community from emergency aid and assistance.

- SA1.12 Ensure that the highest and most current professional standards for seismic design are used in the design of Critical, Sensitive, and High-Occupancy facilities such as water tanks, dams, levees, and hospitals.
- SA1.13 Require liquefaction-assessment studies in those areas identified as being susceptible to liquefaction.
- SA1.14 Include liquefaction-mitigation measures in the construction of bridges, roadways, major utility lines, or park improvements in potentially liquefiable areas, such as the Whitewater riverbed or at the mouths of canyons.
- SA1.15 Determine the areas potentially subject to flooding in the event of a rupture of flood-control facilities in the Palm Springs area due to earthquake activity, especially where such facilities cross or are near active faults.

Actions

- SA1.1 Prepare a detailed geotechnical analysis for new construction and significant alterations to structures located in areas identified as being subject to slope failure, rock falls, or landslides.
- SA1.2 Participate with surrounding communities and applicable state and federal agencies to establish and maintain maps illustrating the location of seismic and geological hazard zones occurring within the City boundaries and sphere of influence.
- SA1.3 Initiate an educational public outreach program in coordination with local utility companies, the Coachella Valley Water District, the Desert Water Agency, the Palm Springs Unified School District, police and fire departments, and others outlining appropriate action before, during, and after earthquakes and other disasters.
- SA1.4 Keep the City's public awareness programs on natural-disaster management and emergency preparedness up-to-date on current hazards and issues and seek public participation in the development of hazard mitigation and disaster recovery programs.

Geologic Safety Considerations

GOAL SA2: Reduce, to the greatest extent possible, the physical and environmental effects of geologic hazards within the City.

Policies

- SA2.1 Minimize grading and otherwise changing the natural topography to protect public safety and reduce the potential for property damage as a result of geologic hazards.
- SA2.2 Require geologic and geotechnical investigations in areas of potential geologic hazards as part of the environmental and/or development review process for all structures.
- SA2.3 Limit the development of permanent slopes to the inclinations permitted by building codes.

- SA2.4 Analyze the stability of large temporary slopes prior to construction, and provide mitigation measures as needed.
- SA2.5 In the areas of Palm Springs susceptible to slope instability, require geotechnical investigations that include engineering analyses of slope stability, surface and subsurface drainage specifications, and detailed recommendations for fill placement and excavation.
- SA2.6 Prohibit the reconstruction of structures meant for human habitation that are damaged or destroyed by failed slopes unless the applicant can prove that the remedial measures proposed will improve slope conditions and make the site suitable for redevelopment.
- SA2.7 Conduct a focused assessment of the effect of debris flow hazards on individual structures located or planned in vulnerable positions, including canyon areas, the toes of steep, natural slopes, and the mouths of drainage channels.
- SA2.8 Require that new construction and significant alterations to structures located within potential landslide areas be evaluated for site stability, including the potential impact to other properties, during project design and review.
- SA2.9 In areas susceptible to rock falls or landslides, erect protective devices such as barriers, rock fences, retaining structures, or catchment areas.
- SA2.10 Participate in regional programs designed to protect groundwater resources and the regional groundwater basin from the hazard of regional ground subsidence.
- SA2.11 Protect slopes from the effects of erosion by directing surface water away from slope faces and planting slopes with drought-resistant, ground-covering vegetation.
- SA2.12 Adequately set back developments that are adjacent to natural drainage channels to protect them from eroding channel banks, or modify the channel to reduce the potential impacts created by erosion.
- SA2.13 Prohibit the construction of hilltop homes or structures above natural slopes at the head of steep drainage channels or gullies.
- SA2.14 Ensure the protection of structures placed near the bases of slopes or the mouths of small canyons, swales, washes, and gullies from sedimentation.
- SA2.15 Protect slopes within developed areas from concentrated water flow over the tops of the slopes by the use of berms or walls. Engineer all ridge-top building pads to direct drainage away from slopes.
- SA2.16 Provide protection for roadways and utility lines from erosion and sedimentation.
- SA2.17 Encourage the incorporation of wind barriers, architectural design or features, and drought-resistant ground coverage in new development site designs to mitigate the impacts from erosion and windblown sand.

Actions

- SA2.1 Establish and maintain maps illustrating the location of geologic hazard zones occurring within the City boundaries and sphere of influence in coordination with the California Division of Mines and Geology and the United States Geological Survey (USGS).

- SA2.2 Initiate a public education program that focuses on reducing losses from geologic hazards, including the importance of proper irrigation practices and the care and maintenance of slopes and drainage devices.
- SA2.3 The City Engineer shall conduct regular inspection of grading operations to maximize site safety and compatibility with community character.
- SA2.4 Develop and implement a groundwater monitoring program to combat ground subsidence as a result of groundwater withdrawal.

SA2.5 Establish ordinances and guidelines to reduce the hazards from windblown sand and dust.

Flood and Dam Indentation Hazards

GOAL SA3: Reduce, to the greatest extent possible, the risk to life, property, and essential facilities from flooding and other hydrological hazards within the City.

Policies

- SA3.1 Provide appropriate land use regulations and site-development standards for areas subject to flooding.
- SA3.2 Evaluate all development proposals located in areas that are subject to flooding to minimize the exposure of life and property to potential flood risks.
- SA3.3 Require that future planning for new development consider the impact on flooding potential as well as the impact of flood control structures on the environment, both locally and regionally.
- SA3.4 Continue to work with the Federal Emergency Management Agency, Riverside County Flood Control and Water Conservation District, the Coachella Valley Water District, and the United States Army Corps of Engineers to receive and implement updated flood-control measures and information.
- SA3.5 The City shall provide drainage controls and improvements that enhance local conditions and are consistent with and complement the Regional Master Drainage Plan and ensure that updated and effective Master Drainage Plans are implemented in a timely fashion.
- SA3.6 The City shall establish Area Drainage Plans for purposes of funding needed drainage improvements benefiting defined tributary areas of the community.
- SA3.7 Provide direction and guidelines for the development of on-site storm water retention facilities consistent with local and regional drainage plans and community design standards.
- SA3.8 Implement the regulations of the City of Palm Springs Flood Damage Prevention Ordinance (Sections 93.17.00 et seq.) to minimize public and private losses for properties within 100-year flood zone areas.
- SA3.9 Continue to utilize the Emergency Announcement System to implement flood warnings and evacuation plans for those portions of the 100- and 500-year flood zones that have already been inhabited or developed and for critical facilities such as schools.

- SA3.10 Apply for mitigation funding for design and construction to ensure emergency evacuation routes are constructed to appropriate all-weather standards.
- SA3.11 Design underground storm drains serving local neighborhoods to accommodate runoff from a 10-year frequency storm for conveyance to a downstream outlet and locate them in existing or proposed street rights-of-way where possible. Flows exceeding the 10-year frequency storm will be carried within public rights-of-way.
- SA3.12 Design flood-control facilities so that biological impacts are minimized and locally significant habitat are either avoided or replaced.
- SA3.13 Discourage the introduction of flood-control measures in the undeveloped areas of Palm Springs at the expense of environmental degradation.
- SA3.14 Continue to leave existing watercourses and streams natural wherever possible by developing them as parks, nature trails, golf courses, or other types of recreation areas that could withstand inundation and provide for their enhancement as wildlife habitat.
- SA3.15 In conjunction with the Coachella Valley Water District and the Riverside County Flood Control District, assure that design opportunities for enhanced open space and recreation amenities, including habitat enhancement, hiking, and equestrian trails, are fully explored and incorporated when designing and constructing channels, debris and detention basins, and other major drainage facilities, to the greatest extent practical.
- SA3.16 Require the extensive landscaping of open-space areas in new development, provide the maximum permeable surface area to reduce site runoff, and prohibit unnecessary paving.
- SA3.17 Continue to participate in the National Flood Insurance Program.

