

CITY OF BEAUMONT

2023

LOCAL HAZARD MITIGATION PLAN



Prepared by:
The City of Beaumont
9/28/2023

CONTACT INFORMATION

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PLAN ADOPTION/RESOLUTION

The City of Beaumont will submit plans to the Riverside County Emergency Management Department who will forward 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, we will wait to receive an "Approval Pending Adoption" letter from FEMA before taking the plan to our local governing bodies for adoption. Upon approval, the City of Beaumont will insert the signed resolution.

EXECUTIVE SUMMARY

The purpose of this local hazard mitigation plan 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 risks to people and property from natural and man-made hazards.

The plan was prepared under 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's continual efforts to maintain a disaster-mitigation strategy are ongoing. Our goal is to develop and maintain an all-inclusive plan to include all jurisdictions, special City's, businesses, and community organizations to promote consistency, continuity, and unification.

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 City's, 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, and provides future mitigation planning and maintenance of existing plans.

The plan will be implemented upon FEMA approval.

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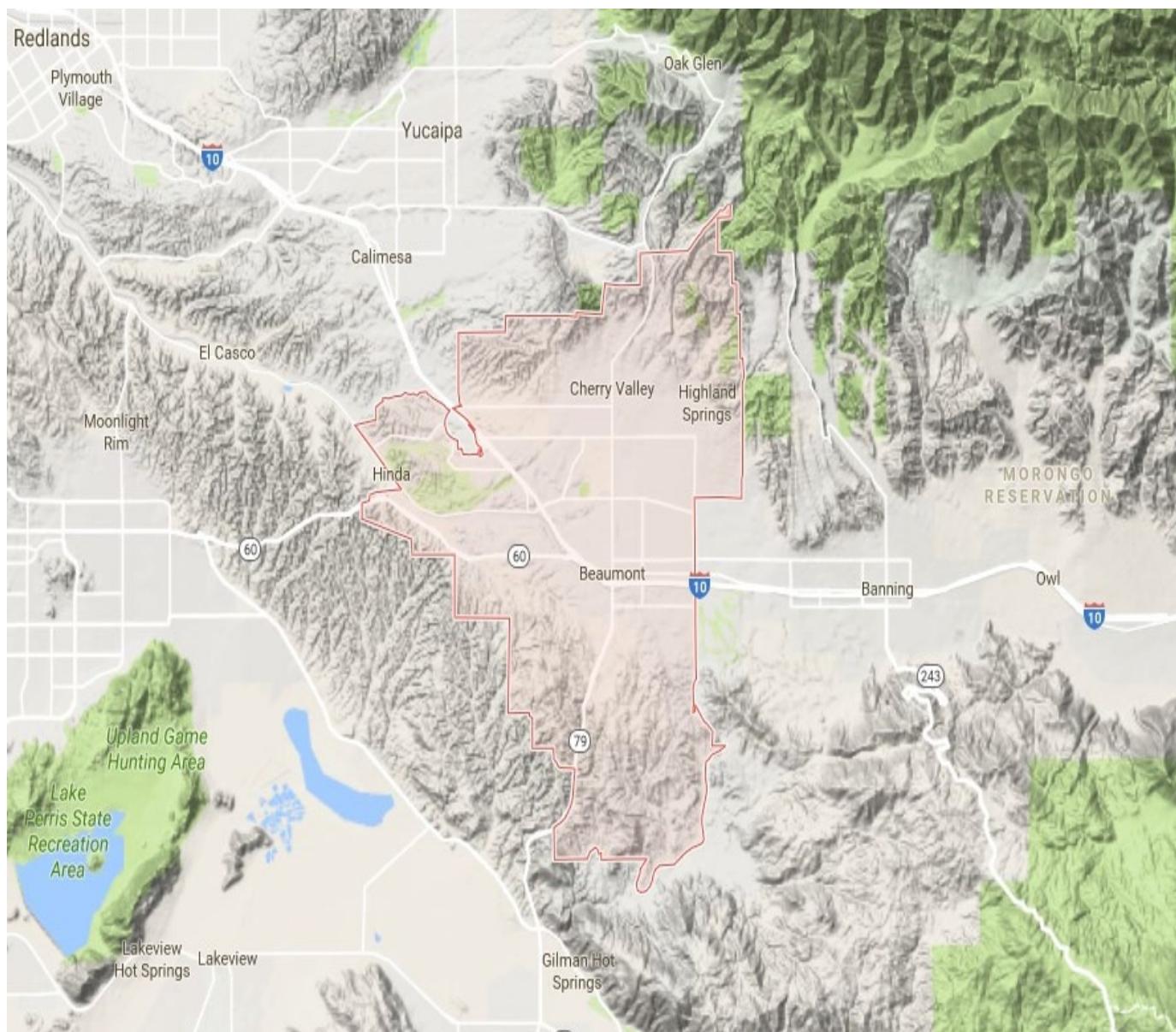
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SECTION 1.0 – CITY OF BEAUMONT PROFILE

1.1 Brief History

The City of Beaumont was incorporated in November 1912. Founded at the turn of the twentieth century, Beaumont is proud of its rich history and rural charm. The town served as a welcome “stopping-off point” for early travelers from the Mohave desert to Los Angeles, and later for Los Angeles residents eager to vacation in Palm Springs. Some, however, set down roots, drawn by the beautiful mountain vistas, clean, crisp air, and the abundance of cherry and apple orchards. Beaumont is proud of these early settlers and their families, many of whom continue to live and thrive in Beaumont.

Figure 1.1.1. Map of the City of Beaumont



1.2 Geography and Climate Description

The City of Beaumont is in the westernmost portion of Riverside County and is bounded by Calimesa and unincorporated areas on the east, on the north by the unincorporated County areas (Cherry Valley), on the south by unincorporated County areas and the City of San Jacinto, and the east by the City of Banning. The city is in the San Gorgonio Pass, the only easterly link with the greater Los Angeles Metropolitan area. Beaumont is located approximately 70 miles northeast of Los Angeles, 21 miles northeast of Riverside, and 21 miles southeast of San Bernardino. The geographic area governed by the Beaumont General Plan includes the City's corporate boundaries as existed in 2012 and the City's established Sphere of Influence. Because there is considerable variation within the area governed by the General Plan, the larger Beaumont Planning Area has been subdivided into eight smaller planning areas: 1) Town Center Planning Area, 2) Oak Valley Planning Area, 3) North Beaumont Planning Area, 4) East Beaumont Planning Area, 5) 6th Street Corridor Planning Area, 6) Southeast Beaumont Planning Area, 7) Southwest Planning Area, 8) West Beaumont Planning Areas.

1.3 Economy Description

The City of Beaumont is primarily a bedroom community of 55,280 residents based on July 1st, 2021, Census information. Current development is approximately 70 percent residential, 22 percent commercial, and 8 percent industrial, limiting the sales and property tax base. The largest employer is Wal-Mart. The city contains 16 City Parks, including a 20 acres sports park, a municipal pool, and an extensive trails system. The Beaumont School City has ten schools within the jurisdiction. Strategically located at the intersection of Interstate 10, Highway 60, and Highway 79, Beaumont offers exceptional development opportunities to new businesses. The City's immediate market area population currently exceeds 120,000 (15-mile radius), with strong growth projected to occur for several more decades. Beaumont will remain a highly desirable location for new investments.

Table 1.3.1. Employment/Jobs Sector

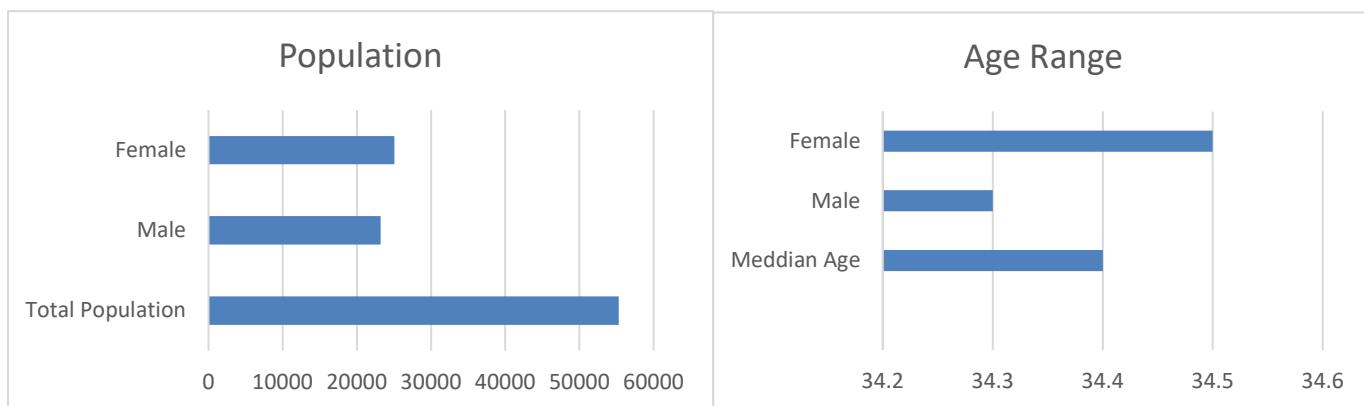
Economy	Beaumont, California	United States
Unemployment Rate	6.5%	6.0%
Recent Job Growth	-5.8%	-6.2%
Future Job Growth	45.4%	33.5%
Sales Taxes	7.8%	6.2%
Income Taxes	8.0%	4.6%
Income per Cap.	\$26,817	\$31,177
Household Income	\$71,664	\$57,652

Family Median Income	\$76,974	\$70,850
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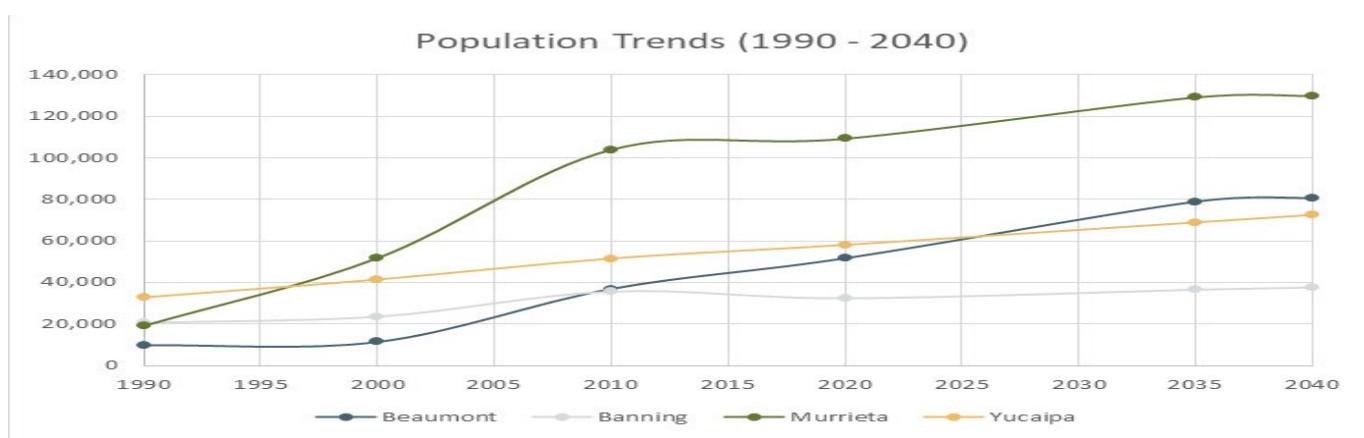
1.4 Population and Housing

The city and its designated sphere of influence, encompass approximately 48 square miles. The land area with the City's corporate boundaries is about 31 square miles. In the coming years, the city will likely be among the fastest-growing areas of Southern California due to the availability of developable land, relatively low housing cost, and desirability as a retirement community. The City's location in relation to the significant regional transportation facilities which including I-10 freeway, SR-60 freeway, and the railroad. Beaumont also has also enhanced its desirability as an industrial location. The city has developed a commercial/business park on the west side of Highland Springs Avenue in the southeast area of town. The City of Beaumont is estimated to have 55,280 residents. This was an increase in the population of 10,280 from 2017.

Table 1.4.1. Population Statistics

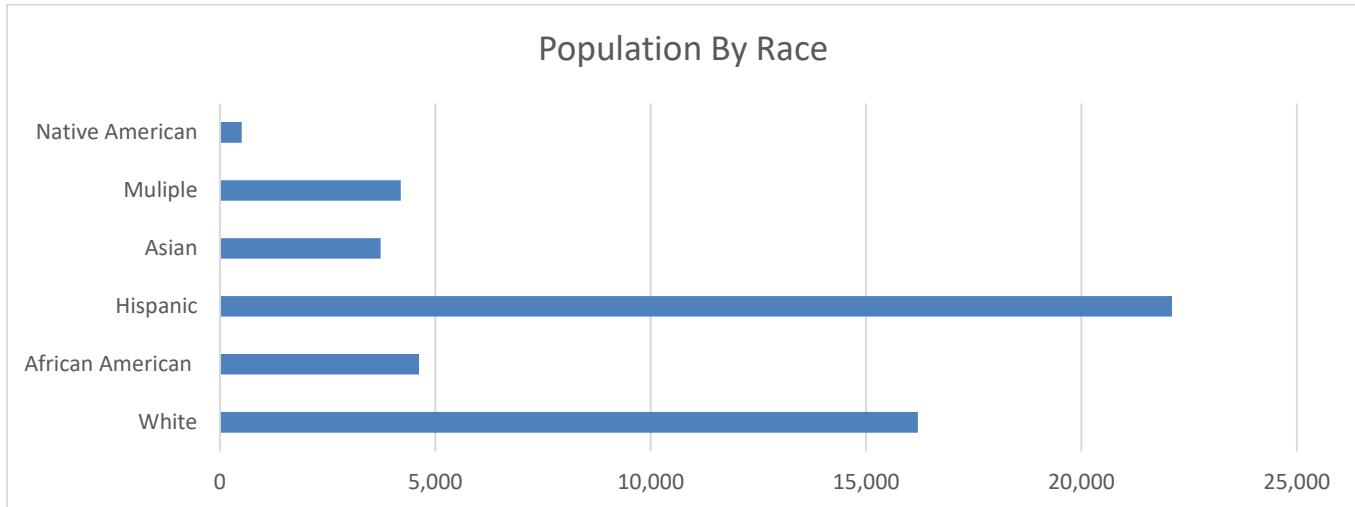


Source: US Census Bureau.



Source: City of Beaumont 2020 General Plan.

Figure 1.4.2 Population Demographics



Source: U.S. Census Bureau.

Table 1.4.3. Population Demographics Statistics

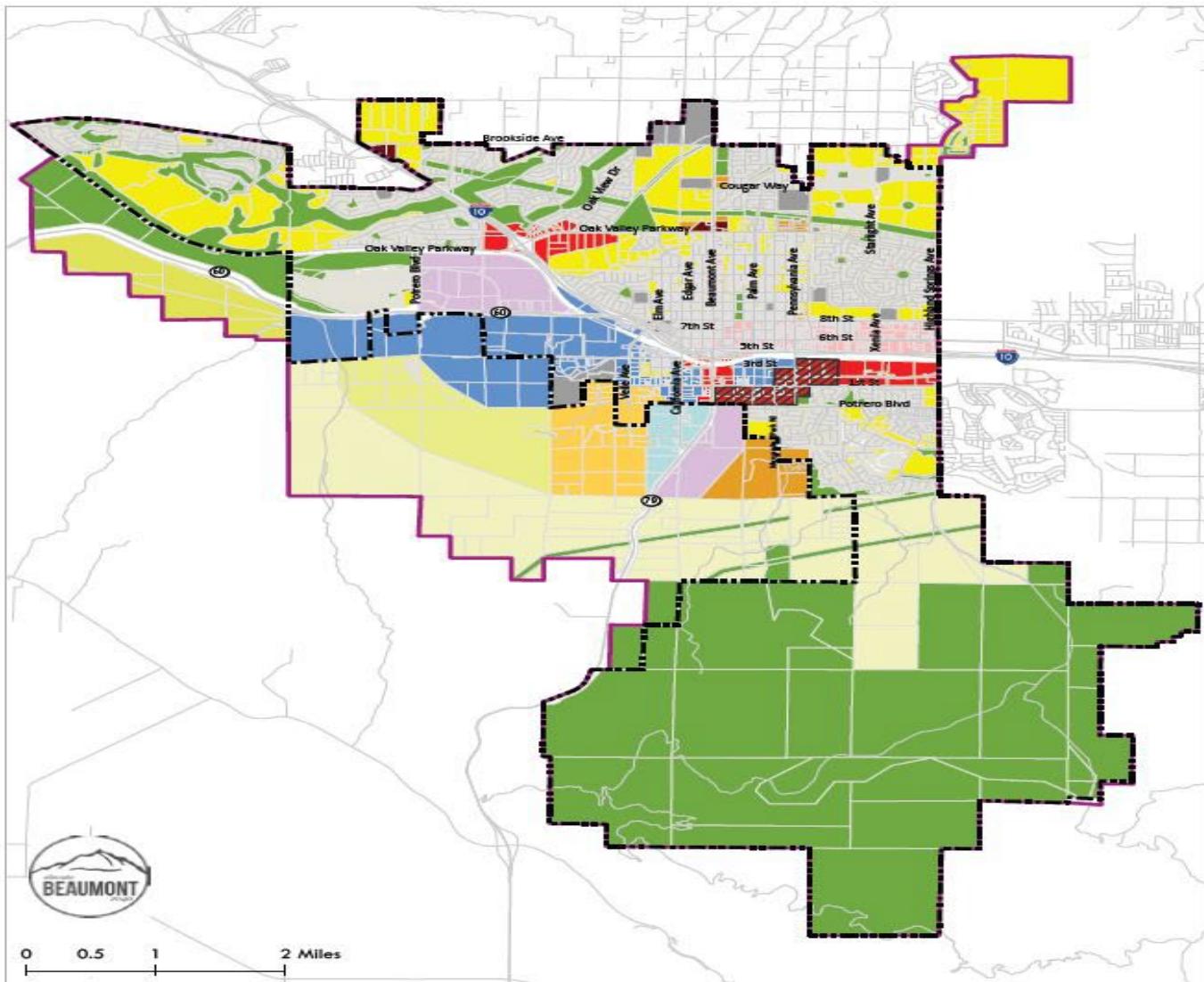
Total number of occupied homes:	14,299
Average People Per Household:	3
Family Households:	11,422
Non-Family Household:	2,877
Household with Children:	6,819
Household without Children:	7,480
Average Household Income:	\$98,899
Median Household Income:	\$88,932
People below Poverty Level:	4,441
People above Poverty Level:	42,746

Source: U.S. Census Bureau.