Actions

- SA3.1 With assistance from the Coachella Valley Water District and the Riverside County Flood Control and Water Conservation District, develop and continually update a Regional Master Drainage Plan for the City, providing these entities with land use and other relevant data and information.
- SA3.2 Establish and/or update local regulations and guidelines to direct the management of runoff and provide for local drainage facilities that tie into and maximize the effective use of regional drainage facilities.
- SA3.3 Adopt or update local drainage policies and development standards that reduce the rate of runoff from developed lands that is consistent with capacities of public facilities and local and regional management plans, while providing opportunities for open space enhancement and multi-use.
- SA3.5 Inspect bridges before and after a flood event to determine whether or not there is scouring damage that could impact their foundations.
- SA3.6 Investigate the feasibility for additional all-weather crossings of the major drainage channels: e.g., Indian Canyon Drive, Gene Autry Trail, and Vista Chino across the Whitewater River.

- SA3.7 With assistance from the Coachella Valley Water District, file the appropriate FEMA application materials and secure amendments to Flood Insurance Rate Maps as improvements are made to flood-control facilities or as changes in property elevations occur that warrant such considerations.
- SA3.8 Develop a public outreach program to inform property owners about the potential for flooding in their area, including potential flooding of access routes to and from their neighborhoods.

Wildland Fire

GOAL SA4: Protect the lives and property of residents, business owners, and visitors from the hazards of urban and wildland fires.

Policies

- SA4.1 Assess the need for greenbelts, fuel breaks, fuel reduction, and buffer zones around existing and newly proposed communities to minimize potential losses created by fires.
- SA4.2 Support brush removal and weed abatement in developed areas to minimize fire risk, and coordinate with the Riverside County Fire Department Hazard Reduction Office regarding jurisdictional issues relating to brush removal.
- SA4.3 Continue to classify areas of varying fire-hazard severity based upon the proximity to open wildland slope, grades, accessibility, water supply, and building construction features.
- SA4.4 Require property owners adjacent to wildland areas to maintain a defensible space around structures that is free from dry brush and other flammable materials and to comply with the 100′ Defensible Space Requirement in the Public Resources Code (PRC 4291) and Government Code (GC 51182) for fuel modification to reduce fire danger.
- SA4.5 Continue to conduct long-range fire safety planning, including enforcement of stringent building, fire, subdivision, and other Municipal Code standards; improved infrastructure; and mutual-aid agreements with other public agencies and the private sector.
- SA4.6 Continue to refine procedures and processes to minimize the risk of fire hazards by requiring new and existing development to:
  - Utilize fire-resistant building materials
  - Incorporate fire sprinklers as appropriate
  - Incorporate defensible-space requirements
  - Comply with Riverside County Fuel Modification Guidelines
  - Provide Fire Protection Plans
  - Develop fuel modification in naturalized canyons and hills to protect life and property from wildland fires, yet leave as much of the surrounding natural vegetation as possible; and
  - Use selective trimming and obtain permits when necessary in designated areas to preserve environmentally sensitive native plants.

- SA4.7 Encourage owners of non-sprinkler properties, especially midrise structures and high-occupancy structures, to retrofit their buildings and include internal fire sprinklers.
- SA4.8 Ensure that public and private water distribution and supply facilities have adequate capacity and reliability to supply both every day and emergency firefighting needs.
- SA4.9 Utilize reservoirs, tanks, and wells for emergency fire suppression water sources.
- SA4.10 Ensure that fuel modification and controlled fire burns are consistent with any adopted habitat-conservation plans.
- SA4.11 Ensure adequate firefighting resources are available to meet the demands of new development, including the construction of midrise structures, by ensuring that:
  - Response times do not exceed desired levels of service
  - Fire-flow engine requirements are consistent with Insurance Service Office (ISO) recommendations
  - The heights of truck ladders and other equipment are sufficient to protect multiple types of structures.
- SA4.12 As areas of the City and its sphere of influence are developed, construction of new fire stations should be considered so that the Fire Department can continue to respond to any emergency call within six minutes of receiving the call at dispatch.
- SA4.13 Continue public education efforts to inform residents, business owners, and visitors of fire hazards and measures to minimize the damage caused by fires to life and property.

Actions

- SA4.1 Evaluate the adequacy of access routes to and from fire hazard areas relative to the degree of development or use (e.g., road width, road type, length of dead-end roads, etc.).
- SA4.2 Develop education and mitigation strategies that focus on the enhanced or higher hazard present in the summer and fall, when dry vegetation and hot, windy weather coexist.
- SA4.3 Regularly evaluate specific fire-hazard areas and adopt reasonable safety standards, covering such elements as adequacy of nearby water supplies, routes or throughways for fire equipment, clarity of addresses and street signs, and maintenance.
- SA4.4 Form a task force to review the adequacy of the City's water-storage capacity and distribution network in the event of an earthquake. Redundant systems should be considered and implemented in those areas of the City where ground failure could result in breaks to both the water and gas mains, with the potential for significant conflagrations.

Disaster Preparedness and Recovery

GOAL SA8: Reduce the risk to life, property, and essential facilities through emergency preparedness and public awareness.

Policies

- SA8.1 Take measures to reduce the level of death, injury, property damage, economic and social dislocation, and disruption of vital services that would result in the event of a major disaster.
- SA8.2 Ensure, to the fullest extent possible, that in the event of a major disaster, essential structures and facilities remain safe and functional.
- SA8.3 Require that proposed essential, sensitive, and high-occupancy facilities undergo careful seismic review prior to any approvals and that earthquake survival and efficient post disaster functioning be a primary concern in the citing, design, and construction standards for essential facilities.
- SA8.4 Encourage the local gas and water purveyors to review and retrofit their main distribution pipes, with priority given to those lines that cross or are located near the mapped traces or of the Banning and Garnet Hill faults, in order to maintain lifelines.
- SA8.5 Prohibit the location of new essential, sensitive, and high-occupancy facilities within 100 feet of an active or potentially active fault, or require compensating design characteristics where fault identification is not feasible.
- SA8.6 Coordinate disaster preparedness and recovery with other governmental agencies and continue to cooperate with Cathedral City, Riverside County, the State of California, and the various federal agencies to provide cooperative police and fire assistance in emergency situations.
- SA8.7 Maintain effective mutual- and automatic-aid agreements for fire, police, medical response, public works, building inspection, mass care, and heavy rescue.
- SA8.8 Prepare the community to respond to emergencies by conducting public outreach programs such as CERT.
- SA8.9 Urge owners and managers of hotels and restaurants and other places of public assembly to maintain CPR-certified employees on their staffs.
- SA8.10 Enlist the cooperation of the business community to develop its own disaster response plans and have provisions for food, water, first aid, and shelter for employees who may not be able to return home for several days following a major earthquake.
- SA8.11 Formulate and maintain police, fire, evacuation, hospitalization, and recovery programs in response to a natural gas leakage and/or explosion, railroad accident, earthquake, or other similar event.
- SA8.12 Plan for and facilitate the rapid and effective recovery of the City following a disaster, prevent the recurrence of specific problems and hazards encountered during a disaster, and plan for alternative sources of financing for reconstruction.
- SA8.13 Establish the mitigation of hazards as a high priority for City programs, both before and after a disaster.

- SA8.14 Evaluate the adequacy of access routes to and from hazard areas relative to the degree of development or use (e.g., road width, road type, length of dead-end roads) and evaluate the sufficiency of signage related to public safety and evacuation.
- SA8.15 Include procedures for traffic control, emergency evacuations and housing, and security of damaged areas in all disaster response plans.
- SA8.16 Evaluate new developments for their ability to provide proper police and fire protection. Project review should include, but is not limited to, adequacy of internal circulation systems and provision of project directories, street names, and numbering systems.
- SA8.17 The City will continue to participate in the Master Mutual Aid Agreement for the provision of emergency fire protection services.
- SA8.18 Establish a six-minute response time for the first-due engine company and an eight-minute response time for a full-alarm assignment in compliance with NFPA 1710.
- SA8.19 Use percentage of completion goals as the standard for the distribution and concentration of fire crews throughout the City, as recommended in the Standards for Response Cover Deployment Analysis for the City of Palm Springs Fire Department.
- SA8.20 Ensure that new development does not result in a reduction of law enforcement or fire protection services below acceptable levels.
- SA8.21 Analyze the site plan layout for new projects to ensure they provide an adequate amount of defensible space around structures.
- SA8.22 Continue to regulate and enforce the installation of fire protection water system standards for all new construction projects built within the City. Standards shall include the installation of fire hydrants providing adequate fire flow, fire sprinkler systems, and wet and dry on-site standpipe systems.
- SA8.23 Develop an ongoing fire protection water system program that will provide adequate water supply for firefighting purposes within the City.
- SA8.24 Require all new commercial and multiple-unit residential development to install fire protection systems and encourage the use of automatic sprinkler systems.
- SA8.25 Require all new construction to use noncombustible roofing materials.
- SA8.26 Require that all new buildings incorporate adequate egress systems into project design and encourage existing structures to upgrade existing exit systems.
- SA8.27 The Fire Department should develop requirements for existing and future development occurring in wildland-urban interface areas. These requirements include, but are not limited to, the use of noncombustible (Class A) roofing materials, thermal pane or safety glass for glazing purposes, and drought- and fire-resistant landscaping.
- SA8.28 Developers of property on or abutting hillsides shall implement, with consultation and approval from the City Fire Department, a safety buffer zone, otherwise known as a fuel-modification zone, between natural open space and planned development to lessen the fire hazard potential in these interface areas.

- SA8.29 Ensure adequate provision of public information to residents and businesses on actions to minimize damage and facilitate recovery from a natural disaster.
- SA8.30 Continue to conduct public outreach efforts to prepare the community and provide them with guidance on how to respond to natural disasters.

Actions

- SA8.1 Assess existing essential and sensitive facilities with significant seismic vulnerabilities, and upgrade, relocate, or phase them out as appropriate.
- SA8.2 Develop, maintain, and continually update a Citywide, coordinated, responsive, and effective emergency- and disaster-preparedness, response and implementation plan to assure a high degree of readiness to respond to and recover from daily emergencies, major catastrophes, and disastrous events.
- SA8.3 Implement the Emergency Response Plan adopted by the City incorporating the following three emphases: hazard mitigation, disaster response, and self-sufficiency/mutual support of residents, business, and industry.
- SA8.4 Ensure the availability of both the Safety Element and City emergency-preparedness plans to employers and residents of Palm Springs.
- SA8.5 Exercise and upgrade the City's disaster responses plans and, at least annually, conduct periodic exercises to evaluate their practicality and effectiveness.
- SA8.6 Conduct earthquake- and disaster-response exercises at least once a year using the adopted emergency management system.
- SA8.7 Establish a standing committee for disaster recovery to provide contingency planning for the rapid and effective reconstruction of the City of Palm Springs following a disaster. The committee shall include representatives of the City Council, Planning Commission and appropriate City staff.
- SA8.8 Guidelines shall be developed by the Disaster Recovery Committee for the exercise of emergency authorities for such purposes as:
  - rapid designation of redevelopment areas;
  - revision of land use, circulation and parking requirements, and institution of other programs for improving the community environment;
  - adoption and institution of special programs for disaster recovery;
  - funding of disaster recovery measures;
  - moratoria on reconstruction in any high-hazard areas where damage could be repeated in aftershocks or in future earthquakes;
  - amendments to codes and ordinances;
  - establishment of Geologic Hazard Abatement Districts, as appropriate; and
  - designation of sites for temporary housing (e.g., travel trailers and prefabricated construction) of households made homeless in a disaster, in cooperation with the Disaster Housing Program of the Federal Emergency Management Agency.
- SA8.9 Solicit state and federal funds to implement the City's disaster programs as such revenues become available.

- SA8.10 The Fire Department should develop the capability to place 40 to 50 trained and equipped firefighters on scenes of major fires within 30 minutes of receipt of alarm, through the development of a reserve force, off-duty recall of firefighting personnel, and mutual aid.
- SA8.11 Formulate and implement a fire safety and emergency evacuation program for multistory structures. Such a program should include zoning and building code requirements for the use of sprinklers, smoke alarms, and emergency evacuation stairways and other routes, fire-resistant building materials, architectural design elements that do not obstruct or hinder emergency access, and other pertinent components.
- SA8.12 Conduct a study to identify the types of systems that can be installed in existing commercial and multifamily residential buildings where automatic sprinkler and other fire protection systems do not exist and evaluate their feasibility for implementation.
- SA8.13 Train multilingual personnel to assist in evacuation and other emergency response activities to meet the community need.

6.2 ADMINISTRATIVE/TECHNICAL MITIGATION CAPABILITIES

The Administrative and Technical capabilities can be expanded and improved on to reduce risk through coordination with department managers during the annual review of the LHMP and as the City progresses towards implementation. This coordination would identify information that should be included in future updates. Specifically, the City could increase staff capabilities in geographic information system (GIS) and additional emergency management personnel. The City has proposed additional positions for the Fiscal Year 2023-2-25 budget cycle.

PERSONNEL RESOURCES	YES/NO	DEPARTMENT/POSITION
Planner/engineer with knowledge of land development/land management practices	Yes	Planning Department Engineering Services
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	Engineering Services
Engineer with an understanding of natural hazards	Yes	Engineering Services
Personnel skilled in GIS	Yes	Engineering Services Planning Department/ GIS Analyst
Full time building official	Yes	Building Department: Director of Building and Safety

Floodplain manager	Yes	Engineering Services/Engineering Assistant
Emergency manager	Yes	Fire/Emergency Management Coordinator
Grant writer	No	
GIS Data—Land use	Yes	Information Technology Department GIS Analyst
GIS Data—Links to Assessor's data	Yes	Information Technology Department GIS Analyst
Warning systems/services (Reverse 9-11, outdoor warning signals)	Yes	Everbridge: Fire, Police, and can launch calls, texts, TTY, and emails to residents and businesses. Nextdoor: Police and Fire Twitter: Police City Radio Station: AM 1690 City TV Station: Channel 17 on Time Warner/Spectrum

6.3 FISCAL MITIGATION CAPABILITIES AND FUNDING OPTIONS

Fiscal capabilities can be expanded and improved on to reduce risk through coordination with department managers during the annual review of the LHMP and as the City progresses towards implementation. This coordination would identify information that should be included in future updates. The below table identifies fiscal tools and resources that the City could potentially use to help fund mitigation activities.

FINANCIAL RESOURCES	ACCESSIBLE/ELIGIBLE TO USE (YES/NO)	COMMENTS
Community Development Block Grants	Yes	Must meet eligibility requirements
Capital improvements project funding	Yes	
Authority to levy taxes for specific purposes	Yes	With voter approval
Fees for water, sewer, gas, or electric services	N/A	City contracts out for Wastewater Treatment
Impact fees for new development	Yes	
Incur debt through general	Yes	With voter approval

obligation bonds		
Incur debt through special tax bonds	Yes	With voter approval
Incur debt through private activities	No	
Withhold spending in hazard prone areas	Yes	
Other	Yes	

The City uses a variety of sources for mitigation projects to include the City's General Fund, local and regional taxes, Regional funding through partnerships with Riverside County Flood Control, state funding through partnerships with CalTrans, and federal funding through the federal highway administration. The City has identified the below grant programs as potential sources of additional funding for mitigation projects. The City could improve mitigation capabilities through the use of a grant writer or additional emergency management staff that can focus on grant management.

The Hazard Mitigation Grant Program (HMGP) is authorized by Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended (the Stafford Act), Title 42, United States Code (U.S.C.) 5170c. The key purpose of HMGP is to ensure that the opportunity to take critical mitigation measures to reduce the risk of loss of life and property from future disasters is not lost during the reconstruction process following a disaster. HMGP is available, when authorized under a Presidential major disaster declaration, in the areas of the State requested by the Governor. The amount of HMGP funding available to the applicant is based upon the estimated total Federal assistance to be provided by FEMA for disaster recovery under the Presidential major disaster declaration. California is eligible to apply for up to 20% of the cost of recovery for the declared disaster.