1.5 Development Trends and Land Use

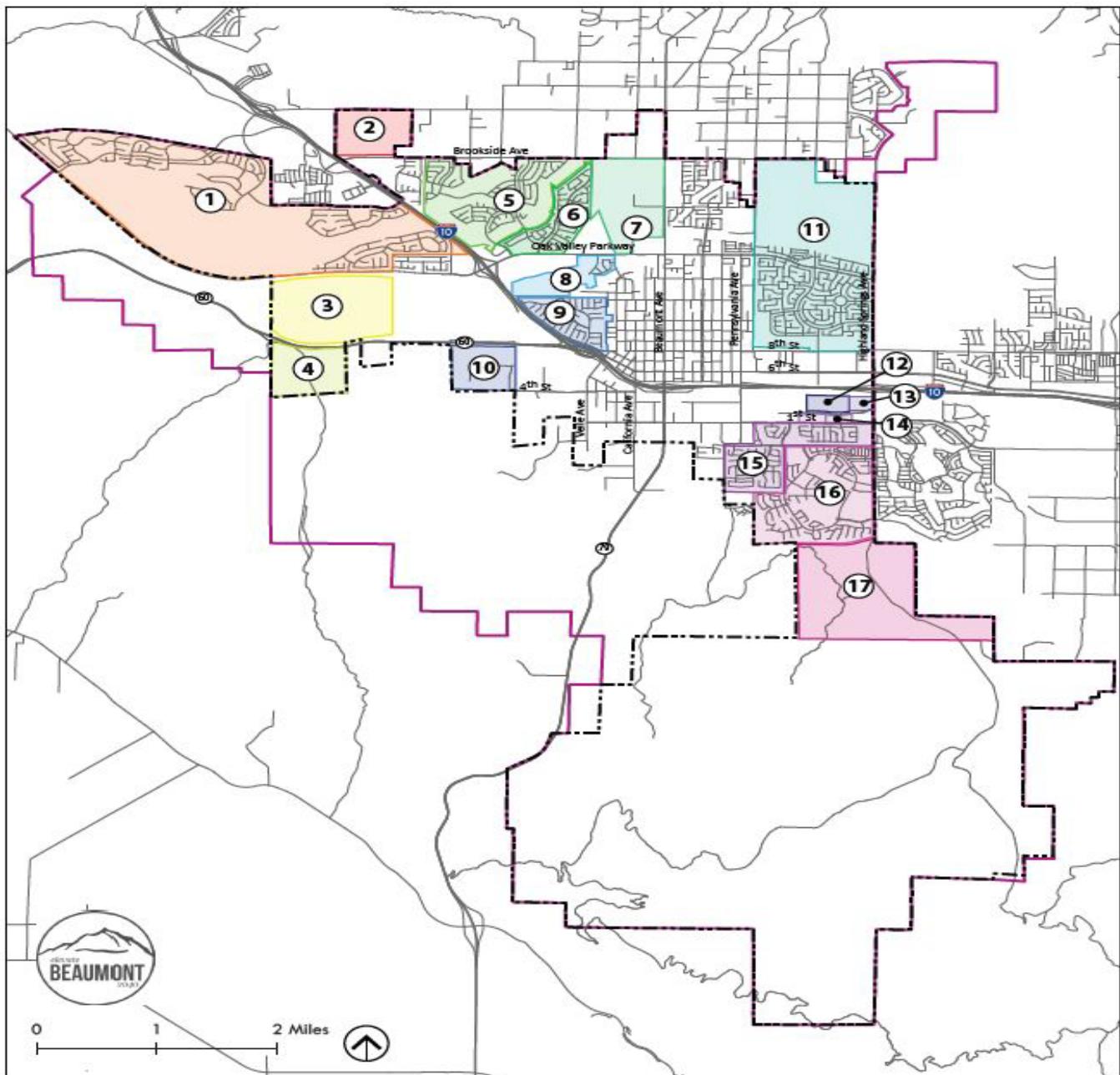
As part of the City's General Plan update, it is appropriate to take an inventory of both "unfinished business" as well as those challenges that face the community in the opening decades of the 21st Century. Some of the issues and challenges the City will face in coming years are shared with the neighboring communities, while others are unique to Beaumont. The General Plan represents the cornerstone in the long-range planning for land use and development in the city. The importance of the General Plan is clearly stated in the government code that indicates the General Plan "serves as the constitution of the local government for which it is prepared."

Figure 1.5.1. City of Beaumont Land Use and Designations



Source: City of Beaumont 2040 General Plan

Figure 1.5.2. City of Beaumont Specific Plan



SPECIFIC PLANS

City Boundary	Sphere of Influence	1 Fairway Canyon/Tournament Hills	2 Sunny Cal	3 Heartland	4 Hidden Canyon	5 Solera	6 Estates at Oak Valley	7 Noble Creek Vistas	8 Kirkwood Ranch	9 Three Rings Ranch	10 Rolling Hills Ranch Industrial	11 Sundance	12 Walmart/Home Depot Commercial	13 Marketplace at Beaumont	14 San Gorgonio Village	15 Seneca Springs/Empire Homes	16 Four Seasons	17 Potrero Creek Estates
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Source: City of Beaumont 2040 General Plan

Figure 1.5.3. City of Beaumont Specific Housing/Business Tracts

SPECIFIC PLAN NAME	DESCRIPTION
1. Fairway Canyon/ Tournament Hills	Single family residential community with a total buildout of 4,660 homes
2. Sunny Cal	Single family residential community with a total buildout of 560 homes
3. Heartland	Single family residential community with a total buildout of 1,224 homes
4. Hidden Canyon	Industrial park with a total buildout of 2.89 million square feet
5. Solera	Single family residential community with a total buildout of 1,600 homes
6. Estates at Oak Valley	Residential community with a mixture of single family and active adult with a total buildout of 2,800 homes and 151,000 square feet of commercial.
7. Noble Creek Vistas	Single family residential community with a total buildout of 648 homes
8. Kirkwood Ranch	Residential development including 470 single family homes and 60 multi-family units
9. Three Rings Ranch	Single family residential community with a total buildout of 602 homes
10. Rolling Hills Ranch Industrial	Industrial development with a total buildout of 3,000,000 square feet
11. Sundance	Residential community with a mix of very low density to high density and a total buildout of 4,450 units
12. Walmart/Home Depot Commercial	Commercial uses with a total square footage of 224,214 square feet
13. Marketplace at Beaumont	Commercial uses with a total buildout of 194,569 square feet
14. San Gorgonio Village	Commercial uses with a total buildout of 225,139 square feet
15. Seneca Springs/ Empire Homes	Residential community with a total buildout of 1,150 homes
16. Four Seasons	Active adult residential community with a total buildout of 2,400 homes
17. Potrero Creek Estates	Single family residential community with a total buildout of 1,028 homes

Source: City of Beaumont 2040 General Plan.

SECTION 2.0 - PLANNING PROCESS

2.1 Background and Scope

Hazard mitigation is defined by FEMA as “any sustained action taken to reduce or eliminate long-term risk to human life and property from a hazard event.” The results of a three-year, congressionally mandated independent study to assess future savings from mitigation activities provides evidence that mitigation activities are highly cost-effective. On average, each dollar spent on mitigation saves society an average of \$6 in avoided future losses in addition to saving lives and preventing injuries (National Institute of Building Science Natural Hazard Mitigation Saves 2017 Interim Report).

Hazard mitigation planning is the process through which hazards are identified, likely impacts determined, mitigation goals set, and appropriate mitigation strategies determined, prioritized, and implemented. This LHMP Update documents the City of Beaumont Valley’s hazard mitigation planning process and identifies relevant hazards and vulnerabilities and various strategies the city will use to decrease vulnerability and increase resiliency and sustainability in the City of Beaumont.

This 2022 LHMP Update is part of the Riverside County multi-jurisdictional plan that geographically covers the unincorporated areas of the county and the geographical area of those jurisdictions that are part of the plan.

This LHMP Update was prepared pursuant to the requirements of the Disaster Mitigation Act of 2000 (Public Law 106-390) and the implementing regulations set forth by the Interim Final Rule published in the Federal Register on February 26, 2002, (44 CFR §201.6) and finalized on October 31, 2007. these requirements and regulations will be referred to collectively as the Disaster Mitigation Act (DMA) or DMA 2000.) While the act emphasized the need for mitigation plans and more coordinated mitigation planning and implementation efforts, the regulations established the requirements that local hazard mitigation plans must meet for a local jurisdiction to be eligible for certain federal disaster assistance and hazard mitigation funding under the Robert T. Stafford Disaster Relief and Emergency Act (Public Law 93-288). This planning effort also follows FEMA’s 2013 Plan Preparation Guidance.

Information in this LHMP Update will be used to help guide and coordinate mitigation activities and decisions for the City of Beaumont in the future. Proactive mitigation planning will help reduce the cost of disaster response and recovery to the city and its business and residents, by protecting critical facilities, reducing liability exposure, and minimizing overall impacts and disruptions. The Planning Area has been affected by hazards in the past and is thus committed to reducing future impacts from hazard events and maintaining eligibility for mitigation-related federal funding.

2.2 Planning Area

This 2022 LHMP Update geographically covers the approximately 31 square mile boundary of the City of Beaumont. Hence forth this area will be referred to as the *Planning Area*.

2.3 Local Planning Process

Element A - Planning Process
<p>Requirements §201.6(b) and §201.6(c)(1): An open public involvement process is essential to the development of an effective plan. In order to develop a more comprehensive approach to reducing the effects of natural disasters, the planning process shall include:</p> <ol style="list-style-type: none">1) An opportunity for the public to comment on the plan during the drafting stage and prior to plan approval;2) An opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development, as well as businesses, academia, and other private and nonprofit interests to be involved in the planning process; and3) Review and incorporation, if appropriate, of existing plans, studies, reports, and technical information. [The plan shall document] the planning process used to develop the plan, including how it was prepared, who was involved in the process, and how the public was involved.

The City's planning process followed the four-step DMA planning process recommended by FEMA and California Offices of Emergency Services (CalOES) which included: (1) Organize Resources, (2) Assess Risk, (3) Develop a Mitigation Plan, and (4) Adopt and implement the plan. Throughout this process, City of Beaumont participated in meetings coordinated by the Riverside County Emergency Management Department (EMD), and Pass Area Communication Group (PASSCOM) meetings.

The overall approach to the City of Beaumont Local Hazard Mitigation Plan was to develop an understanding of the natural hazards to the city and to determine ways to reduce those risks, and to prioritize and outline potential mitigation strategies.

To complete these objectives, Riverside County Emergency Management coordinated and collaborated with the City of Beaumont City Manager and Administrative Staff, CalFire, Beaumont Police Department, Beaumont Police Public Information Officer (PIO), Community Development, Public Works Information Technology, and Finance Department. The list in Table 2.3.1 includes all HMPC members that attended one or more HMPC meetings.

Table 2.3.1. City of Beaumont Hazard Mitigation Planning Committee

Agency	Department	Name & Title
City of Beaumont	City Manager	Elizabeth Gibbs
City of Beaumont	Executive Assistant	Siomara Giroux
City of Beaumont	Police Department	Lieutenant Robert Galletta
City of Beaumont	Police Department	Sergeant Christopher Ramos
City of Beaumont	Police Department PIO	Mercedes Cashmer
CAL Fire	Fire Department	Todd Hopkins
City of Beaumont	Community Development	Doug Story
City of Beaumont	Public Works	Jeff Hart
City of Beaumont	IT Department	Jamie Salas
City of Beaumont	Finance	Jennifer Ustation
City of Beaumont	Planning	Sara Retmier
Riverside County	EMD	Erik Ramirez, Emergency Services Coordinator

At the first meeting, general priorities and appropriate departments were identified. The need for community involvement was expressed. Subsequent meetings identified various mitigation strategies and established a priority system for these strategies. Also, a review of the finance and budgets to achieve set goals was completed with the Finance Director.

Table 2.3.2. Hazard Mitigation Meeting Dates

Meeting Type	Meeting Topic	Meeting Date	Meeting Location
LHMP #1 Kickoff Meeting	1) Introduction to DMA and the planning process. 2) Overview of current LHMP 3) Organize Resources	06/15/22	Microsoft TEAMS meeting
LHMP #2	Hazard Identification & Profiling	08/08/22	Microsoft TEAMS meeting
LHMP #3	Risk Identification and Rankings	09/26/22	Microsoft TEAMS meeting
LHMP #4	Hazard Profile and Risk Matrix	10/24/23	Beaumont USD

2.4 Participation in Regional (OA) Planning Process

The City of Beaumont participated in the Regional MJLHMP planning process with the Riverside County Operational Area by attending MJLHMP meetings and public hearings. At these meetings, common hazards, ranking, and potential mitigation ideas were discussed for all jurisdictions participating in the MJLHMP.

The city participated in Riverside County workshops, conferences, and meetings, including:

- On January 13, 2022, attended the introduction and overview of the LHMP.
- On June 14th, 2022: attended Multi-Jurisdictional Local Hazard Mitigation Plan / Local Hazard Mitigation Plan Kick-Off Meeting.
- On August 5th, 2022: attended Multi-Jurisdictional Local Hazard Mitigation Plan / Local Hazard Mitigation Plan Jurisdiction Workshop
- On October 5th, 2022, attended the OA Steering Committee Meeting.
- On October 17th, 2022, attended participated in a conference call with the Riverside County Emergency Management Department and CalOES State LHMP Coordinator.
- On November 8th, 2022, attended participated in the PASSCOMM meeting where the LHMP update was discussed, and input was requested.
- On January 4th, 2023, participated in the OA Steering Committee Meeting.

2.3 Public Involvement and Comment

The City of Beaumont informed the public that the Local Hazard Mitigation Plan was in the process of being updated and solicited public comments and questions in the following manner:

- On October 11th, 2022. An announcement was made during the PASSCOM meeting, which included a request for comments or questions to be made on the City's website.
- On October 19, 2022. until December 31, 2022. A public survey was made available on the City of Beaumont website beaumontca.gov/lhmp to receive feedback from the public.
- On November 13th, 2022. An announcement was made during the PASSCOM meeting, which included a request for comments or questions to be made on the City's website.
(Refer to Appendix A for supporting documentation)

2.4 Plans Adopted by Resolution

Plan Adoption

Requirement §201.6(c)(5): [The local hazard mitigation plan shall include] documentation that the plan has been formally approved by the governing body of the jurisdiction requesting approval of the plan (e.g., City Council, county commissioner, Tribal Council).

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

SECTION 3.0 – MITIGATION ACTIONS/UPDATES

Element D - Plan Review, Evaluation, and Implementation

Requirement §201.6(d)(3) A local jurisdiction must review and revise its plan to reflect changes in development, progress in local mitigation efforts, and changes in priorities, and resubmit if for approval within 5 years in order to continue to be eligible for mitigation project grant funding.

The updated LHMP complies with FEMA guidance and California OES guidelines for LHMPs. The update followed the requirements noted in the DMA of 2000 and FEMA's 2013 Local Hazard Mitigation Planning Handbook. This LHMP update involved a comprehensive review and update of each section of the 2018 LHMP and has attempted to align with the elements of the DMA and FEMA review guide and therefore has multiple changes in section title and content.

3.1 Updates from 2018 Plan

The 2023 update was a complete review and rewrite of many of the sections to align with the four-step planning process and incorporate update information. Many of the 2018 LHMP sections were renamed or adjusted in their order within the 2023 update.

- No new natural hazards were identified during this update.

3.2 Hazard Identification Updates from 2018 Plan

The FEMA National Risk Index (NRI) evaluates 18 different natural hazards that could affect communities throughout the United States. In the initial stages of the hazard identification process the HMP conducted a comparison report of those census tracts located within the Planning Area to identify potential hazards. Based upon the reference documents and after discussion it was decided that many of the hazards addressed in the 2018 LHMP, are not natural hazards and would be better addressed in a comprehensive Threat Hazards Identification Risk Analysis (THIRA) in conjunction with an update to the Emergency Operations Plan.

Table 3.2.1 identifies those changes in the hazard identification between the 2018 and 2023 plan update and identifies the significance of that hazard to the Planning Area.

Table 3.2.1. Hazard Identification Changes from the 2018 LHMP

2023 Hazards	2018 Hazards	Comments	Significance
Earthquake	Earthquake	No change	High
Wildfire	Wildfire	No change	High
Flood	Flood	No change	Medium
Drought	Drought	No change	Medium
Heat Wave	Extreme Summer/Winter Weather	No change	Medium
Cold Wave	-	This was excluded, see table 4.1.1	Low
Strong Winds	Severe Wind Events	This was excluded, see table 4.1.1	Low
Hail	-	This was excluded, see table 4.1.1	Low
Hurricane	-	This was excluded, see table 4.1.1	Low
Ice Storm	-	This was excluded, see table 4.1.1	Low
Landslides	Landslides	This was excluded, see table 4.1.1	Low
Lighting	-	This was excluded, see table 4.1.1	Low
Tornado	-	This was excluded, see table 4.1.1	Low
Winter Weather	Extreme Summer/Winter Weather	This was excluded, see table 4.1.1	Low
Avalanche	-	This was excluded, see table 4.1.1	N/A
Coastal Flooding	-	This was excluded, see table 4.1.1	N/A
Tsunami	-	This was excluded, see table 4.1.1	N/A
Volcanic Activity	-	This was excluded, see table 4.1.1	N/A
-	Pandemic	This was excluded, see table 4.1.1	
-	Terrorism	This was excluded, see table 4.1.1	
-	Hazmat Incidents	This was excluded, see table 4.1.1	
-	Pipeline	This was excluded, see table 4.1.1	
-	Power Outage	This was excluded, see table 4.1.1	
-	Civil Unrest	This was excluded, see table 4.1.1	
-	Nuclear Incident	This was excluded, see table 4.1.1	
-	Insect Infestation	This was excluded, see table 4.1.1	
-	Transportation	This was excluded, see table 4.1.1	
-	Disease/Contamination	This was excluded, see table 4.1.1	
-	Jail/Prison Event	This was excluded, see table 4.1.1	
-	Aqueduct	This was excluded, see table 4.1.1	

3.3 Mitigation Project Updates from 2018 Plan

The 2018 LHMP identified six Capital Improvement Project (CIP) actions. Two of these CIP actions were completed and will be removed from the mitigation actions prioritization list. The other three are not completed due to funding issues but will be removed as they do not meet the necessary criteria as a mitigation action, within the definition for an LHMP. Only one Mitigation action will be included in the 2023 update, as it is an ongoing Flood Mitigation action.