The Flood Mitigation Assistance (FMA) Program was authorized by Section 1366 of the National Flood Insurance Act of 1968, as amended (NFIA), 42 U.S.C. 4104c, with the goal of reducing or eliminating claims under the National Flood Insurance Program (NFIP).

The Pre-Disaster Mitigation (PDM) Program is authorized by Section 203 of the Stafford Act, 42 U.S.C. 5133. The PDM program is designed to assist States, Territories, Indian Tribal governments, and local communities with implementation of sustained pre-disaster natural hazard mitigation programs to reduce overall risk

to the population and structures from future hazard events, while also reducing reliance on Federal funding from future disasters. Funding for the PDM Program is allocated annually in the federal budget.

On July 6, 2012, President Obama signed the Biggert-Waters Flood Insurance Reform Act of 2012, which combined the SRL funding into the FMA program, and created a combined National Flood Mitigation Fund. The PDM, FMA and SRL programs are subject to the availability of appropriation funding, as well as any program specific directive or restriction made with respect to such funds.

6.4 MITIGATION OUTREACH AND PARTNERSHIPS

The City of Palm Springs Fire Department conducts Community Emergency Response Team (CERT) training three times a year. The training provides residents with the skills that they will need after a disaster to help themselves and their neighbors. To maintain the skills of those that have completed the 20-hour, monthly refreshers classes are offered generally six times a year. CERT trained volunteers may offer assistance to the City of Palm Springs during hazardous situations. The City could increase its education and outreach programs with additional emergency management staff and/or increased training opportunities. The City maintains relationships with ADA and AFN organizations to ensure training opportunities for those communities. The City works with a variety of groups to improve the quality of life for residents and visitors. The City actively uses a variety of communication tools to educate and inform residents and visitors on a variety of disaster preparedness topics.
The City of Palms Springs Fire Department has Memorandums of Understand with the following agencies:

- Master Mutual Aid System
- California Fire Assistance Agreement
- California Master Cooperative Wildland Fire Management and Stafford Act

The City of Palms Springs Police Department has Memorandums of Understand with the following agencies:

- Master Mutual Aid System

The City of Palms Springs Emergency Management Department has Memorandums of Understand with the following agencies:

- American Red Cross
- Palm Springs Unified School District
- Team Rubicon

- Coachella Valley Disaster Preparedness Network

SECTION 7.0 - MITIGATION STRATEGIES

7.1 GOALS AND OBJECTIVES

The City of Palm Springs coordinated through the Riverside Country Emergency Management Department and multiple other cities and agencies throughout Riverside County in the update of the LHMP. The cooperation and discussions both in regional meetings, community outreach, and internal meetings allowed a global perspective and a local jurisdictional perspective to identify additional exposures and hazards within our jurisdiction. The overall mitigation strategy is to leverage those mitigation capabilities identified in this plan to reduce the loss of life, property damage, and economic impact to the City.The City of Jurisdiction's mitigation goals and objectives are the following:

- ❖ Goal 1: Flood Gates
  - Objective 1.1: Identify critical roadways that are in known flood control channels.
  - Objective 1.2: Design and install gates that can be closed to prevent the public from using specific flood control areas during a flood incident.
- ❖ Goal 2: Interoperability
  - Objective 2.1: Update the City's cellular provider contract to ensure readiness and deployable of Cellular on Wheels (COWs) after a disaster.
  - Objective 2.2: Maintain participation the radio MOUs within the Coachella Valley to ensure a common radio operational frequency after a disaster
  - Objective 2.3: Identify critical infrastructure that is required for Public Safety Answering Point (PSAP) and City's 800 MHz and Fire Department VHF radios after a disaster.
- ❖ Goal 3: Emergency Electrical Power
  - Objective 3.1: In order for the City to be self-sufficient during the response and recovery phases of an incident ensure that the Primary Critical City facilities have at least two sources of obtaining electricity.
  - Objective 3.2: Create a new co-generation site.
  - Objective 3.3: Identify other electric producing sources
  - Objective 3.4: Have a majority of the City buildings on electricity that is generated by the City.
- ❖ Goal 4: Building Codes
  - Objective 4.1: Update and enforce building codes related to public safety and welfare.
  - Objective 4.2: Maintain knowledge of upcoming and coming changes to codes based on previous disasters.
- ❖ Goal 5: Shelter and Disaster Assistance Centers

- Objective 5.1: Pre-identify shelters that meet the Access and Functional Needs guidance from FEMA.
- Objective 5.2: Leverage grants to modify facilities and obtain equipment for the shelters.
- Objective 5.3: Develop a plan on how to open and operate a shelter.

7.2 MITIGATION ACTIONS

The City uses a variety of sources for mitigation projects to include the City's General Fund, local and regional taxes, Regional funding through partnerships with Riverside County Flood Control, state funding through partnerships with CalTrans, and federal funding through the federal highway administration. Below are the proposed mitigation actions for the 2023 to 2027 LHMP cycle to address the greatest needs of the City. The City's top concern is major flood events due to the frequency of flooding in the City. The City's Emergency Management Coordinator will continue working with all City departments, regional stakeholders, and public/private partnerships on mitigation actions and strategies. The City plans to increase the emergency management staff to pursue additional hazard mitigation grant funding for the below projects.

TYPE OF HAZARD	MITIGATION ACTION	LEAD DEPARTMENT OR JURISDICTION	STATUS UPDATE
Flood	Indian Canyon Bridge over UPRR – Bridge Widening over Railroad Tracks	City of Palm Springs Engineering Division	$44 Million, Under construction to be completed in 2026. Highway Bridge Program (Federal) and Measure A (Regional and Local Sales Tax)
Flood	South Palm Canyon Bridge -New Bridge at Palm Canyon Wash	City of Palm Springs Engineering Division	Bidding in FY24-25 to be completed by 2027 $8-10 Million. Highway Bridge Program (Federal) and Measure A (Regional and Local Sales Tax)
Flood / Earthquake	Ramon Road Bridge – Bridge Widening at Whitewater River	City of Palm Springs Engineering Division	Currently under design to be completed by 2027, $38 Million. Highway Bridge Program (Federal) and Measure A (Regional and Local Sales Tax)
Flood	Vista Chino Low	City of Palm Springs Engineering Division	Currently under design to be

	Water Crossing – New Bridge at Whitewater River		complete by 2028, $100 Million. Highway Bridge Program (Federal) and Measure A (Regional and Local Sales Tax)
Flood / Earthquake	South Palm Canyon Bridge - Bridge Replacement at Tahquitz Creek	City of Palm Springs Engineering Division	Bidding 2025-2026 to be completed by 2027, $12-16 Million. Highway Bridge Program (Federal) and Measure A (Regional and Local Sales Tax)
Flood	East Palm Canyon Bridge – Bridge Widening at Palm Canyon Wash	City of Palm Springs Engineering Division	Currently under design to be completed by 2028, $10-15 Million. Highway Bridge Program (Federal) and Measure A (Regional and Local Sales Tax).
Flood	New Storm Drain Line 41, Stages 3 & 4	Riverside County Flood Control District	Currently under construction, Riverside County Flood Control Zone 6 funds.
Flood	New Storm Drain Line 20 Stage 3	City of Palm Springs Engineering Division and Riverside County Flood Control District	Award project in November 2023 to be complete in 2024, $11-13 Million. Riverside County Flood Control Zone 6 funds and City funds collected from developer fees.
Flood	New Storm Drain Line 23	Riverside County Flood Control District	Currently in the planning phase to be completed by 2029. Funding is directly from the County Flood Control and is very limited, $3-6 Million, County Flood Control Zone 6 funds and City Funds collected from Developer fees
Severe Wind	Gene Autry Road Wind Wall Upgrades	City of Palm Springs Engineering Division	Currently under design to be constructed by 2024, $3.5 Million, Measure A sales taxes.