Table 3.3.1 Mitigation Action Updates from 2018 LHMP

2018 LHMP PROJECT	ACTIONS	MITIGATION COMMENT	DEPT	2023 UPDATE
Improve Infrastructure	Action 1: Renovation and addition to City Hall Project	Renovate to add more space for personnel and an Emergency Operations Center for coordination and response to hazards affecting the city.	Admin/PW	Not included in 2023 Update – Not applicable. See note 3.3
Improve Response Infrastructure	Action 2: Rehabilitation of Existing Fire Stations Project	Rehabilitate the two existing fire stations. Both fire stations are critical facilities City of Beaumont awarded a contract for construction services for the upgrade and replacement of all electrical systems in facility. The panels will be completely replaced and upgraded along with all wiring.	Facilities /Community Services	Not included in 2023 Update – not applicable. See note 3.3
Improve Infrastructure	Action 3: Oak Valley Bridge Rehabilitation Project	The bridge connects the easterly and westerly portion of the city, which allows traffic from the eastbound direction to access the I-10 freeway heading westbound. In the event of evacuation from the city, the bridge allows for traffic to cross Noble Creek and merge onto the I-10 freeway.	Public Works	Completed – Not included in 2023 update
Improve Infrastructure	Action 4: Beaumont Avenue Reconstruction Project	During evacuation from the city, Beaumont Avenue allows northbound and southbound traffic to merge onto the I-10 freeway for city evacuation. New asphalt pavement is	Public Works	Completed – Not included in 2023 update

		critical to safe evacuation routes.		
Flooding	Action 5: Storm Drain Master Plan and Storm Drain Facilities Rehabilitation Project	The city has a planned storm drain master plan project for the future. Constructing the storm drain master plan will allow the city to identify deficient areas where flooding occurs. Drainage improvement recommendations will be given for the areas, which experience flooding. New storm drain facilities will have to be implemented in flooding areas to mitigate flooding. The State Water Board has passed the trash amendment, which requires installing new capture devices on existing storm drain facilities to reduce trash accumulation in downstream water bodies. Retrofitting and installing new storm drain facilities is critical to the city. The city intends to retrofit and perform maintenance in portions of the city rather than one big project because of funding.	Public Works	Included in 2023 Update – See Table 7.2.6.
Improve Infrastructure	Action 6: Annual Slurry Seal and Annual Citywide Street Rehabilitation Project	The annual slurry seal and annual street rehabilitation projects are included in the City budget annually. The annual slurry seal rehabilitation project is for preventative maintenance purposes. Applying slurry seal to existing roads increases the road service life by (5) to (7) years. The annual street rehabilitation project is for repairing deteriorated roads. Deteriorated roads need pavement reconstruction treatment rather than slurry seal treatment. Slurry seal application is for existing roads that are in a relatively good condition.	PW	Not included in 2023 Update – not applicable. See note 3.3

3.4 Future Capital Improvement Projects

Capital improvement projects are essential to constructing, repairing, and maintaining public infrastructure such as roads, sewer facilities, storm drain facilities, domestic waster facilities, water treatment facilities, street lighting facilities, sidewalk, curb and gutter, traffic signalization, police stations, and fire stations. For road capital improvement projects, majority of the funds received are from federal or state grants or gas taxes. Improvement of road infrastructure is limited by the amount of funds received. Deficits in funding will limit the amount of capital improvement projects that the city can complete.

The city has compiled a list of capital improvement projects that it intends on completing within the next five years beginning from fiscal year 2022/2023 and ending in fiscal year 2026/2027.

1. Pennsylvania Widening - This project will add 2 additional lanes from 1st Street to 6th Street which will increase emergency response times and facilitate evacuation in the event of a disaster. Pennsylvania project will be budgeted for fiscal year 2022/2023 and 2nd Street is budgeted for fiscal year 2022/2023 to 2023/2024. This project if fully funded with a budget of approximately \$8,400,000, funded by the General Fund, Road and Bridge DIF, TUMF, and Appropriations monies.
2. Annual Citywide Street Rehabilitation and Maintenance-- As part of preventative maintenance, The City of Beaumont will be performing street restoration to help preserve streets surrounding the City. This project is budgeted for fiscal years 2022/2023 to 2026/2027. The annual budget is approximately \$2,500,000 which will provide better roads and facilitate evacuations and increase emergency response times.
3. Michigan Ave. Storm Drain Culvert Crossing—This project will install a culvert crossing across Michigan Ave and downstream conveyance at 52 S Michigan Ave. The property located at 52 S Michigan Ave is along a natural drainage course and the residence is routinely inundated. The proposed culvert crossing, and downstream conveyance will help prevent flooding up to the 100 year storm event. This project is complete with a total cost is at approximately \$30,200, funded by the General Fund.
4. Fire Station 106 – The City is building a new fire station, storage building, parking area, new access roads, and landscaping along the eastern side of Potrero Boulevard in Beaumont, California (Project). The Project will improve fire service response times for local residents, particularly on the western side of the City. The cost for the project is approximately \$8,650,000, funded by Fire Station DIF, Bond Proceeds, and the General Fund. Fire station 106 is under construction and expected to be completed by the end of 2023.
5. Third Street to California Ave Storm Drain— Replace existing earthen channel with underground storm drain system from Third Street to California Avenue. Possible alignment within public right-of-way or along same alignment as existing channel. The existing channel

occurs along several private properties. The channel is grossly undersized, poorly maintained (private) and contributes to frequent flooding of the surrounding properties. This project is budgeted for fiscal years 2023/2024 and the total cost is at approximately \$650,000, funded by the General Fund. Completing project will help mitigate the flooding hazard.

6. Potrero Interchange – The State Route 60 (SR-60)/Potrero Boulevard Interchange Phase II Project expands upon the recently constructed Potrero Boulevard Overcrossing. The project will add off-ramps, the loop on-ramps, and traffic signals. The improvements will increase emergency response times and facilitate evacuation in the event of a disaster. The estimated costs of these improvements is \$48,000,000, funded by TUMF, RCTC, and SB1 grant funds.
7. Second Street Extension - The City plans to alleviate traffic congestion on 1st Street between Highland Springs and Pennsylvania Avenue by extending 2nd Street, from the westerly boundary of the Home Depot shopping center to the proposed intersection at Pennsylvania Avenue. The improvements include extending 2nd Street approximately 1700 feet from its current terminus at the westerly boundary of First Street Self and RV Storage, to Pennsylvania Avenue; also, widening approximately 1150 feet of 2nd Street from its current terminus to the westerly boundary of the Home Depot shopping center. This increase emergency response times and facilitate evacuation in the event of a disaster. The estimated costs of these improvements are \$4,500,000 and is funded by Road and Bridge DIF, the General Fund, and RCTC grant funds.
8. Highland Springs Interchange - This project intends to modify the local arterials, Highland Springs Avenue, and Joshua Palmer Way, to eliminate the left-turn conflicts and reduce traffic queuing delays such that a level-of-service (LOS) D or better is maintained over the course of the 20-year time horizon, 2025 through 2045. This project will reduce congestion at the current interchange and increase emergency response times and facilitate evacuation in the event of a disaster. The estimated costs of these improvements are \$40,000,000 and is currently unfunded.
9. Pennsylvania Grade Separation - The Pennsylvania Avenue Grade Separation Project will separate the grade elevations at the existing railroad crossing on Pennsylvania Avenue in the City of Beaumont, CA. The railroad will remain at the existing elevation, and Pennsylvania Avenue will be constructed to pass under the railroad crossing. Pennsylvania Avenue will be lowered approximately 20 feet to construct the new underpass. This project will reduce congestion at the current interchange and increase emergency response times and facilitate evacuation in the event of a disaster. The estimated costs of these improvements are \$45,000,000 and is currently unfunded.
10. Oak Valley Interchange – The Interstate 10/Oak Valley Interchange Project will realign and reconstruct new on and off ramps and include a new bridge structure. The improvements will increase emergency response times and facilitate evacuation in the event of a disaster. The estimated costs of these improvements are \$65,000,000 for construction and is unfunded. \$7,000,000 has been allocated for engineering, funded by TUMF.

Section 4.0 - HAZARD IDENTIFICATION AND RISK ASSESSMENT

Element B - Risk Assessment & Hazard Identification Requirements

Requirement §201.6(c)(2): [The plan shall include] A risk assessment that provides the factual basis for activities proposed in the strategy to reduce losses from identified hazards. Local risk assessments must provide sufficient information to enable the jurisdiction to identify and prioritize appropriate mitigation actions to reduce losses from identified hazards.

Requirement §201.6(c)(2)(i): [The risk assessment shall include a] description of the type, location and extent of all natural hazards that can affect the jurisdiction. The plan shall include information on previous occurrences of hazard events and on the probability of future hazard events.

4.1 Hazard Identification

The city conducted hazard identification study to determine the hazards that threaten the Planning Area. This section details the methodology and results of this effort. The following data sources were used for this Hazard Identification portion of the Plan Update:

- 2040 General Plan
- 2018 Riverside County MJLHMP
- California Franchise Board Disaster Declaration Website
- NOAA Storm Events Database
- FEMA National Risk Index Comparison
- FEMA Disaster Declaration Database

Using existing natural hazards data, a list of natural hazards that could affect the city. Hazards data from the California Office of Emergency Services (Cal OES), FEMA, the National Oceanic and Atmospheric Administration (NOAA), and many other sources were examined to assess the significance of these hazards to the city. Significance of each identified hazard was measured in quantitative terms and focused on key criteria such as frequency and resulting damage, which includes deaths and injuries, as well as property and economic damage. The natural hazards evaluated as part of this LHMP include those that have occurred historically or have the potential to cause significant human and/or monetary losses in the future.

As a starting point, a National Risk Index Comparison Report for the census tracts in the Planning Area was run to identify hazards of concern to the city. Building upon this effort, the Disaster Declaration Database was download from FEMA and the California Treasures Office, additionally, a storms data search was conducted via the NOAA Website. The HMP also considered and the City's 2040 General Plan Safety Element and 2018 Riverside County MJLHMP. Based upon these historical documents, the city of Beaumont identified 2-High Significant hazards and 3-Medium Significant hazards, which were profiled and had vulnerability assessments conducted in the LHMP Update see Table 4.1.1.

The City of Beaumont identified top hazards for the city and its sphere of influence as Earthquakes (High), Wildfires (High), Flooding (Medium), Storms (Medium), and Drought (Medium).

Table 4.1.1. Beaumont Hazard Identification Risk Matrix 2023

Hazard	Geographic Extent	Likelihood of Future Occurrence	Magnitude/Severity	Significance
Earthquake	Extreme	Occasional	Catastrophic	High
Wildfire	Significant	Highly Likely	Critical	High
Heat Wave	Extreme	Likely	Limited	Medium
Flooding	Significant	Highly Likely	Limited	Medium
Drought	Extreme	Likely	Critical	Medium
Strong Winds	Significant	Likely	Negligible	Low
Cold Wave	Extreme	Occasional	Negligible	Low
Hail	Significant	Occasional	Negligible	Low
Hurricane	Extreme	Unlikely	Limited	Low
Ice Storm	Significant	Occasional	Negligible	Low
Landslides	Limited	Unlikely	Negligible	Low
Lightning	Limited	Likely	Negligible	Low
Tornado	Limited	Unlikely	Limited	Low
Winter Weather	Significant	Occasional	Negligible	Low
Avalanche	N/A	N/A	N/A	N/A
Coastal Flooding	N/A	N/A	N/A	N/A
Tsunami	N/A	N/A	N/A	N/A
Volcanic Activity	N/A	N/A	N/A	N/A

Geographic Extent

Limited: Less than 10% of planning area
Significant: 10-25% of planning area
Extensive: 25 -50 % of planning area
Extreme: 50-100% of planning area
Likelihood of Future Occurrences

Highly Likely: Near 100% chance of occurrence in next year, or happens every year
Likely: Between 10 and 100% chance of occurrence in next year, or has a recurrence interval of 10 years or less
Occasional: Between 1 and 10% chance of occurrence in the next year, or has a recurrence interval of 11 to 100 years
Unlikely: Less than 1% chance of occurrence in the next 100 years, or has a recurrence interval of greater than every 100 years

Magnitude/ Severity

Catastrophic—More than 50 percent of property severely damaged; shutdown of facilities for more than 30 days; and/or multiple deaths
Critical—25-50 percent of property severely damaged; shutdown of facilities for at least two weeks; and/or injuries and/or illnesses result in permanent disability
Limited—10-25 percent of property severely damaged; shutdown of facilities for more than a week; and/or injuries/illnesses treatable do not result in permanent disability
Negligible—Less than 10 percent of property severely damaged, shutdown of facilities and services for less than 24 hours; and/or injuries/illnesses treatable with first aid

Significance

High: widespread potential impact
Medium: moderate potential impact
Low: minimal potential impact

Based upon these historical documents, certain hazards were excluded from consideration for this LHMP Update and they are listed in Table 4.1.2.

Table 4.1.2. 2023. LHMP excluded hazards.

Hazard Excluded	Reason for Exclusion
Aqueduct	The City does not have an aqueduct that could cause flooding or potential inundation.
Avalanches	The City does not have sufficient snowfall to have avalanche as a hazard.
Civil Disturbance	While civil disturbances occur from time to time, there are other avenues outside of this Plan Update to address this hazard.
Coastal Flooding	Due to the distance from the coast, and limited chance of waters reaching the city coastal flooding was excluded from consideration.
Cold Wave	There are low numbers of freeze events in the city.
Cyber Threats	While the potential for cyber threats exists, there are other avenues outside of this Plan Update to address this hazard.
Drought	While droughts can occur in the city, this hazard has been moved to a low significance, due to it having limited impact on the physical infrastructure.

Hail	There are low numbers of hail events in the city.
Hazmat Incidents	While hazardous materials releases can occur, there are other avenues outside of this Plan Update to address this hazard.
Hurricane	While hurricane can occur along the coast, there have been no instances where it has caused a significant impact on the city.
Ice Storm	While ice storms can occur, there have been no instances where it has caused significant impact the city.
Insects Pests and Diseases	While pests and diseases from insects can occur, there have been no instances where it has affected the city.
Jail/Prison Event	While the potential for jail/prison event exists, there are other avenues outside of this Plan Update to address this hazard.
Nuclear Incident	While radiological accidents may occur, there are other avenues outside of this Plan Update to address this hazard.
Pandemic	While the potential for a pandemic exists, there are other avenues outside of this Plan Update to address this hazard.
Pipeline	While hazardous materials releases can occur, there are other avenues outside of this Plan Update to address this hazard.
Power Outage	While energy emergencies occur from time to time, there are other avenues outside of this Plan Update to address this hazard.
Terrorism	While the potential for terrorism exists, there are other avenues outside of this Plan Update to address this hazard.
Tornado	While tornados can occur, there have been no instances where it has affected the city.
Transportation	While transportation incidents can occur, there are other avenues outside of this Plan Update to address this hazard.
Volcano	Due to the distance from volcanoes, and the limited chance of an eruption, volcano was excluded from consideration.
Winter Weather	While winter weather/storms can occur, the associated hazard comes from flooding and will be addressed in that hazard.

4.2 Disaster Declaration History

One method to identify hazards based upon past occurrences is to look at what events triggered federal and/or state disaster declarations within the Operational Area (OA). Disaster declarations are granted when the severity and magnitude of the event's impact surpass the ability of the local government to respond and recover. Disaster assistance is supplemental and sequential. When the local government's capacity has been surpassed, a state disaster declaration may be issued, following the local agency's declaration, allowing for the provision of state assistance. Should the disaster be so severe that both the local and state government's capacity is exceeded, a federal disaster declaration may be issued allowing for the provision of federal disaster assistance.

The federal government may issue a disaster declaration through FEMA, the U.S. Department of Agriculture (USDA), and/or the Small Business Administration (SBA). FEMA also issues emergency declarations, which are more limited in scope and without the long-term federal recovery programs of major disaster declarations. The quantity and types of damage are the determining factors. This section focuses on state and federal disasters and emergency declarations that have occurred within Riverside County.

Riverside County has experienced 50 federal declarations since 1990 and 10 state declarations since 2015. Out of these 60 declarations 1 was associated with an earthquake event, 2 from biological events, 2 from freezing events, 3 from flooding events, 14 from severe storms, 34 from fires, 1 with hurricane (for evacuations stemming from Hurricane Katrina in 2005). Details of federal and state disaster declarations is shown in Table 4.2.1, and Table 4.2.2.

Table 4.2.1. Summary of Federal Declarations in Riverside County

Year	Disaster Type	Disaster Cause	County	Disaster Number	Federal Declaration Date
1990	Fire	FIRES	Riverside	DR-872	6/30/1990
1991	Freezing	SEVERE FREEZE	Riverside	DR-894	2/11/1991
1992	Earthquake	EARTHQUAKE & AFTERSHOCKS	Riverside	DR-947	7/2/1992
1993	Flood	SEVERE WINTER STORM, MUD & LAND SLIDES, & FLOODING	Riverside	DR-979	2/3/1993
1994	Fire	FIRES, MUD/LANDSLIDES, FLOODING, SOIL EROSION	Riverside	DR-1005	10/28/1993
1995	Severe Storm	SEVERE WINTER STORMS, FLOODING LANDSLIDES, MUD FLOW	Riverside	DR-1046	3/12/1995
1995	Severe Storm	SEVERE WINTER STORMS, FLOODING, LANDSLIDES, MUD FLOWS	Riverside	DR-1044	1/10/1995
1998	Severe Storm	SEVERE WINTER STORMS AND FLOODING	Riverside	DR-1203	2/9/1998
2003	Fire	CA-LOCUST WILDFIRE	Riverside	FM-2491	8/19/2003
2003	Fire	CA-RAILROAD FIRE	Riverside	FM-2475	7/3/2003
2003	Fire	CANYON FIRE	Riverside	FM-2487	7/25/2003
2004	Fire	WILDFIRES, FLOODING, MUDFLOW AND DEBRIS FLOW	Riverside	DR-1498	10/27/2003
2004	Fire	CA - PLEASURE FIRE	Riverside	FM-2515	4/26/2004
2004	Fire	CA-CERRITOS FIRE	Riverside	FM-2517	5/4/2004
2004	Fire	CA-EAGLE FIRE	Riverside	FM-2516	5/4/2004
2004	Fire	CA-MELTON WILDFIRE	Riverside	FM-2533	7/18/2004
2004	Fire	PASS FIRE	Riverside	FM-2500	10/21/2003
2004	Fire	CA-LAKEVIEW	Riverside	FM-2530	7/14/2004

2004	Fire	CA-MOUNTAIN FIRE	Riverside	FM-2507	10/26/2003
2005	Hurricane	HURRICANE KATRINA EVACUATION	Riverside	EM-3248	9/13/2005
2005	Severe Storm	SEVERE STORMS, FLOODING, LANDSLIDES, AND MUD AND DEBRIS FLOWS	Riverside	DR-1585	4/14/2005
2005	Severe Storm	SEVERE STORMS, FLOODING, DEBRIS FLOWS, AND MUDSLIDES	Riverside	DR-1577	2/4/2005
2006	Fire	ORCHARD FIRE	Riverside	FM-2676	9/17/2006
2006	Fire	WOODHOUSE FIRE	Riverside	FM-2584	10/6/2005
2006	Fire	SIERRA FIRE	Riverside	FM-2630	2/6/2006
2007	Fire	ESPERANZA FIRE	Riverside	FM-2678	10/26/2006
2007	Freezing	SEVERE FREEZE	Riverside	DR-1689	3/13/2007
2008	Fire	WILDFIRES, FLOODING, MUD FLOWS, AND DEBRIS FLOWS	Riverside	DR-1731	10/24/2007
2008	Fire	WILDFIRES	Riverside	EM-3279	10/23/2007
2009	Fire	WILDFIRES	Riverside	DR-1810	11/18/2008
2009	Fire	FREEWAY FIRE COMPLEX	Riverside	EM-2792	11/15/2008
2010	Severe Storm	SEVERE WINTER STORMS, FLOODING, AND DEBRIS AND MUD FLOWS	Riverside	DR-1884	3/8/2010
2011	Flood	SEVERE WINTER STORMS, FLOODING, AND DEBRIS AND MUD FLOWS	Riverside	DR-1952	1/26/2011
2013	Fire	SUMMIT FIRE	Riverside	FM-5023	5/1/2013
2013	Fire	FALLS FIRE	Riverside	FM-5040	8/6/2013
2013	Fire	SILVER FIRE	Riverside	FM-5041	8/8/2013
2018	Fire	CANYON FIRE	Riverside	FM-5213	9/26/2018
2018	Flood	SEVERE WINTER STORMS, FLOODING, AND MUDSLIDES	Riverside	DR-4305	3/16/2018
2018	Fire	WILDFIRES	Riverside	EM-3396	12/8/2018
2018	Fire	HOLY FIRE	Riverside	FM-5268	8/9/2018
2018	Fire	CRANSTON FIRE	Riverside	FM-5260	7/25/2018
2018	Fire	CANYON 2 FIRE	Riverside	FM-5223	10/9/2018

2019	Severe Storm	SEVERE WINTER STORMS, FLOODING, LANDSLIDES, AND MUDSLIDES	Riverside	DR-4431	5/1/2019
2020	Biological	COVID-19	Riverside	EM-3428	3/13/2020
2020	Biological	COVID-19 PANDEMIC	Riverside	DR-4482	3/22/2020
2020	Fire	HILL FIRE	Riverside	FM-5299	10/30/2019
2020	Fire	APPLE FIRE	Riverside	FM-5325	8/2/2020
2020	Fire	46 FIRE	Riverside	FM-5300	10/31/2019
2021	Fire	BLUE RIDGE FIRE	Riverside	FM-5381	10/26/2020
2023	Fire	FAIRVIEW FIRE	Riverside	FM-5451	9/6/2023

Source: Open FEMA Data Set: Disaster Declarations Summaries

Table 4.2.2. Summary of Federal Declarations in Riverside County

Year	Month	Disaster	County	Disaster Code	Governor Declared
2015	July	Severe Rainstorms	Riverside	65	Yes
2018	January	January Winter Storms	Riverside	77	Yes
2018	July	Cranston Fire	Riverside	102	Yes
2018	August	Holy Fire	Riverside	106	Yes
2019	January - February	Atmospheric River Storm System	Riverside	109	Yes
2019	October	Eagle, Reche, Saddleridge, Sandalwood, and Wolf Fires	Riverside	112	Yes
2019	October	Extreme Wind and Fire Weather Conditions	All California counties	114	Yes
2020	August - September	Fires and Extreme Weather Conditions	Declared by Governor only: All other California counties not listed above	115	Yes
2023	September	Fairview & Mosquito Fires	Riverside	133	Yes
2023	September	Tropical Storm Kay	Riverside	135	Yes

Source: State of California Franchise Tax Board

4.3 Hazard Profiles

Element B - Risk Assessment & Hazard Identification Requirements

Requirement §201.6(c)(2)(i): [The risk assessment shall include a] description of the type, location and extent of all natural hazards that can affect the jurisdiction. The plan shall include information on previous occurrences of hazard events and on the probability of future hazard events.

The hazards identified in Section 4.1 Hazard Identification, are profiled individually in this section. These profiles set the stage for Section 4.5 Vulnerability Assessment, where the vulnerability is quantified for each of the priority hazards.

Those hazards that are not profiled in this section are covered in the Riverside County MJLHMP. Each hazard is profiled in the following format:

- **Hazard/Problem Description**—This section gives a description of the hazard and associated issues followed by details on the hazard specific to the City Planning Area. Where known, this includes information on the hazard location, extent, seasonal patterns, speed of onset/duration, and magnitude and/or any secondary effects.
- **Past Occurrences**—This section contains information on historical incidents, including impacts where known. The extent and location of the hazard within or near the city's Planning Area is also included here. Historical incident worksheets and other input from the HMP were used to capture information on past occurrences along with other data sources.
- **Frequency/Likelihood of Future Occurrence**—The frequency of past events is used in this section to gauge the likelihood of future occurrences. Where possible, frequency was calculated based on existing data. It was determined by dividing the number of events observed by the number of years on record and multiplying by 100. This gives the percent chance of the event happening in any given year (e.g., three droughts over a 30-year period equates to a 10 percent chance of experiencing a drought in any given year). The likelihood of future occurrences is categorized into one of the following classifications:
 - **Highly Likely**—Near 100 percent chance of occurrence in next year or happens every year
 - **Likely**—Between 10 and 100 percent chance of occurrence in next year or has a recurrence interval of 10 years or less
 - **Occasional**—Between 1 and 10 percent chance of occurrence in the next year or has a recurrence interval of 11 to 100 years
 - **Unlikely**—Less than 1 percent chance of occurrence in next 100 years or has a recurrence interval of greater than every 100 years.

4.3.1 Earthquake

Hazard/Problem Description: An earthquake is a sudden, rapid shaking of the ground caused by the breaking and shifting of rock beneath the earth's surface. For hundreds of millions of years, the forces of plate

tectonics have shaped the Earth as the huge plates that form the Earth's surface move slowly over, under, and past each other. Sometimes the movement is gradual. At other times, the plates are locked together, unable to release the accumulating energy. When the accumulated energy grows strong enough, the plates break free causing the ground to shake. Most earthquakes occur at the boundaries where the plates meet; however, some earthquakes occur in the middle of plates.

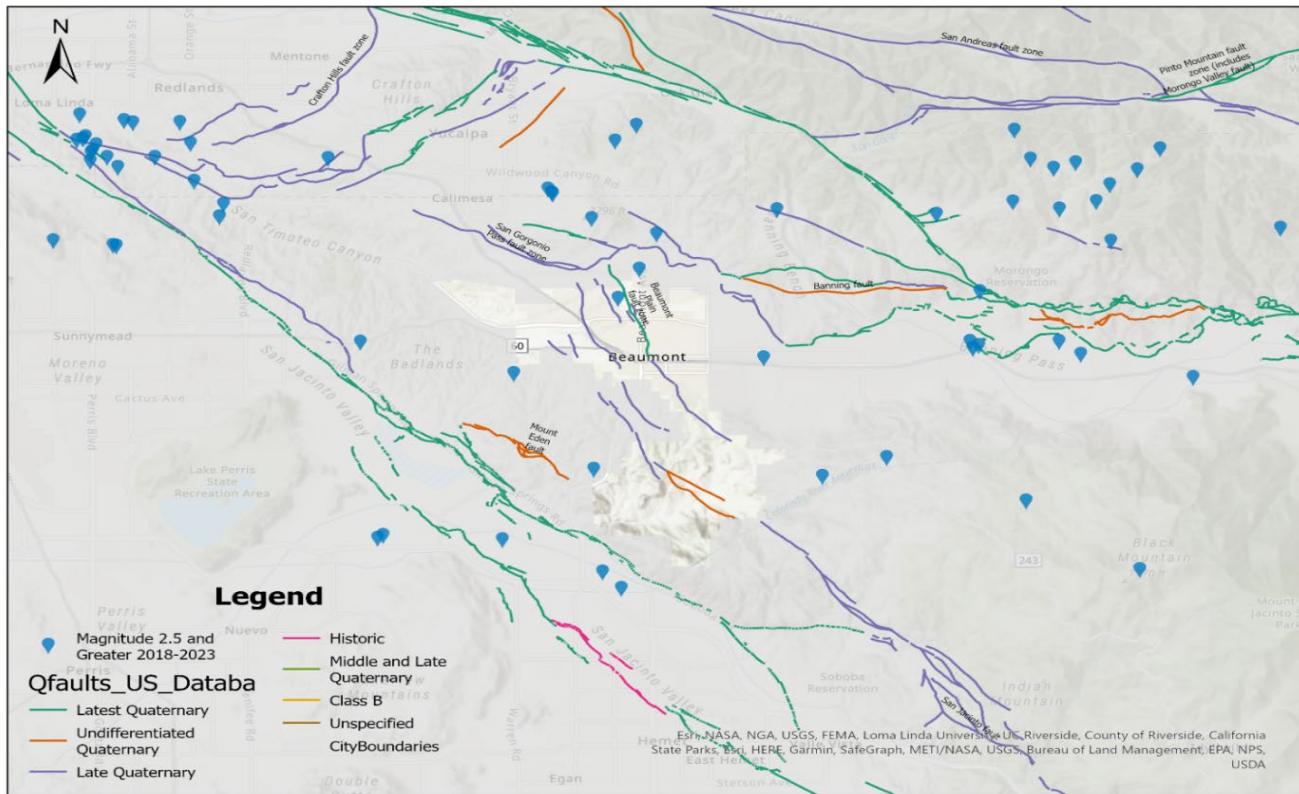
Where earthquakes have struck before, they can strike again, often without warning. The major form of direct damage from most earthquakes is damage to construction. Bridges are particularly vulnerable to collapse and dam failure may generate major downstream flooding. Buildings vary in susceptibility depending on their construction and the types of soils on which they are built. Earthquakes destroy utility infrastructure which, in turn, may set off fires, hinder rescue efforts, and impact normal functions for an extended period. The hazard of earthquakes varies from place to place depending on the regional and local geology. Ground shaking may occur 65 miles or more from the epicenter (the point on the ground surface above the focus). Ground shaking can change the mechanical properties of some fine grained, saturated soils, where upon the soils liquefy and act as a fluid (liquefaction).

Most earthquake-related injuries result from collapsing walls, flying glass, and falling objects because of the ground shaking.

Older buildings constructed before building codes were established, and even newer buildings constructed before earthquake-resistance provisions were included in the codes, are the most likely to be damaged during an earthquake. Buildings one or two stories high of wood-frame construction are the most structurally resistant to earthquake damage. Older masonry buildings without seismic reinforcement (unreinforced masonry) and soft story buildings are the most susceptible to the type of structural failure that causes injury or death.

Location: The Planning Area is in a geologically active part of the United States and is at risk to earthquakes from multiple faults. The region's geology is dominated by the intersection of the Pacific and North American tectonic plates, two components of the earth's crust that are moving in opposite directions. Large earthquake faults have developed in response to the stress between the plates. When enough strain builds up along a fault line, the plates slip, and an earthquake occurs.

Figure 4.3.1. Earthquake Faults and Ground Shaking



Extent: The speed of onset of earthquake is short. Duration of shaking is also short, though aftershocks may continue to occur for a period. The amount of energy released during an earthquake is usually expressed as a magnitude and is measured directly from the earthquake as recorded on seismographs. An earthquake's magnitude is expressed in whole numbers and decimals (e.g., 6.8).

Past Occurrences: Since 1990 there has only been one Presidential Declaration due to an earthquake.

Table 4.3.2. Earthquake Federal Disaster Declaration List

Year	Disaster Type	Disaster Cause	County	Disaster Number	Federal Declaration Date
1992	Earthquake	EARTHQUAKE & AFTERSHOCKS	Riverside	DR-947	7/2/1992

Likelihood of Future Occurrences: **Unlikely (major earthquake); Highly Likely (minor earthquake)**—It is likely that the city will be subject to minor earthquakes in the future. Major earthquakes are considered to be unlikely in the city.

4.3.2 Wildfire

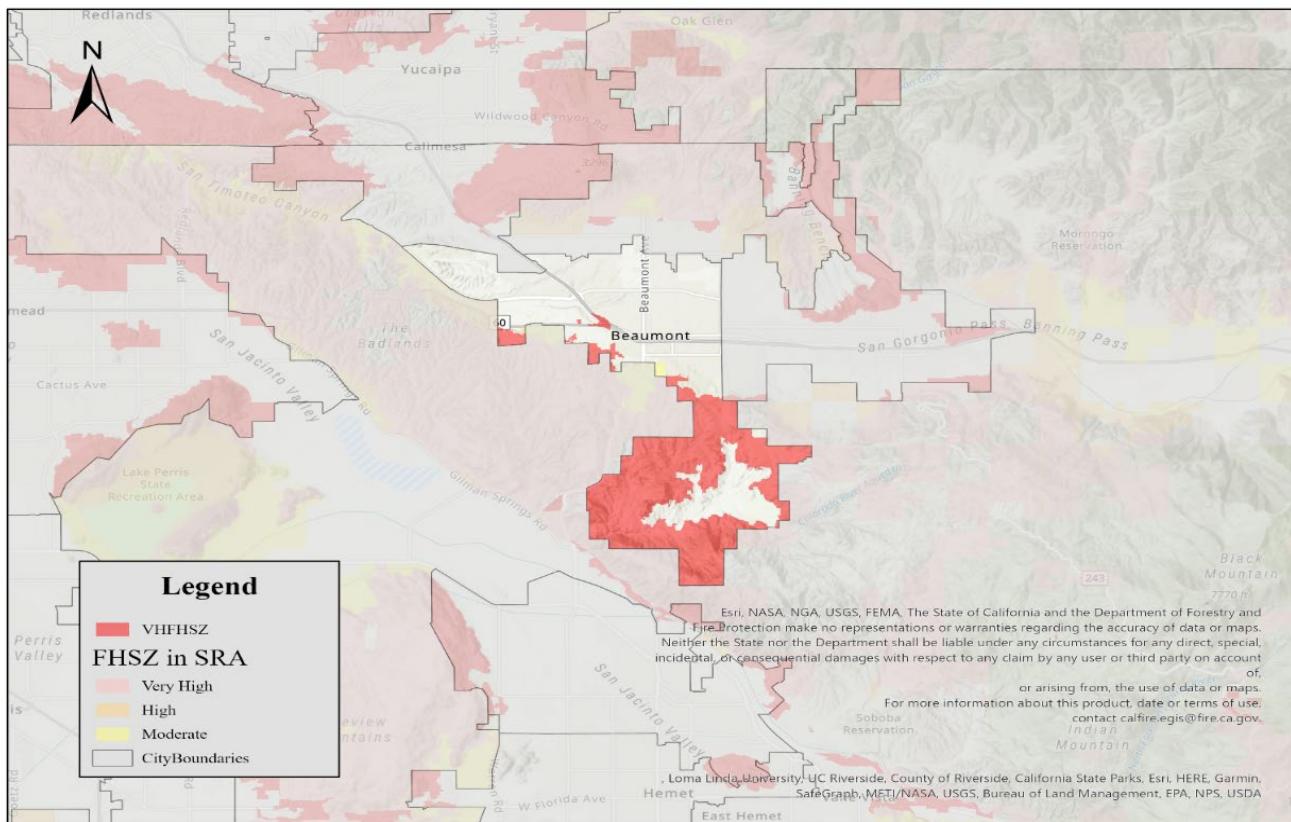
Hazard/Problem Description: California is recognized as one of the most fire-prone and consequently fire-adapted landscapes in the world. The combination of complex terrain, Mediterranean climate, and

productive natural plant communities, along with ample natural and aboriginal ignition sources, has created conditions for extensive wildfires. Wildland fire is an ongoing concern for Riverside County, and to the city of Beaumont. Historically in California, the fire season extended from early spring through late fall of each year during the hotter, dryer months. However, in recent years, wildfire season is more of a year around event. Fire conditions arise from a combination of high temperatures, low moisture content in the air and fuel, an accumulation of vegetation, and high winds.

Potential losses from wildfire include human life, structures and other improvements, natural and cultural resources, quality and quantity of water supplies, cropland, timber, and recreational opportunities. Economic losses also result. Smoke and air pollution from wildfires can be a severe health hazard. In addition, catastrophic wildfire can create favorable conditions post fire for other hazards such as flooding, landslides and mudflows, and erosion during the rainy season.

Location: The city is in the San Gorgonio Pass between the San Bernardino Mountains and the San Jacinto Mountains. Both mountain regions are heavily forested and routinely subject to forest fires. The forest fires that occur around the city limits create a significant fire risk to vulnerable areas within the city. CAL FIRE has mapped areas in California that are at risk to wildfire and categorizes them by risk. Figure 4.3.3 is a map of the city areas located in these High Fire Severity Areas.

Figure 4.3.3 City of Beaumont Wildfire Risk Map



Extent: Fires can have a quick speed of onset, especially during periods of drought. Fires can burn for a short period of time or may have durations lasting for a week or more. Fire can affect any area of the city, however Figure 4.3.3 is a map of the City Areas located in near High Fire Severity Areas.

Past Occurrences:

Table 4.3.4 defines those wildfires that have resulted in a disaster declaration within the County of Riverside since 1990.

Table 4.3.4. Wildfire Disaster Declaration Lists

Year	Disaster Type	Disaster Cause	County	Disaster Number	Federal Declaration Date
1990	Fire	FIRES	Riverside	DR-872	6/30/1990
1994	Fire	FIRES, MUD/LANDSLIDES, FLOODING, SOIL EROSION	Riverside	DR-1005	10/28/1993
2003	Fire	CA-LOCUST WILDFIRE	Riverside	FM-2491	8/19/2003

2003	Fire	CA-RAILROAD FIRE	Riverside	FM-2475	7/3/2003
2003	Fire	CANYON FIRE	Riverside	FM-2487	7/25/2003
2004	Fire	WILDFIRES, FLOODING, MUDFLOW AND DEBRIS FLOW	Riverside	DR-1498	10/27/2003
2004	Fire	CA - PLEASURE FIRE	Riverside	FM-2515	4/26/2004
2004	Fire	CA-CERRITOS FIRE	Riverside	FM-2517	5/4/2004
2004	Fire	CA-EAGLE FIRE	Riverside	FM-2516	5/4/2004
2004	Fire	CA-MELTON WILDFIRE	Riverside	FM-2533	7/18/2004
2004	Fire	PASS FIRE	Riverside	FM-2500	10/21/2003
2004	Fire	CA-LAKEVIEW	Riverside	FM-2530	7/14/2004
2004	Fire	CA-MOUNTAIN FIRE	Riverside	FM-2507	10/26/2003
2006	Fire	ORCHARD FIRE	Riverside	FM-2676	9/17/2006
2006	Fire	WOODHOUSE FIRE	Riverside	FM-2584	10/6/2005
2006	Fire	SIERRA FIRE	Riverside	FM-2630	2/6/2006
2007	Fire	ESPERANZA FIRE	Riverside	FM-2678	10/26/2006
2008	Fire	WILDFIRES, FLOODING, MUD FLOWS, AND DEBRIS FLOWS	Riverside	DR-1731	10/24/2007
2008	Fire	WILDFIRES	Riverside	EM-3279	10/23/2007

2009	Fire	WILDFIRES	Riverside	DR-1810	11/18/2008
2009	Fire	FREEWAY FIRE COMPLEX	Riverside	EM-2792	11/15/2008
2013	Fire	SUMMIT FIRE	Riverside	FM-5023	5/1/2013
2013	Fire	FALLS FIRE	Riverside	FM-5040	8/6/2013
2013	Fire	SILVER FIRE	Riverside	FM-5041	8/8/2013
2018	Fire	CANYON FIRE	Riverside	FM-5213	9/26/2018
2018	Fire	WILDFIRES	Riverside	EM-3396	12/8/2018
2018	Fire	HOLY FIRE	Riverside	FM-5268	8/9/2018
2018	Fire	CRANSTON FIRE	Riverside	FM-5260	7/25/2018
2018	Fire	CANYON 2 FIRE	Riverside	FM-5223	10/9/2018
2020	Fire	HILL FIRE	Riverside	FM-5299	10/30/2019
2020	Fire	APPLE FIRE	Riverside	FM-5325	8/2/2020
2020	Fire	46 FIRE	Riverside	FM-5300	10/31/2019
2021	Fire	BLUE RIDGE FIRE	Riverside	FM-5381	10/26/2020
2023	Fire	FAIRVIEW FIRE	Riverside	FM-5451	9/6/2023

Likelihood of Future Occurrences: **Highly Likely** — From May to October of each year, the city faces a fire threat. Due to its long summers, portions of the Planning Area continue to be at risk from wildfire.