7.3 ON-GOING MITIGATION STRATEGY PROGRAMS

In the 2012 LHMP the City proposed to construct an all-weather roadway on Vista Chino between Gene Autry and Cathedral City side. The City has received the first $10.6 million of the project from the California Department of Transportation to begin the engineer design and environmental studies of the project. The total cost is of the project is $95 million. The bridge will be 2,310 feet long and 94 feet wide with two lanes in each direction and a center median. The City's Engineering Department is managing the project and is working on obtaining further State and Federal funds to bring this project to completion.

7.4 FUTURE MITIGATION STRATEGIES

The City of Palm Springs future mitigation strategies are the following:

- Continue to pursue securing funding to complete the projects identified in the Capital Improvement Plan
- Actively pursue mitigation items listed in the General Plan
- All weather road across from Indian Canyon between Tramview Road and Palm Springs Station Road
- Replace the South Palm Canyon Road Bridge over Tahquitz Creek
- Incorporate the LHMP into the General Plan during the next update
- The City will incorporate a wide range of community involvement in planning and mitigation strategies to ensure all demographics are considered including all access and functional needs communities.

SECTION 8.0 - PLAN IMPLEMENTATION AND MAINTENANCE PROCESS

The City of Palm Springs Emergency Management Coordinator and Fire Department will monitor, evaluate, and update the plan as necessary on a yearly basis. The City Emergency Management Coordinator will conduct a complete update every five years. The updated version will be submitted to the Riverside County Emergency Management Department (EMD) to be incorporated into the Multi-Jurisdictional Plan as an Annex. Riverside EMD will then submit the final updated Multi-Jurisdictional Plan to Cal-OES and FEMA.

The evaluations will be following criteria:

- Assess effectiveness of goals and objectives through implemented policies, ordinances and mitigation actions.

- After each disaster declaration the LHMP will be evaluated to identify mitigation opportunities that can be implemented during the recovery phase. Also, as part of the After Action Review determine if any of the identifiable strategies affect the LHMP and if the plan needs to be updated.
- After an incident that occurred in an area not previously identified for that type of hazard.
- The completion of a hazard mitigation project.
- If reduction in resources previously allocated to a mitigation project occurs.

SECTION 9.0 - INCORPORATION INTO EXISTING PLANNING MECHANISMS

The City of Palm Springs has several planning mechanisms which incorporate the Local Hazard Mitigation Plan. The City's Emergency Management Coordinator will work in coordination with other City departments, Riverside County agencies, and other stakeholder groups to ensure mitigation strategies are planned, developed, and incorporated.

- The City's General Plan Section 6: Safety Element.
- The Fire Department-Office of Emergency Management's Mission Statement
- Land Zoning and Use Planning
- City of Palm Springs Municipal Code: Chapter 8.68 - Flood Damage Prevention Ordinance
- City of Palm Springs Municipal Code Chapter 8.70 - Stormwater Management and Discharge Controls
- Adopted 2019 California Building Code on January 9, 2020 and effective February 1, 2020 - Building Code
- Adopted Ordinance 1739 on March 12, 2008 - Flood Plain ordinance
- Emergency Operations Plan (EOP), 2012
- Comprehensive General Plan for the Palm Springs completed in 2007
- NFIP/CRS Community No. 060257
- FEMA Flood Insurance Study, 2018

The City of Palm Springs has a Safety Element in its General Plan that includes a discussion of fire, earthquake, flooding, and landslide hazards. During the next General Plan update, care will be taken to incorporate mitigation planning and actions from the HMP. The City also participates in the National Flood Insurance Program which aims to reduce losses through flood plain management.

There was minimal integration of the 2018 plan due to a gap in emergency management personnel. The City did not have emergency management staff from 2018 through August 2019. New emergency management staff have slowly made progress, but this progress was hindered by the COVID-19 pandemic.

Emergency management staff are working with all City departments on planning and integration of emergency preparedness into all City operations.

SECTION 10.0 - CONTINUED PUBLIC INVOLVEMENT

After the City goes through the Scheduled Plan Maintenance Process, we will notify the public of any changes in the Local Hazard Mitigation Plan by posting a notice on the City webpage.

The City will also maintain a flyer on its website explaining what LHMP is and whom to contact if the public has questions.

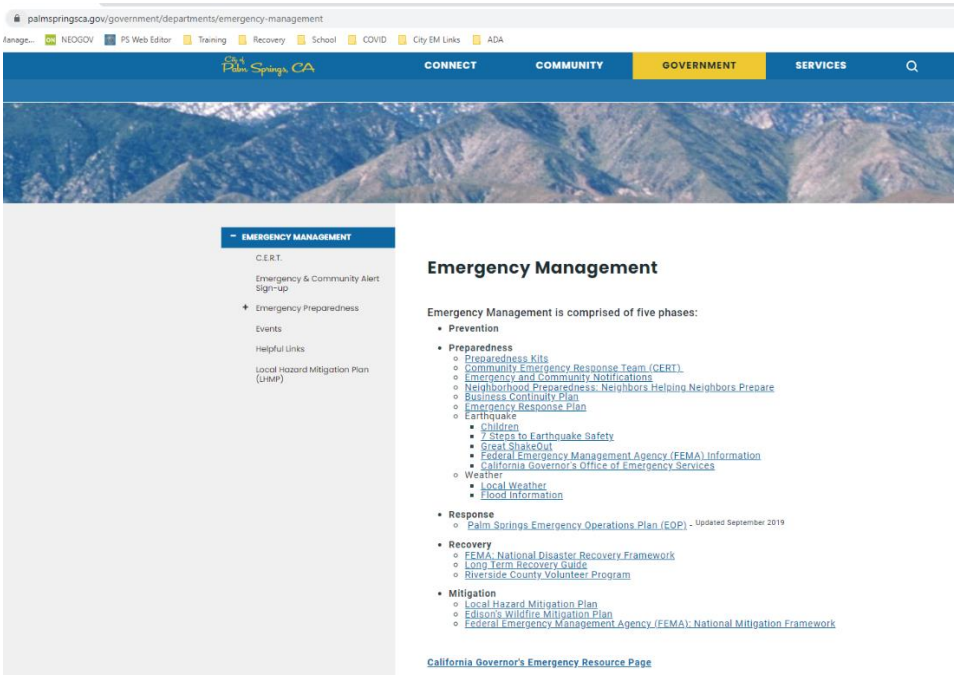
The City will maintain ongoing communication with the community through the Organized Neighborhoods of Palm Springs (ONE-PS) at monthly meetings and annual emergency preparedness meetings.

The City will also discuss the plan during all Community Emergency Response Team (CERT) courses.

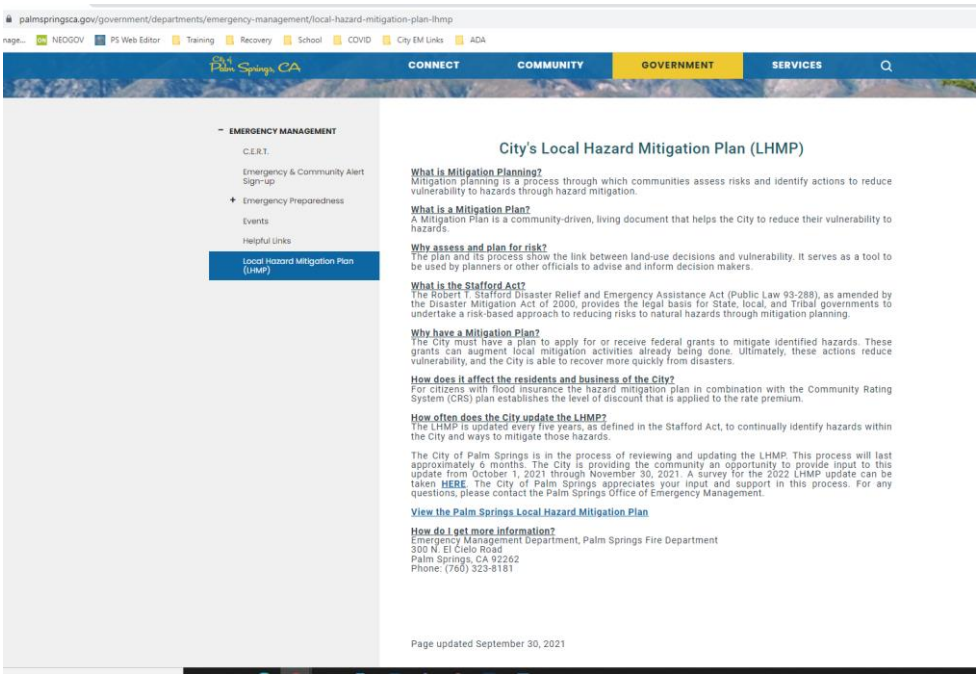
APPENDIX A – PUBLIC PARTICIPATION

City Webpage

Emergency Management Section of the Fire Department Webpage



Local Hazard Mitigation Plan page of Emergency Management section of the webpage-continuous



Survey Posted for Community Input on Hazards

The survey was posted from August 1, 2021 to November 30, 2021.