4.3.3 Flooding

Hazard/Problem Description: A flood is defined as an overflowing of water onto an area of land that is normally dry. Floods generally occur from natural causes, usually weather-related, often in conjunction with a prolonged period of seasonal precipitation or with sudden and very heavy rain falls. Floods can, however, result from human causes as a dam impoundment bursting. Dam break floods are usually associated with intense rainfall or prolonged flood conditions. In the Riverside County area, a major earthquake could cause a dam failure. In a dam failure scenario, the greatest threat to life and property typically occurs in those areas located immediately below the dam since flood depths and discharges generally decrease as the flood wave moves downstream.

Floods are generally classed as either slow-rise or flash floods. Slow-rise floods may be preceded by a warning time lasting from hours to days, or possibly weeks. Evacuation and sandbagging for a slow rise flood may lessen the flood related damage. Conversely, flash floods are characterized by extremely short warning times.

There are generally three types of freshwater floods that can occur: riverine, flash, and urban stormwater. Regardless of the type of flood, the cause is often the result of severe weather and excessive rainfall, either in the flood area or upstream reaches.

- **Riverine flooding** is the most common type of flood event and occurs when a watercourse exceeds its “bank-full” capacity. Riverine flooding generally occurs because of prolonged rainfall, or rainfall that is combined with already saturated soils from previous rain events. The duration of riverine floods may vary from a few hours to many days. Factors that directly affect the amount of flood runoff include precipitation amount, intensity and distribution, the amount of soil moisture, seasonal variation in vegetation, snow depth, and water-resistance of the surface due to urbanization.
- The term “**flash flood**” describes localized floods of great volume and short duration. In contrast to riverine flooding, this type of flood usually results from a heavy rainfall on a relatively small drainage area. These types of floods can occur in the City of Beaumont and are most often associated with stormwater flood events.
- **Stormwater/Urban** flood events have increased as land has been converted from fields or woodlands to roads and parking lots and lost its ability to absorb rainfall. Urbanization increases runoff by two to six times that of natural terrain.

Location: The area adjacent to a channel is the floodplain. Floodplains are illustrated on flood maps, which show areas of potential flooding. The potential for flooding can change and increase through various land use changes and changes to land surface, which result in a change to the floodplain. A change in environment can create localized flooding problems inside and outside of natural floodplains by altering or confining natural drainage channels. These changes are most often created by human activity.

Extent: Floodplains most often refers to that area that is inundated by a 100-year flood, the flood that has a one percent chance in any given year of being equaled or exceeded (1% annual chance flood). The 1% annual chance of flood is the national minimum standard to which communities regulate their floodplains through the National Flood Insurance Program (NFIP). The 500-year flood is the flood that has a 0.2 percent chance of being equaled or exceeded in any given year (0.2% annual chance flood).

Likelihood of Future Occurrences: **Highly Likely** – Heavy rainfall associated with severe winter storms and atmospheric rivers are likely to continue to occur and increase in the Planning Area.

Past Occurrences: There have been two state declarations for flooding/severe storms in Riverside County since the last LHMP update in 2018 and a total of ten federal declarations for Riverside County for flooding/severe storms, since 1990.

Table 4.3.5 Riverside County Disaster Declaration from Flood and Severe Storms

Disaster Type	State Deceleration		Federal Deceleration	
	Count	Years	Count	Years
Flood	-	-	3	1993, 2011, 2017
Severe Storm	2	2019, 2022	7	1995, 1998, 2005, 2010, 2019

Source: FEMA, California Tax Franchise Board

Likelihood of Future Occurrences: **Highly Likely** – Heavy rainfall associated with severe winter storms and atmospheric rivers are likely to continue to occur and increase in the Planning Area.

4.3.4 Heat Wave

Hazard/Problem Description: According to information provided by FEMA, extreme heat is defined as temperatures that hover 10 degrees or more above the average high temperature for the region and last for several weeks. Heat kills by taxing the human body beyond its abilities. In a normal year, about 175 Americans succumb to the demands of summer heat. In the 40-year period from 1936 through 1975, nearly 20,000 people were killed in the United States by the effects of heat and solar radiation. In the heat wave of 1980, more than 1,250 people died.

Heat disorders generally have to do with a reduction or collapse of the body's ability to shed heat by circulatory changes and sweating or a chemical (salt) imbalance caused by too much sweating. When heat gain exceeds a level at which the body can remove it, or when the body cannot compensate for fluids and salt lost through perspiration, the temperature of the body's inner core begins to rise, and heat-related illness may develop. Elderly persons, small children, chronic invalids, those on certain medications or drugs, and persons with weight and alcohol problems are particularly susceptible to heat reactions.

Location: Extreme heat events occur on a regional basis. The Planning Area tends to have numerous extreme heat days exceeding 90°F, June - September. All portions of the city are at risk to extreme heat. Extreme heat occurs throughout the Planning Area primarily during the summer months. The WRCC maintains data

on weather normal and extremes in the western United States. WRCC data for the city is summarized in Table 4.3.6.

Table 4.3.6. Beaumont Temperature Data

Station:(040609) BEAUMONT 1 E															
From Year=1939 To Year=2012															
	Monthly Averages			Daily Extremes			Monthly Extremes			Max. Temp.		Min. Temp.			
	Max.	Min.	Mean	High	Date	Low	Date	Highest Mean	Year	Lowest Mean	Year	>= 90 F	<= 32 F	<= 32 F	<= 0 F
	F	F	F	F	dd/yyyy or yyyyymmdd	F	dd/yyyy or yyyyymmdd	F	-	F	-	# Days	# Days	# Days	# Days
January	60.3	38.4	49.3	83	07/1962	11	12/1949	56.8	1986	35.5	1949	0.0	0.0	6.7	0.0
February	63.1	38.8	51.0	88	08/1996	19	15/1942	59.1	1991	43.6	1944	0.0	0.0	5.2	0.0
March	65.8	39.9	52.9	95	26/1988	21	02/1953	61.6	1972	45.5	1952	0.1	0.0	3.3	0.0
April	71.9	42.7	57.3	100	06/1989	25	05/1955	64.4	1989	48.2	1967	1.3	0.0	1.1	0.0
May	78.6	47.5	63.0	106	21/2000	31	08/1950	71.5	1997	56.1	1953	4.7	0.0	0.0	0.0
June	87.5	52.2	69.9	109	14/2000	35	02/1955	78.2	1981	62.0	1944	13.8	0.0	0.0	0.0
July	95.5	58.2	76.8	114	28/1995	42	15/1944	81.0	1996	70.8	1944	26.5	0.0	0.0	0.0
August	95.0	58.8	76.9	113	05/1997	38	27/1954	82.5	1998	69.3	1954	25.5	0.0	0.0	0.0
September	90.1	55.5	72.8	112	02/1982	37	26/1948	78.2	1984	65.7	1941	17.5	0.0	0.0	0.0
October	80.1	49.1	64.6	106	01/1980	29	29/1961	69.9	1988	58.3	1946	5.4	0.0	0.1	0.0
November	69.0	42.9	55.9	92	03/1997	20	17/1958	63.0	1949	49.9	1952	0.2	0.0	2.0	0.0
December	61.7	39.2	50.5	86	05/1989	20	30/1955	57.3	1958	44.6	1971	0.0	0.0	5.4	0.0
Annual	76.6	46.9	61.8	114	19950728	11	19490112	64.7	1996	58.1	1944	95.1	0.0	23.8	0.0
Winter	61.7	38.8	50.3	88	19960208	11	19490112	55.2	1981	41.3	1949	0.0	0.0	17.3	0.0
Spring	72.1	43.4	57.8	106	20000521	21	19530302	64.0	1997	52.9	1945	6.1	0.0	4.4	0.0
Summer	92.7	56.4	74.5	114	19950728	35	19550602	79.1	1981	69.5	1944	65.9	0.0	0.0	0.0
Fall	79.7	49.2	64.5	112	19820902	20	19581117	69.0	1995	60.4	1961	23.1	0.0	2.1	0.0

Table updated on Oct 31, 2012

Source: Western Regional Climate Center

Extent: Heat emergencies are often slower to develop, taking several days of continuous, oppressive heat before a significant or quantifiable impact is seen. Heat waves do not strike victims immediately, but rather their cumulative effects slowly take the lives of vulnerable populations. Heat waves do not generally cause damage or elicit an immediate response to floods, fires, earthquakes, or other more “typical” disaster scenarios. While heat waves are less dramatic, they are potentially deadlier.

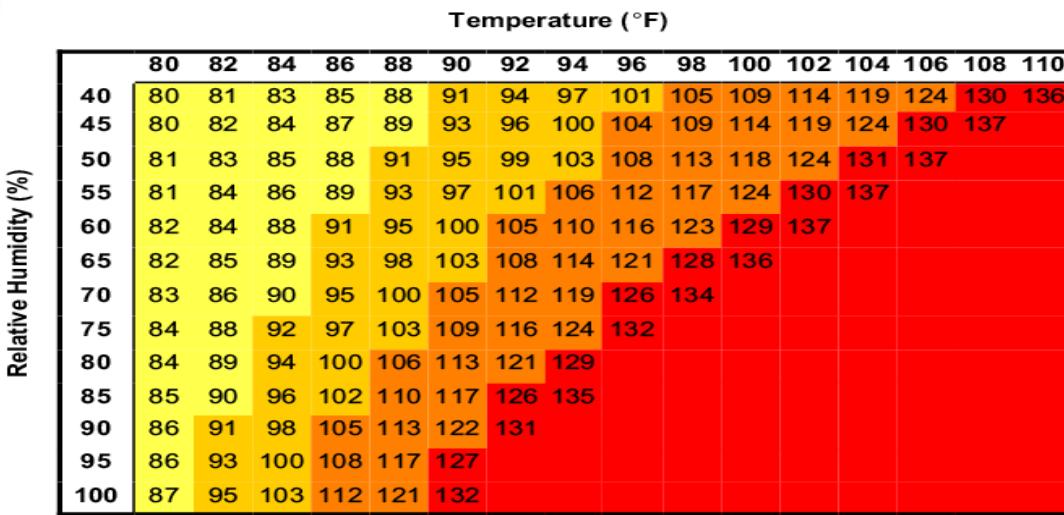
The Table 4.3.7 on the next page illustrates the Heat Index (HI) as a function of heat and relative humidity. The Heat Index describes how hot the heat-humidity combination makes the air feel. As relative humidity increases, the air seems warmer than it actually is because the body is less able to cool itself via evaporation of perspiration. As the Heat Index rises, so do health risks.

Specifically:

- When the Heat Index is 90°F, heat exhaustion is possible with prolonged exposure and/or physical activity.
- When it is 90° to 105°F, heat exhaustion is probable with the possibility of sunstroke or heat cramps with prolonged exposure and/or physical activity.
- When it is 105° to 129°F, sunstroke, heat cramps or heat exhaustion is likely, and heatstroke is possible with prolonged exposure and/or physical activity.
- When it is 130°F and higher, heatstroke and sunstroke are extremely likely with continued exposure. Physical activity and prolonged exposure to the heat increase the risks.



Figure 4.3.7. Heat Index Chart
National Weather Service
Heat Index Chart



Likelihood of Heat Disorders with Prolonged Exposure and/or Strenuous Activity

Yellow	Caution	Yellow	Extreme Caution	Orange	Danger	Red	Extreme Danger
--------	---------	--------	-----------------	--------	--------	-----	----------------

Past Occurrences: There have been no state and federal declarations or NCDC events in that the HMPC could locate. The National Risk Index list a total average of 65 heat wave events for the planning area and there HMPC has historical knowledge of multiple days of extreme heat over 100°F.

Likelihood of Future Occurrences: **Highly Likely**—Temperature extremes are likely to continue to occur annually in the Planning Area. Temperatures at or above 90°F can occur on summer days in the city.

4.3.5 Drought

Hazard/Problem Description: Drought is a gradual phenomenon. Although droughts are sometimes characterized as emergencies, they differ from typical emergency events. A drought is a period of unusually constant dry weather that persists long enough to cause deficiencies in water supply (surface or underground). Droughts are slow onset hazards, but, over time, they can severely affect crops, municipal water supplies, recreational resources, and wildlife. If drought conditions extend over a number of years, the direct and indirect economic impacts can be significant. High temperatures, high winds, and low humidity can worsen drought conditions and also make areas more susceptible to wildfire. In addition, human actions and demands for water resources can accelerate drought-related impacts.

Climate scientists studying California weather patterns find that drought conditions are likely to become more frequent and persistent over the 21st century due to climate change. The experiences of California during recent years underscore the need to examine more closely the state's water storage, distribution, management, conservation, and use policies.

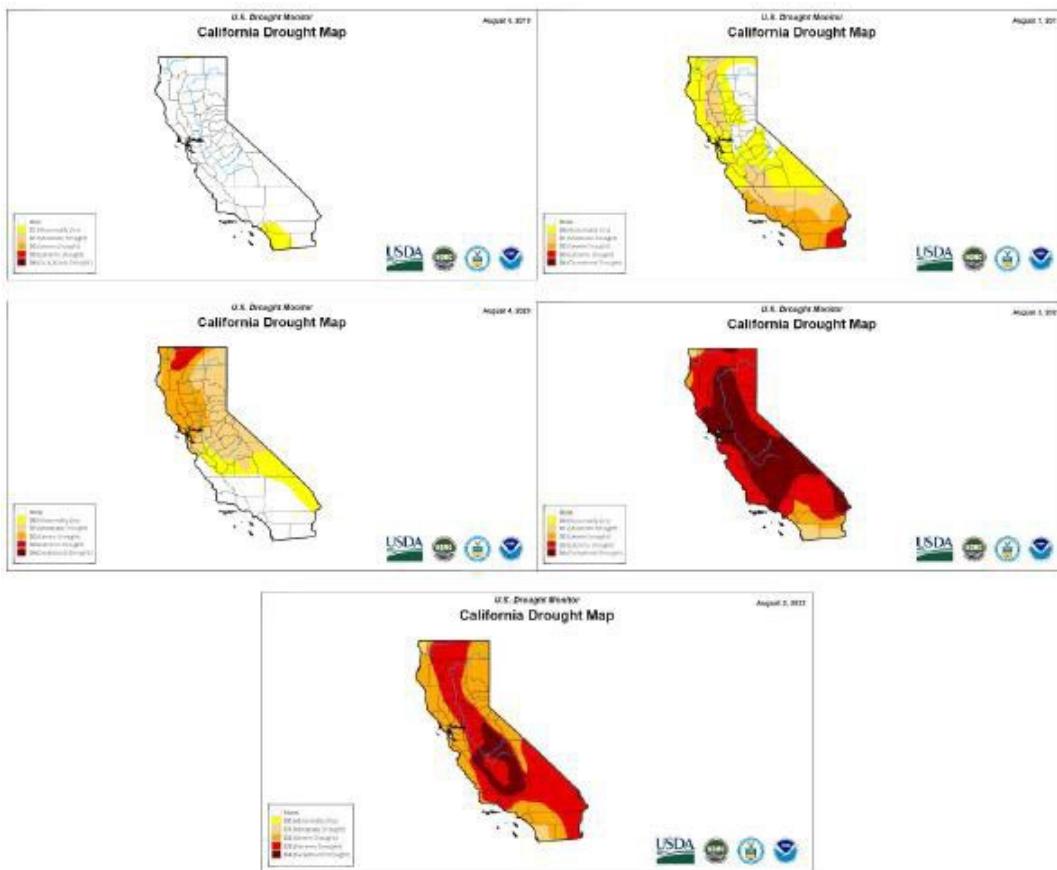
Drought is a complex issue involving many factors—it occurs when a normal amount of precipitation and snow is not available to satisfy an area's usual water-consuming activities. Drought can often be defined regionally based on its effects.

Location: Drought is a regional phenomenon. Drought affects the whole of the City. Drought in the United States is monitored by the National Integrated Drought Information System (NIDIS). A major component of this portal is the U.S. Drought Monitor. A snapshot of the drought conditions from 2018 to 2023 drought conditions in California and the Planning Area can be found in Figure 4.3.8.

The US Drought Monitor includes a scale to measure drought intensity:

- None
- DO (Abnormally Dry)
- D1 (Moderate Drought)
- D2 (Severe Drought)
- D3 (Extreme Drought)
- D4 (Exceptional Drought)

Figure 4.3.8: Riverside County Current Drought Conditions 2018 to 2022



Source: <https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?CA>

Extent: There is no established scientific scale to measure water shortage. The speed of onset of water shortage tends to be lengthy. The duration of water shortage can vary, depending on the severity of the drought that accompanies it.

Past Occurrences: There have been no state and federal declarations or NCDC events in that the HMPC could locate. The NRI lists an average of 1242 drought events among the Census Tracts within the Planning Area. The Public Policy Institute of California lists five significant droughts in California, since 1975.

Likelihood of Future Occurrences: **Likely**—As droughts happen gradually and are based upon the water supply, and a large geographical area, future droughts are likely in the planning area.

4.4 Vulnerability Assessment

Element B - Vulnerability Assessment

Requirement §201.6(c)(2)(ii): [The risk assessment shall include a] description of the jurisdiction's vulnerability to the hazards described in paragraph (c)(2)(i) of this section. This description shall include an overall summary of each hazard and its impact on the community.

Requirement §201.6(c)(2)(ii)(A): [The plan should describe vulnerability in terms of] the types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard areas.

Requirement §201.6(c)(2)(ii)(B): [The plan should describe vulnerability in terms of an] estimate of the potential dollar losses to vulnerable structures identified in paragraph (c)(2)(i)(A) of this section and a description of the methodology used to prepare the estimate.

Requirement §201.6(c)(2)(ii)(C): [The plan should describe vulnerability in terms of] providing a general description of land uses and development trends within the community so that mitigation options can be considered in future land use decisions.

The Disaster Mitigation Act regulations requires assessment of the risk and vulnerability associated with priority hazards identified in the planning process. This section summarizes the possible impacts and quantifies, where data permits, the city's vulnerability to each of the hazards profiled in Section 4.3.

An estimate of the vulnerability of the city to each identified hazard, in addition to the estimate of the likelihood of future occurrence, is provided in each of the hazard-specific sections that follow. Vulnerability is measured in general, qualitative terms and is a summary of the potential impact based on past occurrences, spatial extent, and damage and casualty potential. It is categorized into the following classifications:

- **Low**—Minimal potential impact. The occurrence and the potential cost of damage to life and property is minimal.
- **Medium**—Moderate potential impact. This ranking carries a moderate threat level to the general population and/or built environment. Here the potential damage is more isolated and less costly than a more widespread disaster.
- **High**—Widespread potential impact. This ranking carries a high threat to the general population and/or built environment. The potential for damage is widespread. Hazards in this category may have occurred in the past.

Vulnerability can be quantified when there is a known, identified hazard area, such as a mapped floodplain. In these instances, the numbers and types of buildings subject to the identified hazard can be counted and their values tabulated.

4.4.1 Earthquake Vulnerability Assessment

Likelihood of Future Occurrence—Highly Likely

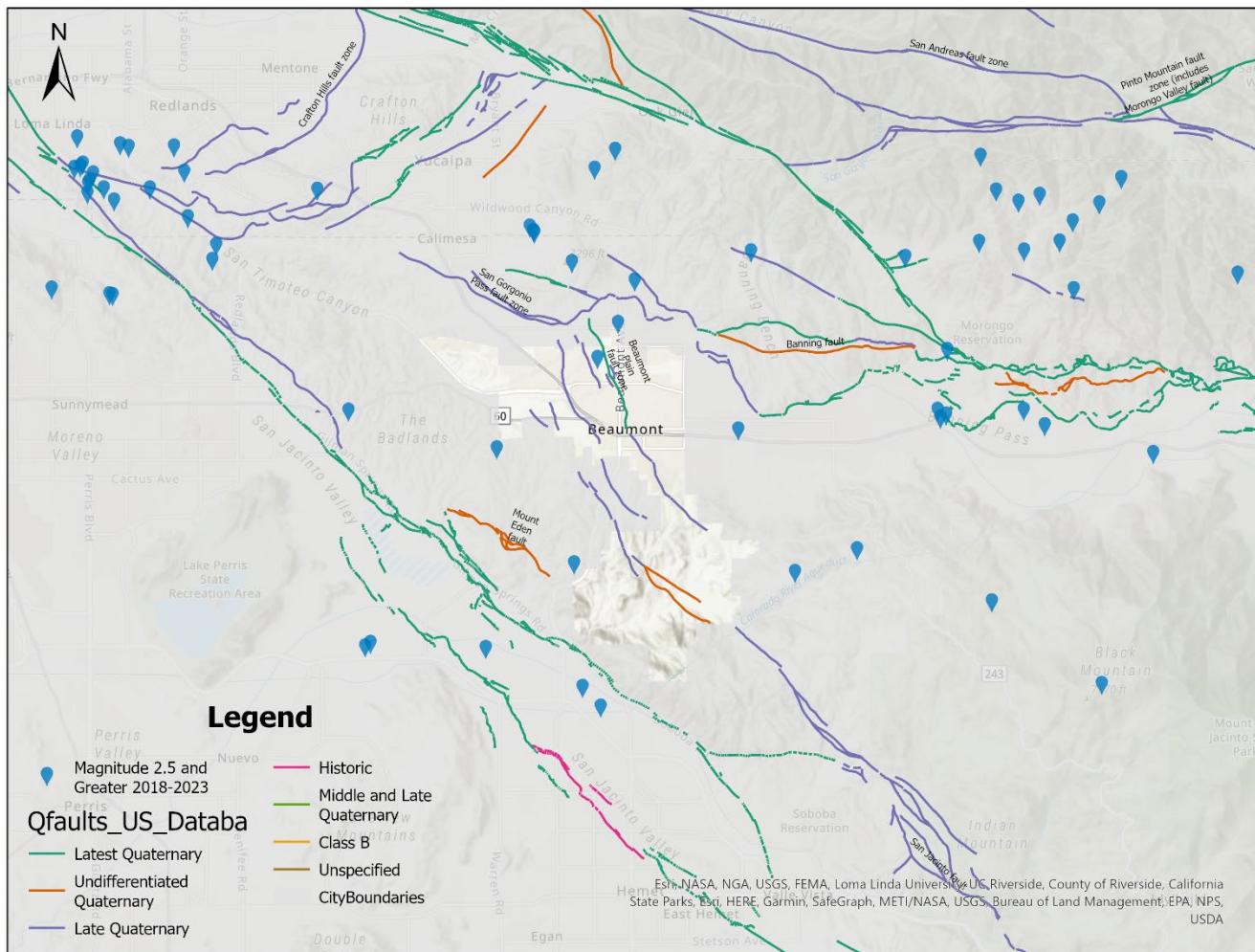
Vulnerability—High

Hazard Summary: Ground shaking is typically the greatest hazard and major cause of damage. The transmission of earthquake waves can cause buildings to collapse, streets to crack, and utility lines to rupture. Strong ground shaking can also cause damage due to falling objects such as bookcases or water heaters, chemical spills, and secondary effects such as fire or explosion. Impacts from earthquake include property damage, critical facility damage, injury, and loss of life.

On any given location, the degree of shaking tends depends on the magnitude of the earthquake, distance to the fault, property of the underlying soils, building design and construction, and building materials. Shaking tends to be strongest on filled soils and in areas where soil depth and moisture content are high.

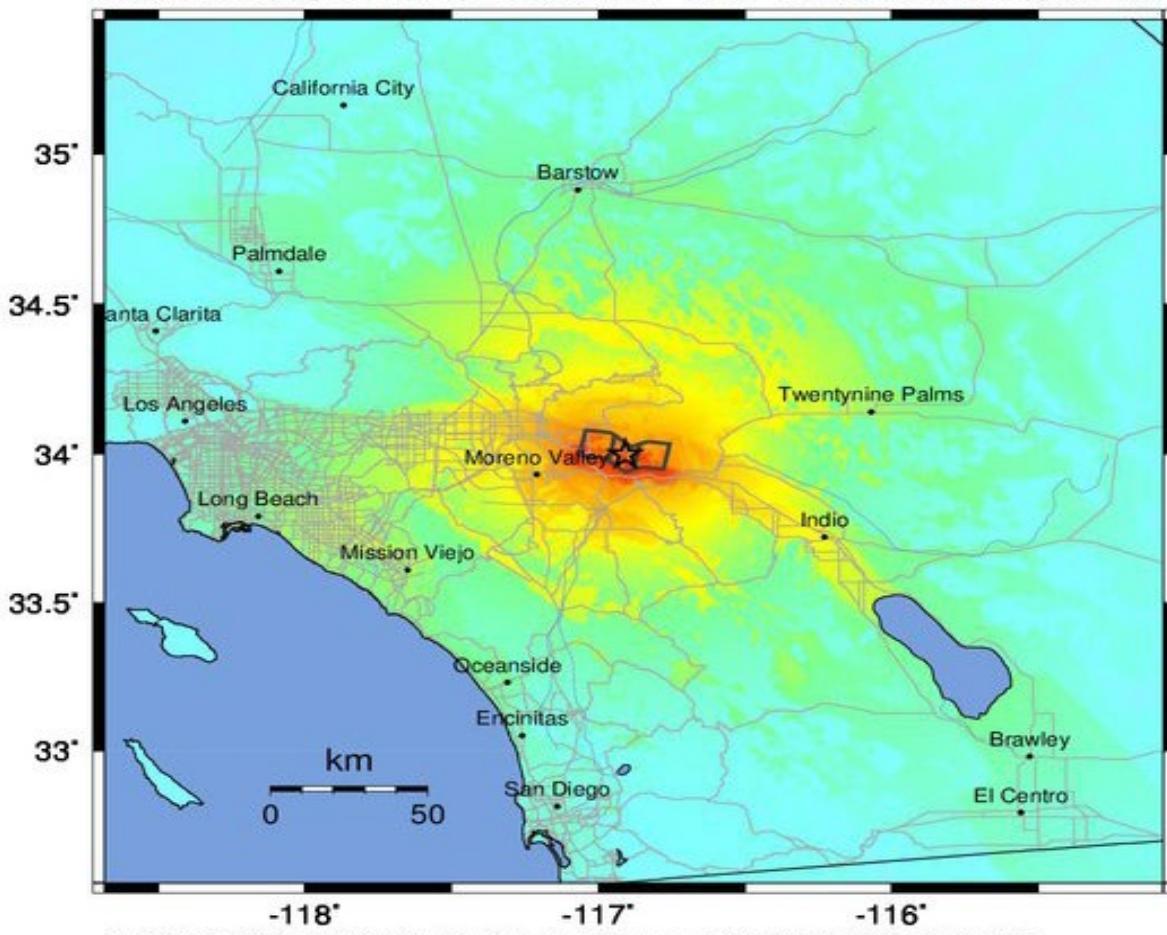
The City of Beaumont is located between two active earthquake faults. The San Andres and San Gorgonio Fault is located approximately 2 miles north of the City, and the San Jacinto Fault is located approximately 3 miles south of Beaumont the City has experienced several minor earthquakes and ground movement incidents from various quakes, including the Landers quake (7.2) in January 2001; the Chino Hills quake (5.4) in July 2008; the Whittier Narrows quake (5.9) in October 1987; and the Northridge quake in February 2001.

Figure 4.4.1. Magnitude 2.5 and Greater Earthquakes since 2018



Methodology: USGS earthquake shape map for a 6.8 magnitude earthquake on the San Gorgonio Fault, figure 4.5.1, was used to establish potential damage estimates. This map classified damage as “Very Heavy”, this was then assigned a value of .75 and multiplied by the total assessed value of all City site. Table 4.4.3 shows the total loss for a 6.8 or greater earthquake within the city.

Figure 4.4.2. USGS Shake Map
-- Earthquake Planning Scenario --
ShakeMap for San Gorgonio Pass - Median ground motions Scenario
Scenario Date: May 16, 2017 08:31:58 AM MDT M 6.9 N34.00 W116.91 Depth: 11.8km



PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Mod./Heavy	Heavy	Very Heavy
PEAK ACC. (%g)	<0.05	0.3	2.8	6.2	12	22	40	75	>139
PEAK VEL. (cm/s)	<0.02	0.1	1.4	4.7	9.6	20	41	86	>178
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+

Scale based upon Warden et al. (2012)

Critical Infrastructure at Risk: A magnitude 6.9 or greater earthquake would impact the entire Planning Area including all the city's critical facilities Figure 4.4.3 shows the critical facilities and estimated losses.

Table 4.4.3. Critical Infrastructure Potential Value Loss Estimate

Site Name	Property Replacement Cost (\$)	Hazard Specific Info
City Hall/EOC	\$10,000,000	Wood Structure
Fire Station #66	\$10,000,00	Wood frame/Stucco
Police Station/Dispatch	\$5,000,000	Wood frame/Stucco
Police Sub Station	\$1,000,000	Wood frame/Stucco
Community Resource Center	\$15,000,000	Wood frame/Stucco

Overall Community Impact: A Magnitude 6.9 or greater earthquake would be catastrophic to the entire community. There would be large spread damage to housing and community lifelines. The potential road damage would make it difficult for transportation out of the affected areas or first responders to access. The aging population and those under the age of five would be the greatest impacted.

Description of land uses and development trends: Future development of new homes and facilities should be built to DSA code and even though built to code, these structures could still be at risk from earthquake shaking.

4.4.2 Wildfire Vulnerability Assessment

Likelihood of Future Occurrence—Highly Likely

Vulnerability—High

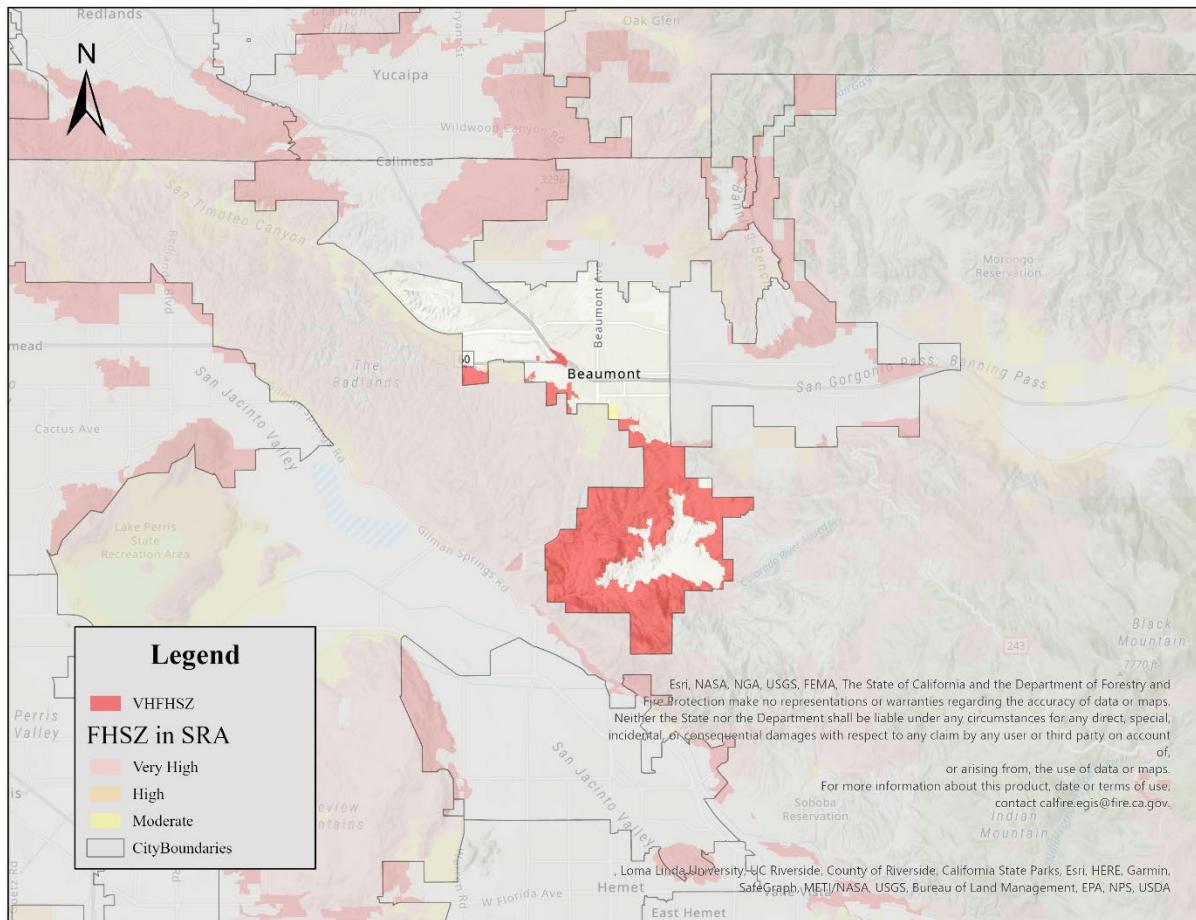
Hazard Summary: Some areas of the city are at a greater risk to wildfire than others as described further in this section. The city's greatest risk is from a wildland-urban interface (WUI) fire and along the north or south border.

While not generally prone to wildland fires, the city of Beaumont can be affected by nearby wildland fires due to air quality issues that can last for days. The threat of catastrophic wildfires under Santa Ana wind conditions presents risks and impacts to public health students, staff, and property at risk from wildfire. The hot and dry periods of late summer and fall combined with seasonal wind patterns, flammable vegetation, and dense development patterns access all contribute to creating a substantial regional fire threat.

Although the physical damages and casualties arising from wildfires may be severe, it is important to recognize that they also cause significant economic impacts by resulting in a loss of function of buildings and infrastructure. Economic impacts due to loss of building use for sheltering operations, utility service disruptions causing closures, and traffic delays/detours from road and bridge closures could all be economic impacts.

Methodology: Using GIS layer was over city depicts all critical facilities that can potentially be affected.

Figure 4.4.4. Wildfire Risk Map



Critical Infrastructure at Risk: Those critical facilities that can be affected directly or indirectly by wildfire are shown in Table 4.4.5.

Table 4.4.5. Wildfire Critical Infrastructure Potential Value Loss Estimate

Site Name	Property Replacement Cost (\$)	Hazard Specific Info
City Hall/EOC	\$10,000,000	Wood Structure
Fire Station #66	\$10,000,00	Wood frame/Stucco
Police Station/Dispatch	\$5,000,000	Wood frame/Stucco
Police Sub Station	\$1,000,000	Wood frame/Stucco
Community Resource Center	\$15,000,000	Wood frame/Stucco

Source: Beaumont Statement of Values Report

Overall Community Impact: A wildfire will have significant impact on the community due to air quality and potential evacuations. The most impacted will be those with breathing issues and limited mobility.

Description of land uses and development trends: New development in the city will be built to code, which includes building with fire resistant materials based on fire risk.

4.4.3 Flood Vulnerability Assessment

Likelihood of Future Occurrence—Likely

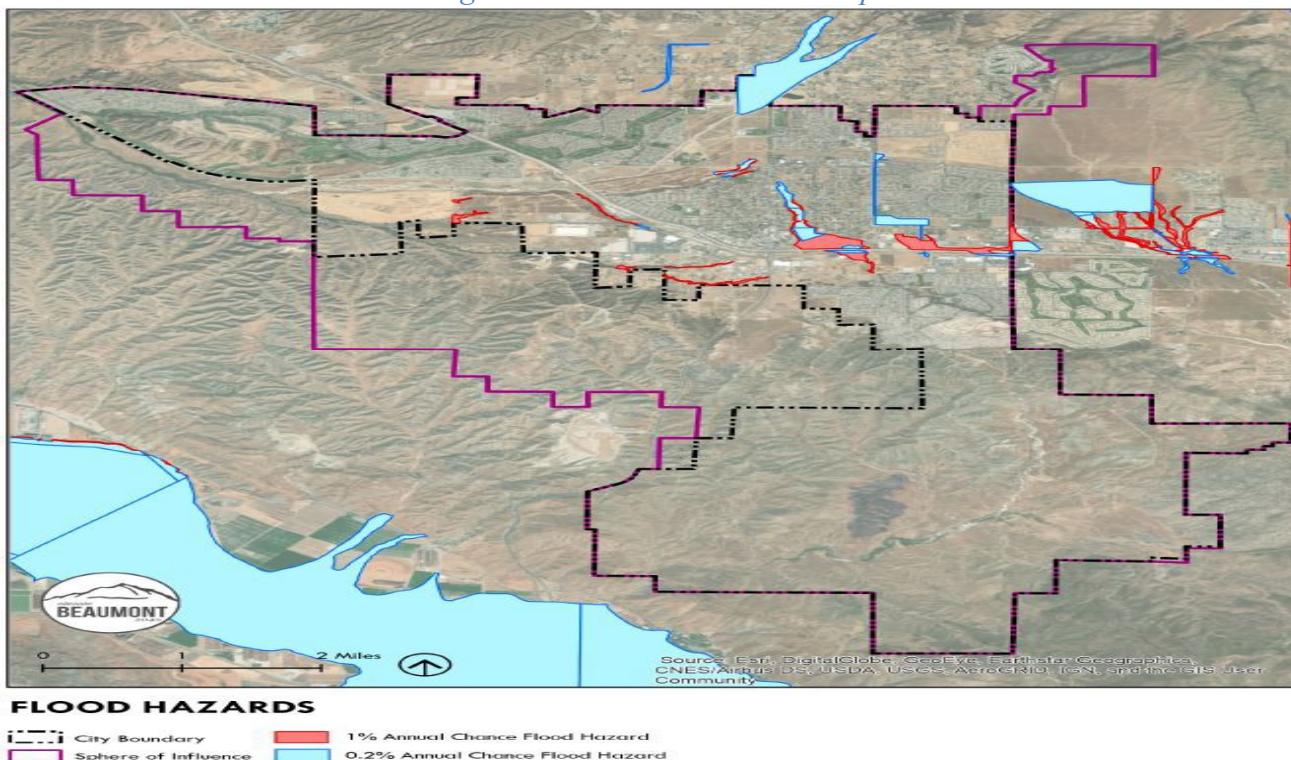
Vulnerability—Medium

Hazard Summary: Floods have been a part of the city's historical past and will continue to be so in the future. During winter storms, prolonged precipitation can result in flooding causing damage to property and infrastructure. Predominantly, the effects of flooding are generally confined to areas near the drainageways and low-lying areas. As waterways grow, in size from local drainages, so grows the threat of flood and the dimensions of the threat. Structures can also be damaged from trees falling because of water-saturated soils. Electrical power outages can occur and cause significant problems.