Palm Springs Local Hazard Mitigation Public Survey 2022 Update

The City of Palm Springs Fire Department - Office of Emergency Management is in the process of updating the City's Local Hazard Mitigation Plan (LHMP). The purpose of an LHMP is to identify hazards within the City and ways to mitigate those hazards.

Based on the 10 NATURAL hazards listed below please rank from most likely to occur (1) to the least likely to occur (10) in Palm Springs.

Please see all the rankings and only use each ranking once

Earthquake

1 2 3 4 5 6 7 8 9 10

Wildland Fire

1 2 3 4 5 6 7 8 9 10

Flood

1 2 3 4 5 6 7 8 9 10

Drought

1 2 3 4 5 6 7 8 9 10

Landslides

1 2 3 4 5 6 7 8 9 10

Insect Infestation

1 2 3 4 5 6 7 8 9 10

Extreme Summer/Winter Weather

1 2 3 4 5 6 7 8 9 10

Severe Wind Event

1 2 3 4 5 6 7 8 9 10

Based on the 10 TECHNOLOGICAL hazards listed below please rank from most likely to occur (1) to the least likely to occur (10) in Palm Springs.

Please see all the rankings and only use each ranking once

Pipeline Break

1 2 3 4 5 6 7 8 9 10

Aqueduct

1 2 3 4 5 6 7 8 9 10

Transportation Disruption

(Highway, Railroad, Aviation)

1 2 3 4 5 6 7 8 9 10

Power Outage

1 2 3 4 5 6 7 8 9 10

Hazmat Accidents

1 2 3 4 5 6 7 8 9 10

Nuclear Accidents

1 2 3 4 5 6 7 8 9 10

Civil Unrest

1 2 3 4 5 6 7 8 9 10

Jail/Prison Event

1 2 3 4 5 6 7 8 9 10

Terrorism

1 2 3 4 5 6 7 8 9 10

Is your home/business located in a floodplain?

- ○ Yes
- ○ No
- ○ Not Sure

If you do not have flood insurance, why not?

To find out your risk: https://www.floodsmart.gov/floodsmart/pages/about/nfip_overview.jsp

- ☐ Too expensive
- ☐ Never really considered it
- ☐ Not necessary because it never floods
- ☐ Not necessary because I'm elevated or otherwise protected
- ☐ Not located in a floodplain

Do you have earthquake insurance?

- ○ Yes
- ○ No

If you do not have earthquake insurance why not?

For more information on earthquake insurance: http://www.insurance.ca.gov/01-consumers/105-type/95-guides/03-res/eq-ins.cfm

- ☐ Too expensive
- ☐ Not Necessary
- ☐ Never really considered it

A number of community-wide activities can reduce our risk from hazards. In general, these activities fall into one of the following six broad categories. Please tell us how important you think each one is for the City to consider pursuing.

Prevention

Administrative or regulatory actions that influence the way land is developed and buildings are built. Examples include planning and zoning, building codes, open space preservation, and floodplain regulations.

Very Important | Somewhat Important | Not Important

Property Protection

Actions that involve the modification of existing buildings to protect them from a hazard or removal from the hazard area. Examples include acquisition, relocation, elevation, or structural retrofits.

Very Important | Somewhat Important | Not Important

Natural Resource Protection

Actions that in addition to minimizing hazard losses, also preserve or restore the functions of natural systems. Examples include: floodplain protection, habitat preservation, and slope stabilization.

Very Important | Somewhat Important | Not Important

Structural Projects

Actions intended to lessen the impact of a hazard by modifying the natural progression of the hazard. Examples include dams, levees, retention basins, channel modification, retaining walls and storm sewers.

Very Important | Somewhat Important | Not Important

Emergency Services

Actions that protect people and property during and immediately after a hazard event. Examples include warning systems, evacuation planning, emergency response training, and protection of critical facilities or systems.

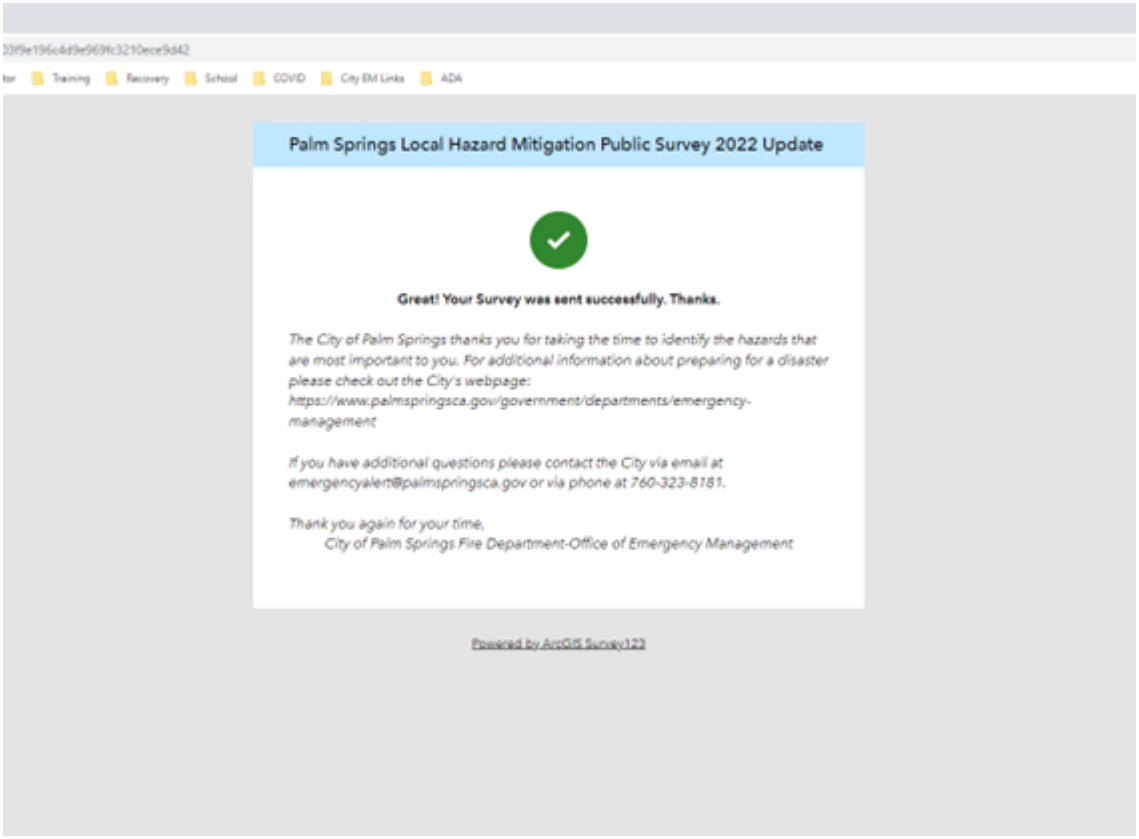
Very Important | Somewhat Important | Not Important

Public Education and Awareness

Actions to inform community members about hazards and techniques they can use to protect themselves and their property. Examples include outreach projects, Community Emergency Response Team (CERT), and Neighbors Helping Neighbors Prepare.