Methodology: Using GIS the flood zones layer was overlayed to city limits, which encompasses all identified facilities that could potentially be affected.

Heavy rain can lead to many problems for the city. The City's Flood response procedures have pre-identified areas of concern. There are no dams located in the city. However, there is a water pond located in the northeast part of the city. This storage facility is the property of a local contractor, and emergency response procedures have been worked out with them. The city is not located near Flood Plains, Dam's, lakes, Controlled Flood Channels, uncontrolled Flood Channels, or any reservoirs.

Figure 4.4.6 Flood Zone Risk Map



Critical Infrastructure at Risk: Using GIS, the flood zones were overlayed over the planning area to identify those facilities that could potentially be affected. Figure 4.4.6 depicts flood prone area within the city of Beaumont.

Table 4.4.7 Flood Critical Infrastructure Potential Value Loss Estimate

Site Name	Property Replacement Cost (\$)	Hazard Specific Info
City Hall/EOC	\$10,000,000	Wood Structure
Fire Station #66	\$10,000,00	Wood frame/Stucco
Police Station/Dispatch	\$5,000,000	Wood frame/Stucco
Police Sub Station	\$1,000,000	Wood frame/Stucco
Community Resource Center	\$15,000,000	Wood frame/Stucco

Source: Beaumont Statement of Values Report

Overall Community Impact: Flooding could have an impact on the transportation capability of the community. Those most impacted will be those that rely on public transportation. Flooded roads and closures could impact student and staff capability to make it to facilities.

Description of land uses and development trends: Future development in the city may be built in the floodplain, in conformance to the standards of the floodplain ordinance. The City of Beaumont enforces the floodplain ordinance on new development in Beaumont.

4.4.4 Heat Wave Vulnerability Assessment

Likelihood of Future Occurrence—Highly Likely

Vulnerability—Medium

Hazard Summary and Impact on Community: Extreme heat happens in the city for short periods each year. Extreme heat may overload demands for electricity to run air conditioners in homes and businesses during prolonged periods of exposure and presents health concerns to individuals outside in the temperatures. Extreme heat may also be a secondary effect of droughts or may cause drought-like conditions in a temporary setting. For example, several weeks of extreme heat increases evapotranspiration and reduces moisture content in vegetation, leading to higher wildfire vulnerability for that time, even if the rest of the season is relatively moist. Extreme heat, when combined with wind, can lead to Public Safety Power Shutdown (PSPS) events in the larger County area could extend into the city.

The city of Beaumont has pre-identified two facilities as cooling centers, (1) Community Resource Center (CRC), 734 Oak Valley Parkway, Beaumont, and (2) the Fellowship of the Pass Baptist Church, 650 Oak Valley Parkway, Beaumont CA. In addition, the Emergency Services Office has prepared a Heat Brochure available for all residents and employees. This brochure will be located on the City of Beaumont web page.

Methodology: Heat waves will have a limited impact of the physical structures themselves and have limited loss risk associated with them. The most significant risk is to the residents, employees, and visitors, and the HMPC had no way to define a methodology to calculate loss risk.

Critical Infrastructure at Risk: All of the critical infrastructure in the city is at risk from extreme heat due to potential power outages caused by a heat wave.

Overall Impact on Community: Those residents, employees, and visitors within the city who are part of the AFN community would be the most vulnerable in a heat wave.

Description of land uses and development trends: It is encouraged that future facilities have emergency plans or backup power to address power failure during times of extreme heat and in the event of a PSPS or other interruption in service.

SECTION 5.0 – COMMUNITY RATING SYSTEM

The City of Beaumont participates in the National Flood Insurance Program (NFIP). The Federal Emergency Management Agency (FEMA) conducted visits to the City in May 2008 and July 2010, providing general information utilizing the Community Rating System (CRS). The visits were conducted to identify potential problem areas related to floodplain management and suggested actions to repair those problems. The City of Beaumont's City Council passed an Ordinance on February 19, 2008, changing the City's municipal code dealing with flood hazard prevention (Ordinance 928). The purpose of this change was to address the following:

1. Reduce flood losses
2. Facilitate accurate insurance ratings
3. Promote awareness of flood insurance

5.1 Repetitive Loss Properties

The city of Beaumont has had no repetitive loss or severe repetitive loss of property.

5.2 National Flood Insurance Properties

The NFIP makes federally backed flood insurance available to homeowners, renters, and business owners in participating communities. FEMA has prepared a detailed Flood Insurance Study (FIS) for most participating communities. The study presents water surface elevations for floods of various magnitudes, including the 1% annual chance flood (or 100-year flood) and the 0.2% annual chance flood (or 500-year flood). Base flood elevations and the boundaries of the 100- and 500-year floodplains are shown on Flood Insurance Rate Maps (FIRM), which are the principal tools for identifying the extent and location of the riverine flood hazard. FIRMs are the most detailed and consistent data source available, and for many communities, they represent the minimum area of oversight under their floodplain management program.

Participants in the NFIP must, at a minimum, regulate development in floodplain areas in accordance with NFIP criteria. Before issuing a permit to build in a floodplain, participating jurisdictions must ensure that three criteria are met:

- New buildings and those undergoing substantial improvements must, at a minimum, be elevated to protect against damage by the 100-year flood.
- New floodplain development must not aggravate existing flood problems or increase damage to other properties.
- New floodplain development must exercise a reasonable and prudent effort to reduce its adverse impacts on threatened salmonid species.

The city of Beaumont is a participant in the National Flood Insurance Program.

- a. ***Describe participation in NFIP, including any changes since the previously approved plan.***
a. The city has participated in the NFIP since 1978, and the last plan has remained the same.
- b. ***Date first joined NFIP.***
a. 1978
- c. ***Identify actions related to continued compliance with NFIP.***
a. Continually monitoring all streets, flood control channels, washes, and hillsides. Upgrade flood maps as identified by the Community Action Visit and as additional incorporation areas become part of the city.
- d. ***CRS member?***
a. Yes
- e. ***CRS class?***
a. 1
- f. ***Describe any data used to regulate flood hazard areas other than FEMA maps.***
a. N/A
- g. ***Have there been issues with community participation in the program?***
a. None
- h. ***What are the general hurdles to effective implementation of the NFIP?***
a. None
- i. ***Summarize actions related to continued compliance with NFIP (c-2 and c-4)***
a. There are no repetitive losses in the City of Beaumont

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. This capabilities assessment is divided into four sections.

- Regulatory Mitigation Capabilities
- Administrative and Technical Mitigation Capabilities
- Fiscal Mitigation Capabilities / Funding Opportunities
- Mitigation Outreach, Partnership and Education

6.1 Regulatory Mitigation Capabilities

These capabilities can be expanded and improved upon by incorporating hazard information into the flood mitigation plan, and the city of Beaumont General plan.

Future opportunities for Regulatory enhancements should focus on compliance with Assembly Bill 2140, including amending the city of Beaumont's General Plan Safety Element to incorporate the 2023 Riverside County MJHMP and city of Beaumont annex by reference.

The City of Beaumont may also improve its Regulatory Mitigation Capabilities by regulating land use through the adoption and enforcement of zoning, subdivision, and land development ordinances, building codes, building permit ordinances, floodplain, and stormwater management ordinances. When effectively prepared and administered, these regulations can lead to hazard mitigation.

Table 6.1.1 lists planning and land management tools typically used by jurisdictions to implement hazard mitigation actives and those that are currently active in the city.

Table 6.1.1 Regulatory Capabilities

Regulatory Tool	Yes/No	Comments
General plan	Yes	The City's approved General Plan of 2040 complies with the California State Regulations. Specifically, the safety element addresses hazards within the jurisdiction and the 2023 LHMP aligns with it hazards identified in the safety element.
Zoning ordinance	Yes	
Subdivision ordinance	Yes	
Site plan review requirements	Yes	
Floodplain ordinance	Yes	Code of Ordinance Chapter 15.24
Other special purpose ordinance (storm water, water conservation, wildfire)	Yes	Code of Ordinance Chapter 13.24
Building code	Yes	City adopts the State of California Code
Fire department ISO rating	Yes	ISO
Erosion or sediment control program	Yes	Identified in the City's General Plan
Storm water management program	Yes	Identified in the City's General Plan
Capital improvements plan	Yes	Reviewed and updated annually
Economic development plan	Yes	
Local emergency operations plan	Yes	Reviewed annually with all department heads
Flood Insurance Study or other engineering study for streams	Yes	FEMA Flood Insurance Study NFIP information available on the local web page

6.2 Administrative and Technical Mitigation Capabilities

Future enhancements may include providing hazard training for staff of hazard mitigation grant funding in partnership with County of Riverside Emergency Management Department and Cal OES. Existing city staff are aware of the benefits of participating in training and webinars offered by Cal OES Hazard Mitigation Assistance (HMA) Team related to HMGP opportunities, HMGP Sub application development support, and other funding programs, such as Prepare California Jumpstart. Other opportunities may be related to coordinating and educating key stakeholders in the city. Other stakeholders may be interested in aligning efforts related to hazard mitigation and supporting HMGP Sub applications and other mitigation trainings.

Table 6.2.1 is a list of City Departments that can have a role in activities related to hazard mitigation. The column that indicates “Yes” or “No” defines if the city has that capability currently.

Table 6.2.1 Administrative/Technical Mitigation Capabilities

Administrative/Technical	Yes/No	Department/Position
Planner/engineer with knowledge of land development/land management practices	Yes	Planning Department
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	Building & Safety
Engineer with an understanding of natural hazards	Yes	Building & Safety
Personnel skilled in GIS	Yes	IT Department
Full time building official	Yes	Building & Safety
Floodplain manager	Yes	Public Works
Emergency manager	Yes	Police Department
Grant writer	Yes	Works directly with the city
GIS Data—Land use	Yes	IT Department
GIS Datalinks to Assessor’s data	Yes	IT Department
Warning systems/services (Alert RivCo)	Yes	Police Department / County of Riverside Emergency Management Department

6.3 Fiscal Mitigation Capabilities / Funding Opportunities

The city may update other plans, such as their CIPs to incorporate hazard information and include hazard mitigation actions and climate adaptation strategies that relate to infrastructure system resiliency associated with the water and water systems. Once projects related to hazard mitigation are approved, the recent CIP can be shared with the community on the City’s webpage. CIP investments and improvement related to seismic retrofits, and cooling center upgrades should also be emphasized in the outreach materials as they are related to hazard mitigation.

The city is in the process of hiring a grants analyst to seek grant funding opportunities to assist with key CIP projects, and mitigation projects. A grants manager can seek funding opportunities to leverage funding

from Hazard Mitigation Grant Program (HMPG), Emergency Management Performance Grant (EMPG), State Homeland Security Program (SHSP) or Building Resilient Infrastructure and Communities (BRIC) grants to alleviate costs associated with CIP and mitigation efforts.

Table 6.3.1 identifies financial tools or resources that the city could leverage to help fund mitigation activities.

Table 6.3.1 Fiscal Mitigation Capabilities Table

Financial Resources	Y/N	Comments
Community Development Block Grants	Y	Planning
Capital improvements project funding	Y	City Manager/Planning
Authority to levy taxes for specific purpose	Y	With voter approval
Fees for water, sewer, gas, or electrical services	Y	
Impact fees for new development	Y	City Manager/Planning
Incur debt through general obligation funds	Y	With voter approval
Incur debt through special tax bonds	Y	With voter approval
Incur debt through private activities	N	
Withhold spending in hazard prone areas	N/A	
Other	N/A	

An understanding of the various funding streams and opportunities will enable the city to match identified mitigation projects with the grant programs that are most likely to fund them. Additionally, some of the funding opportunities can be utilized together. Mitigation grants pre- and post-funding opportunities include the following.

FEMA HMA Grants: Cal OES administers three main types of HMA grants: (1) Hazard Mitigation Grant Program, (2) Pre-Disaster Mitigation Program, and (3) Flood Mitigation Assistance Program. Eligible applicants for the HMA include state and local governments, certain private non-profits, and federally recognized Indian tribal governments. While private citizens cannot apply directly for the grant programs, they can benefit from the programs if they are included in an application sponsored by an eligible applicant.

FEMA Public Assistance Section 406 Mitigation: The Robert T. Stafford Disaster Relief and Emergency Assistance Act provides FEMA the authority to fund the restoration of eligible facilities that have sustained damage due to a presidentially declared disaster. The regulations contain a provision for the consideration of funding additional measures that will enhance a facility's ability to resist similar damage in future events.

Community Development Block Grants: The California Department of Housing and Community Development administers the State's Community Development Block Grant (CDBG) program with funding

provided by the U.S. Department of Housing and Urban Development. The program is available to all non-entitlement communities that meet applicable threshold requirements. All projects must meet one of the national objectives of the program – projects must benefit 51 percent of low- and moderate-income people, aid in the prevention or clearance of slums and blight or meet an urgent need. Grant funds can generally be used in federally declared disaster areas for CDBG-eligible activities, including replacing or repairing infrastructure and housing damaged during or because of the declared disaster.

6.4 Mitigation Outreach, Partnerships and Education

The City of Beaumont contracts with Riverside County Fire (Cal Fire) for fire and emergency medical services and Emergency Preparedness Support. In addition, the city has a mutual aid agreement AMR Ambulance Service and San Gorgonio Hospital. Riverside County Fire has established mutual aid agreements with state and local fire agencies.

The city is an acting member of PASSCOM. PASSCOM is a cooperative of residents and businesses along with local, state, and federal responders exchanging information in a public forum regarding disaster preparedness, response, recovery, and mitigation efforts for the San Gorgonio Pass Area, which includes the city of Beaumont.

The city regularly interacts with Emergency Services representatives from the Riverside County Emergency Management Department and attends meetings held by the County of Riverside Emergency Management Department, including the Riverside County Operational Area Planning Committee (OAPC) meetings. The city of Beaumont has also developed relationships with other community emergency responders such as Cal Fire, Calimesa Fire, and the Riverside County Sheriff's Department.

The City of Beaumont has purchased backup generators for the City Hall (where the City's Emergency Operations Center (EOC) and alternate emergency shelter are located), Community Resource Center, which is our primary emergency shelter, and our police department, which is not only the police dispatch, but acts as our Alternate (EOC).

The City of Beaumont in cooperation with Riverside County Community Action Partnership Program, has identified two emergency cooling centers, the primary is located at the Community Resource Center (CRC), the City Hall and has an MOU with the Fellowship of the Pass Church as an additional cooling center. City Hall employees, Community Resource Personnel have been trained in shelter operations by the Emergency Services Department and will provide staffing for these sites. The city will provide water and basic needs for people wishing to come to these centers.

The City's Emergency Services Personnel, Police Department, and Fire Department continue to work with Riverside County and California Highway Patrol in developing a plan to divert traffic from the Highway in the event of major traffic accidents, severe wind conditions, and heavy snow issues. The city has developed a resource guide identifying resources that would become available, including local hotels/motels (with room count), and an MOU with the American Red Cross and the Fellowship of the Pass Church for temporary reception and care of evacuees.

The city is partnered with The County of Riverside Emergency Management Department and utilize the use of Alert Rivco. The city also reaches out to the public via City Website, City App, and social media (Twitter, Facebook, Instagram, and Nextdoor). With the City App we can push notification to those residents who have downloaded and allowed notifications.

The city has an active community-based program providing Emergency Preparedness Presentations, Community Emergency Response Training (CERT) program, providing fire extinguisher training to community groups and businesses, and developing short- and long-range goals with residents, staff, Beaumont Unified School District and Beaumont/Cherry Valley Water District.

The city will further cultivate relationships and provide further education and outreach to the community by focusing on creating Community Emergency Response Team (CERT) courses for the community provided by Riverside County Emergency Management.

Establishing a “hazard awareness day” in coordination with CalFire, and the Riverside County Emergency Management Department to promote hazard awareness. Provide preparedness training to public, and staff attending various city events and meetings.

As such, training, and education opportunities, along with completed or in progress mitigation action items are shared with community members during in person monthly public meetings, and through city social media, public comment is enlisted.

SECTION 7.0 - MITIGATION STRATEGIES

Element C - Mitigation Strategy

Requirement §201.6(c)(3): [The plan shall include] a mitigation strategy that provides the jurisdiction’s blueprint for reducing the potential losses identified in the risk assessment based on existing authorities, policies, programs and resources, and its ability to expand on and improve these existing tools.

The city of Beaumont coordinated through the Emergency Management Department of Riverside County and other multiple cities and agencies throughout Riverside County in the creation/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 Section 6.0 to reduce the loss of life, property damage, and economic impact to the city and its residents.

7.1 Mitigation Goals

Element C - Goals & Objectives

Requirement §201.6(c)(3)(i): [The hazard mitigation strategy shall include a] description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.

During the goal-setting meeting, the results of the hazard identification, vulnerability assessment, and capability assessment were reviewed. This analysis of the risk assessment identified areas where improvements could be made and provided the framework to formulate planning goals and objectives and to develop the mitigation strategies.

Goals were defined for the purpose of this mitigation plan as broad-based public policy statements that:

- Represent basic desires of the city.
- Are future-oriented, in that they are achievable in the future; and
- A time-independent, in that they are not scheduled events.

Goal 1: Align all building, zoning, safety, and emergency plans within the city, to reduce economic impacts and promote a resilient economy.

Goal 2: Minimize the loss of life and reduce property damage because of natural, made-made, or human-caused hazards and support the health and safety of the whole community.

Goal 3: Improve community resilience to disasters through increased outreach and awareness and better resources.