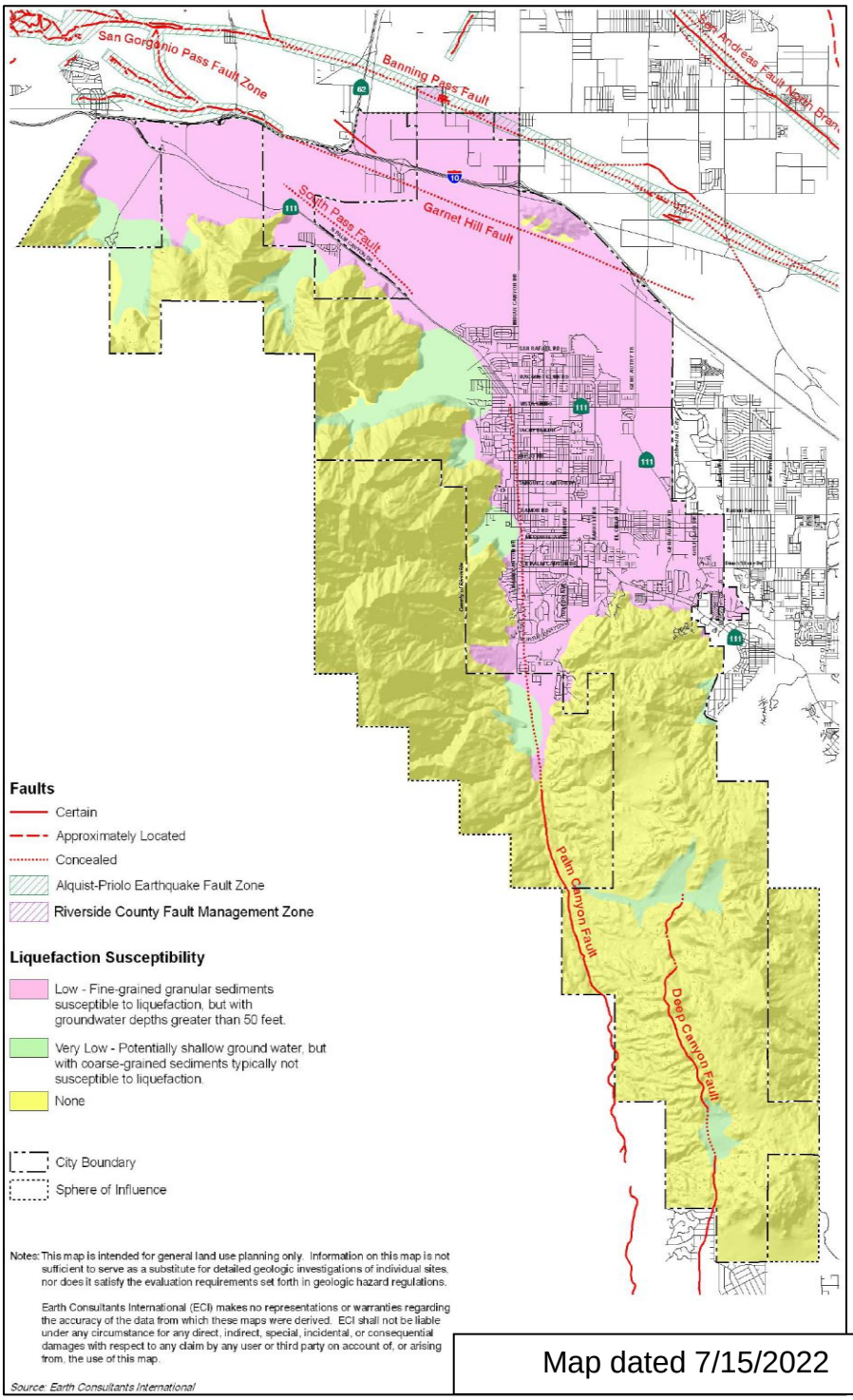
Very Important | Somewhat Important | Not Important

Response Received after completing the survey

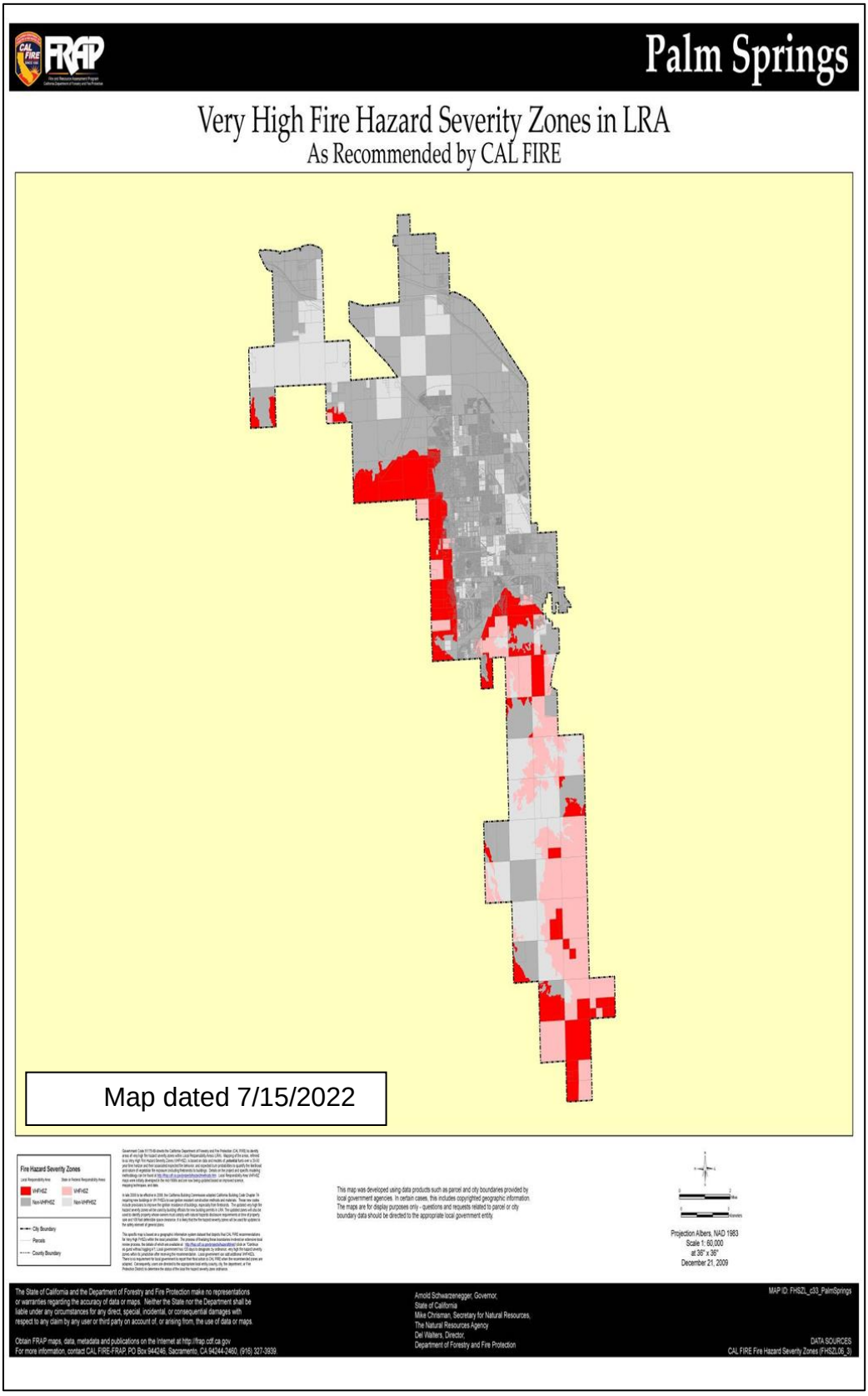


APPENDIX B – Maps

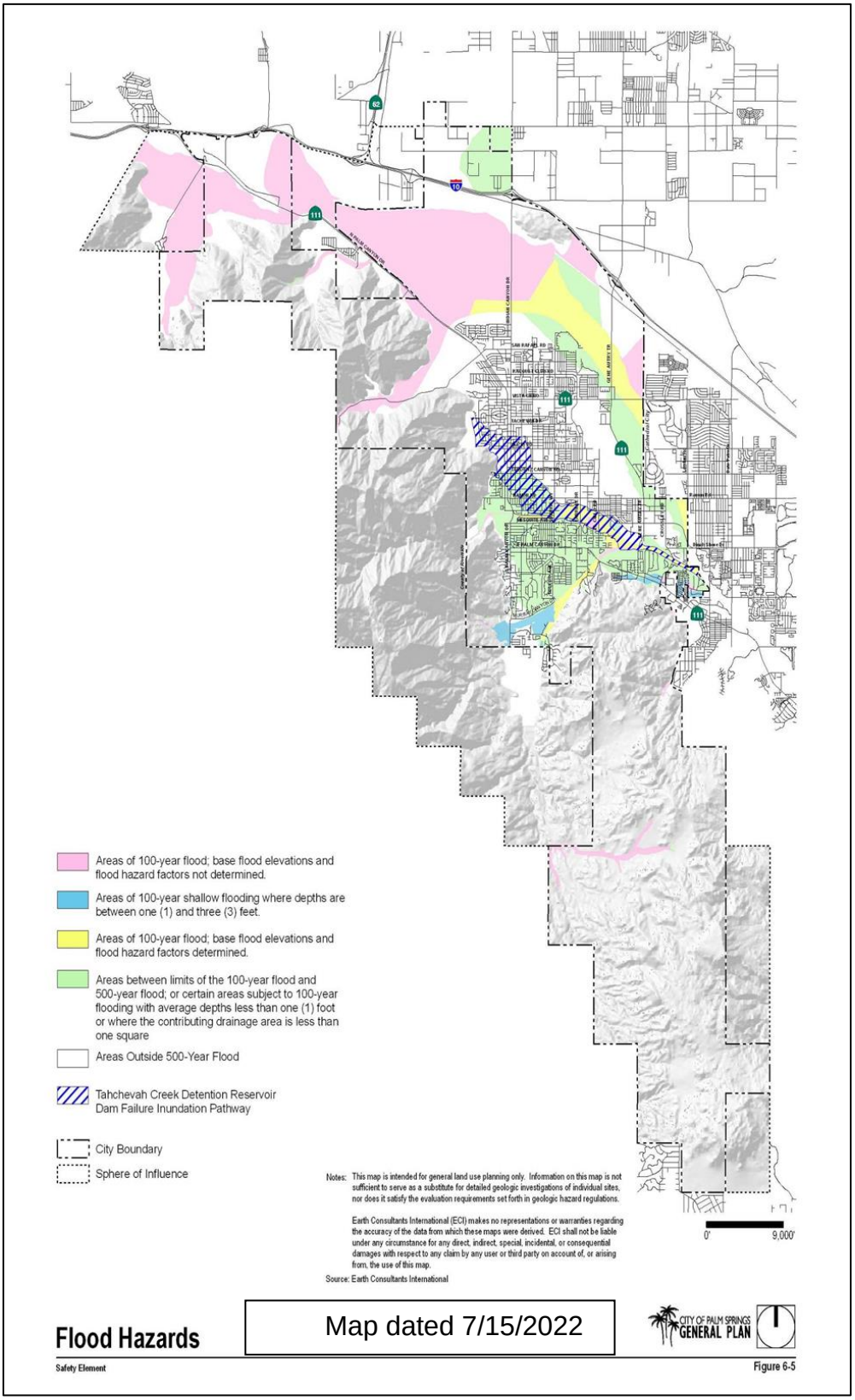
Maps of Faults



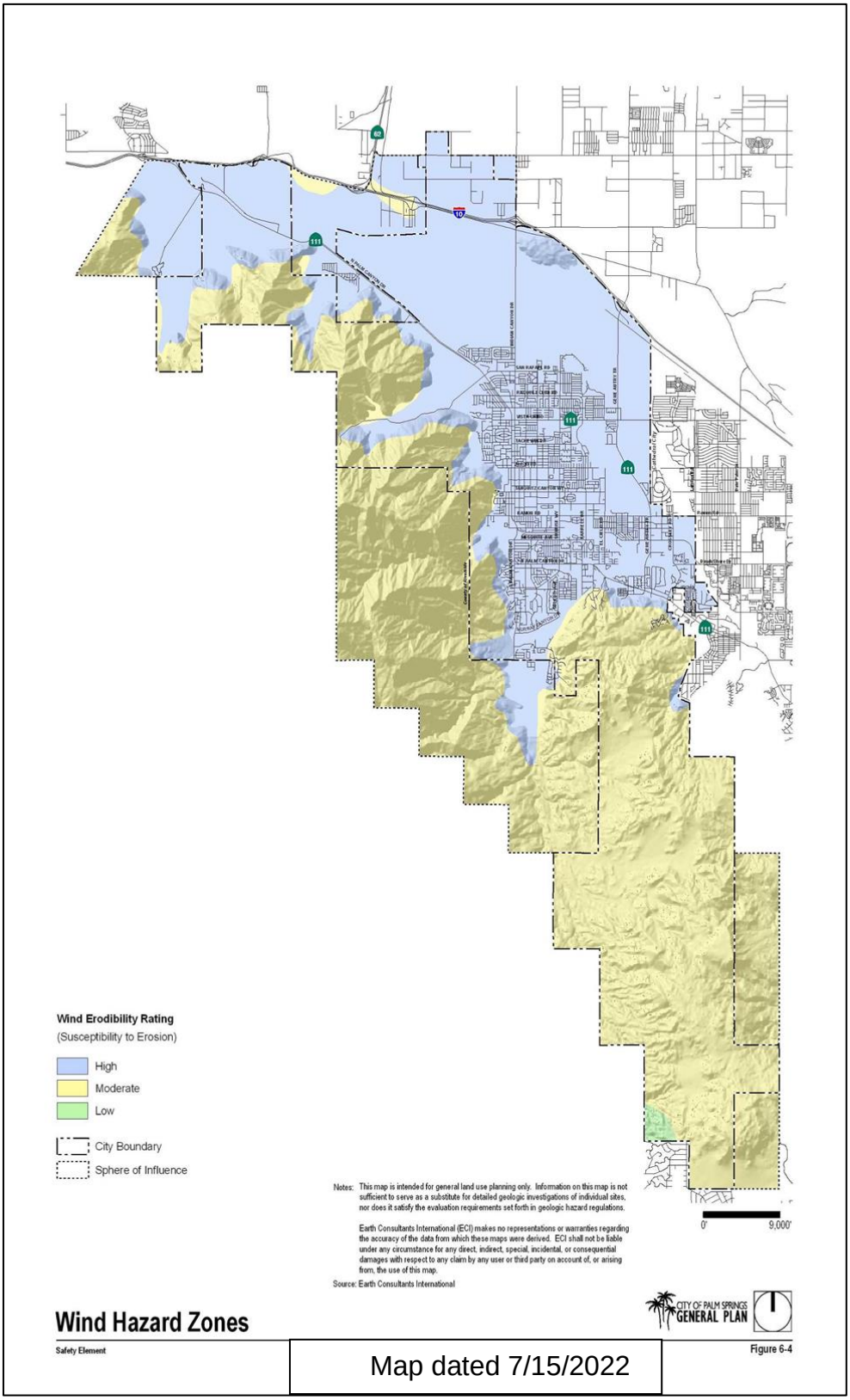
Map of Fire Severity Zones



Map of Flood Hazards



Map of Extreme Wind Affects



Map dated 7/15/2022