Goals are stated without regard to implementation. Implementation cost, schedule, and means are not considered. Goals are defined before considering how to accomplish them so that they are not dependent on the means of achievement. Goal statements form the basis for objectives and actions that will be used as means to achieve the goals. Objectives define strategies to attain the goals and are more specific and measurable.

7.2 Mitigation Objectives and Actions by Hazard

Element C - Identification & Analysis Mitigation Actions

Requirement §201.6(c)(3)(ii): [The mitigation strategy shall include a] section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure.

The City of Beaumont Hazard Mitigation Planning Committee identified a list of Mitigation Strategies and Goals for potentially hazardous issues identified throughout the City. The city also asked for input from local community groups (via the Emergency Management Department) identifying potential hazards in their areas. Information was also gleaned from the City's 2040 General Plan. The City's Goals and Objectives are listed below:

1. Local Planning and Regulations
2. Structure and Infrastructure Projects
3. Education and Awareness Programs

The following objectives and actions were identified to help mitigate the potential hazards and vulnerabilities identified in Section 4 and that would support the city's mitigation goals.

7.2.1 Earthquake Objectives

- EQ-1: Adopt and Enforce Building Codes
- EQ-2: Implement Structural Mitigation Techniques
- EQ-3: Increase Earthquake Risk Awareness

7.2.2 Wildfire Objectives

- WF-1: Reduce Risk through Land Use Planning
- WF-2: Create Defensible Space Around Structures and Infrastructure
- WF-3: Educate Property Owners about Wildfire Mitigation Techniques

7.2.3 Flood Objectives

- FL-1: Improve Stormwater Management Planning
- FL-2: Adopt Policies to Reduce Stormwater Runoff
- FL-3: Educate Owners about Flood Mitigation Techniques

7.2.4 Heat Wave

- HW-2: Increase Awareness of the Extreme Temperature Risk and Safety

7.2.5 Multiple Hazard

- MH-1: Integrate Mitigation into the future revisions of all the General Plan, Emergency Operations Plan, and other plans that have the potential of mitigating natural hazards.
- MH-2: Increase Hazard Education and Risk Awareness throughout the community over the next four years.

Table 7.2.6. 2023 Mitigation Actions

ID	Action	Goal	Background/Benefit	Department(s)	Cost Estimate	Potential Funding	Timeline
Earthquake							
EQ 1.1	As new versions of the California Building Code (CCR Title 24, published triennially) are released, adopt and enforce the most recent codes that contain the most recent seismic requirements for structural design of new development and redevelopment to minimize damage from earthquakes and other geologic activity. (BGP 9.7.1)	1	Falling debris is one of the leading causes of injury during ground shaking / This will reduce potential injuries	Building and Safety	\$25,000 - \$50,000	General Funds, EMPG	2023 - 2028
EQ 2.1	Inventory and assess all city buildings to ensure shatter-resistant glass or film is installed on all windows	2,1	During heavy ground shaking, windows can shatter, sending projectiles through the air and onto the surface of buildings	Building and Safety	\$75,000 - \$100,000	General Funds, EMPG, SHSP	2023 - 2028
EQ 3.1	Promote greater public awareness of existing state incentive programs for earthquake retrofit, such as Earthquake Brace and Bolt, to help property owners make their homes more earthquake safe. (BGP 9.7.6)	3	Education on potential hazards and mitigation techniques is one of the key foundations to building a more resilient community	Building and Safety, Public Works	\$15,000 - \$25,000	General Funds, EMPG	2023 - Ongoing
Wildfire							
WF 1.1	Inventory and assign risk levels for wildfire hazards to assist in regulating the allowable type, density, location, and/or design and construction of new developments, both public and private. (BGP 9.6.1)	1,2	Wildfire Mitigation	CAL Fire/ Building and Safety, Planning	\$15,000 - \$25,000	General Funds	2023 - 2028
WF 1.2	Ensure that development in Very High Fire Hazard Severity Zones minimizes the risks of wildfire through the planning and design of structures in accordance with California Building Code Chapter 7A. Ensure adequate provisions for vegetation management, emergency access, and firefighting. (BGP 9.6.3)	1,2	Approval of developments continues, and the potential risk of fire needs to be addressed for fire suppression	Building and Safety	\$10,000 - \$15,000	General Funds	2023 - Ongoing
WF 2.1	Require property owners to clear brush and high fuel vegetation and maintain firesafe zones (a minimum distance of 30 feet from the structure or to the property line, whichever is closer) to reduce the risk of fires. For structures located within a Very High Fire Hazard Severity Zone, the required brush distance is up to 200 feet from structures up to	1, 3	Unmaintained fauna and flora are among the most significant contributors to the community's start and spread of wildfires. Continuing enforcement will help reduce potential ignition points and the spread of fires	Community Enhancement/CAL Fire	\$5,000 - \$8,000	General Funds	2023 - Ongoing
Flood							
FL 1.1	Begin the development of a community-wide stormwater management master plan (LHMP 2017)	1,2	The development of a stormwater master plan will help guide stormwater related priorities and capital improvement projects	Public Works	\$75,000 - \$125,000	General Funds	2017 - 2028
FL 1.2	Require all new developments to mitigate potential flooding that may result from development, such as grading that prevents adverse drainage impacts to adjacent properties, on-site retention of runoff, and the adequate siting of structures located within flood plains. (BGP 9.8.4)	1,2	This will ensure that stormwater flow will be channeled appropriately to reduce the creation of flood	Building and Safety	\$15,000 Annually	General Funds	2023 - 2028
FL 3.1	Educating the public about securing debris, propane tanks, yard items, or stored objects that may otherwise be swept away, damaged, or pose a hazard if picked up and washed away by floodwaters	3	Educating the public will create awareness throughout the community to reduce preventable accidents from flood hazards	Public Works/Emergency Mgmt	\$15,000 Annually	General Funds	2023 - 2028
Heat Wave							
HW 2.1	Educate employees, businesses, and residents about the dangers of extreme heat and the steps they can take to protect themselves when extreme temperatures occur.	3	With low HPI and growing unhoused population, education on the signs and symptoms of heat injuries will help to reduce	City Manager/Emergency Mgmt	\$1,000 - \$3,000	General Funds, EMPG	2023 - ongoing
All-Hazard							
MH 1.1	Incorporating risk assessment and hazard mitigation principles into comprehensive planning efforts of the City General Plan	1	Hazard mitigation and assessment have been a siloed approach in the planning process. Having a unilateral hazard mitigation approach will allow for a more	Community Development	\$5,000 - \$10,000	General Funds, EMPG	2023 - 2027
MH 1.2	Develop a post-disaster recovery plan to facilitate decision-making following a hazard event	1,2	There is no Post-Disaster recovery plan. This plan will help identify what mitigation efforts should be done and where funding	Public Works/Emergency Mgmt/Building/Planning	\$25,000 - \$50,000	General Funds, EMPG	2023 - Ongoing
MH 2.2	Continue to implement a multi-hazard public awareness program through the CERT program	3	Educating the community is one of the key fundamentals of building resilience. Maintaining this program will help to	Police/Emergency Mgmt	\$45,000 - \$60,000	General Funds, EMPG	2023 - Ongoing
MH 2.2	Quarterly, provide information on all types of hazards, preparedness and mitigation measures, and responses through Community-Based Organizations (CBO) and school districts within the city.	3	There is no dedicated program to educate the community on potential hazards by season. Establishing this program would inform the community as fire or flooding seasons	Emergency Mgmt	\$15,000 - \$25,000	General Funds, EMPG	2023 - Ongoing

7.3 Hazard Mitigation Action Prioritization

Element C - Mitigation Action Plan

Requirement §201.6(c)(3)(iii): [The mitigation strategy section shall include] an action plan describing how the actions identified in section (c)(3)(ii) will be prioritized, implemented, and administered by the local jurisdiction. Prioritization shall include a special emphasis on the extent to which benefits are maximized according to a cost benefit review of the proposed projects and their associated costs.

The city identified and prioritized the following mitigation actions based on the Social, Technical, Administrative, Political, Legal, Economic, and Environmental criteria.

7.4 Future Mitigation Strategies

The HMPC will review and prioritize mitigation measures while focusing on the City's goals. During the next five years, the Committee will review risks and hazards that are identified by staff, community-based organizations, collaborative partners or presented through the Hazard Communication process and will be included in future Local Hazard Mitigation Plans if funding is available and there is a risk for potential damage.

SECTION 8.0 - PLAN IMPLEMENTATION AND MAINTENANCE PROCESS

Element A - Planning Process

§201.6(c)(4)(i): [The plan maintenance process shall include a] section describing the method and schedule of monitoring, evaluating, and updating the mitigation plan within a five-year cycle.

§201.6(c)(4)(iii): [The plan maintenance process shall include a] discussion on how the community will continue public participation in the plan maintenance process.

Implementation and maintenance of this 2023 LHMP Update is critical to the overall success of hazard mitigation planning. This is the fourth step in the planning process. This chapter provides an overview of the overall strategy for plan implementation and maintenance and outlines the method and schedule for monitoring, updating, and evaluating the Plan. The chapter also discusses incorporating the Plan into existing planning mechanisms and how to address continued public involvement.

The City of Beaumont Office of Emergency Services (OES) will review the Hazard Mitigation Plan semi-annually. The first review will be conducted by OES. OES will send out a notification that the review is in the process and ask Department Heads for any suggested updates. The second review will include all City Departments to ensure that all information is current.

Notification that the plan is under review and asking for any inputs. This notification will be sent out to all Department Heads, City Service Groups and Special City's (i.e., Water City). The Office of Emergency Services is responsible for establishing review dates and notification of plan review. The following

information will be provided to departments and interested participants for the purpose of gathering recommended changes:

The City's Office of Emergency Services will schedule reviews in January and July of each year over the next five years. If the HMPC team identifies changes that have occurred during the evaluation, OES will publish a change notice to all plan holders and the Riverside County Emergency Management Department, (Operational Area).

8.1 Plan Implementation

While this plan contains many worthwhile actions, the city will need to decide which action(s) to undertake first. Two factors will help with making that decision: the priority assigned the actions in the planning process and funding availability. Low or no-cost actions most easily demonstrate progress toward successful plan implementation.

An important implementation mechanism that is highly effective and low-cost is incorporation of the hazard mitigation plan recommendations and their underlying principles into other plans and mechanisms, such as general plans, earthquake and stormwater plans, Emergency Operations Plans (EOPs), evacuation plans, and other hazard and emergency management planning efforts for the City.

The appointed department directors and staff appointed to head each department within the city are charged with implementation of various activities in the Plan Update. During the annual reviews as described later in this section, an assessment of progress on each of the goals and activities in this LHMP Update should be determined and noted. However, the priorities and standing of activities may change based upon a change in the environment or funding opportunities.

The primary duty of the city is to see the LHMP Update successfully carried out and to report to their governing board and the public on the status of plan implementation and mitigation opportunities. Other duties include reviewing and promoting mitigation proposals, considering stakeholder concerns about hazard mitigation, passing concerns on to appropriate entities, and posting relevant information on the City website.

8.2 Plan Maintenance and Review

The City's office of Emergency Services is responsible for initiating plan reviews for the planning area. In order to monitor progress and update the mitigation strategies identified in the mitigation action plan, The City, Emergency Manager will revisit this Plan Update annually each year or following a hazard event. The HMPC will meet annually to review progress on plan implementation. This LHMP update is anticipated to be fully approved and adopted in mid-2023, the next LHMP update for the City of Beaumont Planning Area will occur in 2028.

Criteria for Annual Reviews:

- The renovations to city infrastructure including water, sewer, drainage, roads, bridges, gas lines, and buildings.
- Natural hazard occurrences that required activation of the Emergency Operations Center (EOC), whether the event resulted in a presidential disaster declaration.
- Natural hazard occurrences that were not of a magnitude to warrant activation of the EOC or a federal disaster declaration but were severe enough to cause damage in the city or closure of offices, schools, or public services.

If the City identifies changes have occurred during the evaluation, we will update the LHMP Revision Page, and notify Riverside County EMD to update our Annex. The Riverside County Emergency Management Department will coordinate the monitoring, evaluation, and update of the MJLHMP.

8.3 Incorporation into Existing Planning Mechanisms

The City of Beaumont will integrate mitigation goals, information, and actions from its 2023 LHMP into the Safety Element of the General Plan upon the next update. The LHMP is already implemented into the following planning mechanisms:

- General Plan
- Codes and Standards
- Fire Codes
- Capital Improvement Plan
- Storm Drain Master Plan
- Stormwater Ordinance required by MS4
- Efficient Landscape Irrigation Ordinance

The LHMP will be reviewed by key staff to incorporate the identified hazards within the city. Some of these identified hazards will also include review with the County of Riverside EMD personnel to help address potential funding opportunities. All the identified hazards within the plan will be considered in building, modernizing, and maintaining city facilities.

8.4 Continued Public Involvement

Continued public involvement is imperative to the overall success of this Plan's implementation. The update process provides an opportunity to solicit participation from new and existing stakeholders and to publicize success stories from the plan implementation and seek additional public comment. The LHMP maintenance and update process will include continued public and stakeholder involvement and input through attendance at City Council Meetings, Community Based Organization meetings, other meetings or events that may be scheduled, web postings, press releases to local media, and through public hearings.

8.5 Changes in Land Use and Development

The City of Beaumont is approximately 30 square miles in size. The City's Sphere of Influence is approximately 11 square miles. The city has a relatively small development footprint compared to its overall size. As of 2016, much of the area within the city and its sphere was undeveloped. Undeveloped land is comprised of 1) open space and areas reserved for open space, 2) vacant parcels, and 3) land designated for planned urban uses that have not been built yet. While there is a substantial amount of undeveloped land within the city, as well as along the freeways, much of this land has already been entitled for development. In the Sphere, approximately half of the undeveloped land is designated as Open Space. The next largest category is single family residential, followed by commercial. As of 2018, there were 14,000 existing households in the City of Beaumont. Residential development is primarily found north of SR-60 and I-10 in the flatter areas of the city. Most residential areas in the city are single-use neighborhoods and do not contain commercial uses or services nearby. The city has approximately 737 acres of private recreational uses, which are primarily comprised of private golf courses.

The developments were primarily developed in wild land urban interface areas, pursuant to the California Fire Hazard Prone Area Map (Appendix A-4), thus increasing the city's vulnerability.

Fire Hazard Severity Zone Maps chart the areas across the State that are at risk for wildfires. These risk maps, drawn by CAL FIRE in 2007, are created by a computerized model that considers terrain, vegetation and the location of past fires. In Beaumont, Moderate, High, and Very High Fire Hazard Severity Zones (FHSZ) are in and near undeveloped land, both within the existing City limits and in the Sphere of Influence. High and Very High FHSZ are in the northeast portion of the City and Sphere near the San Bernardino Mountains as well as in undeveloped areas in the Potrero Reserve along State Route-79 in the southern portion of the city. The undeveloped area within the Potrero Reserve is largely composed of shrub and grassland communities, which may provide fuel for wildfires. Beaumont has also been identified by CAL FIRE as being located within a "wildland-urban interface". The "wildland-urban interface" includes areas where homes or structures are intermixed with wildlands, which creates high wildfire risk.

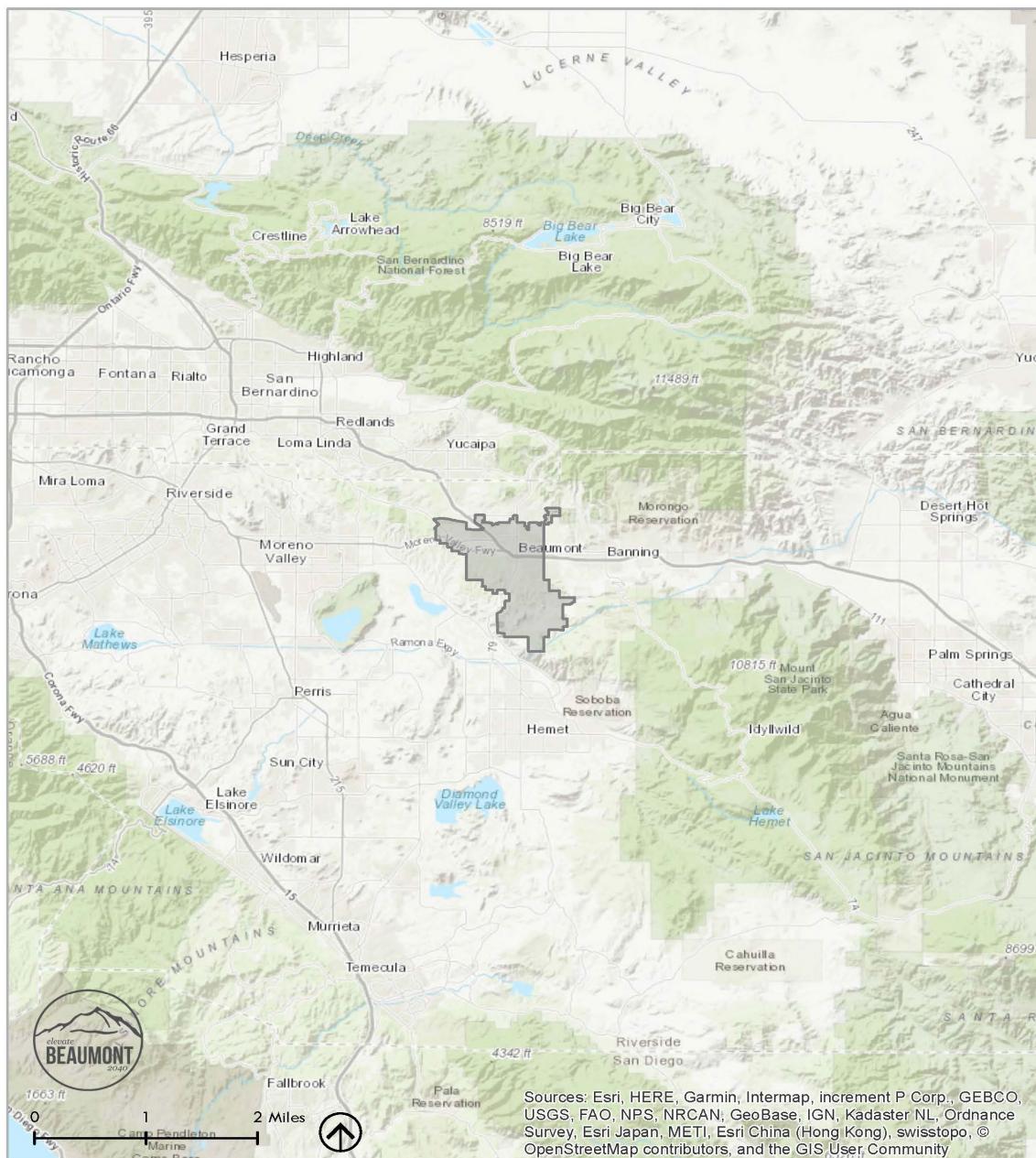
Historically, several fires have occurred in the wildland-urban interface in Riverside County and the threat intensifies under the Santa Ana winds and other extreme fire weather conditions. Parts of the area within the city and the Sphere of Influence that fall under the VHFHSZ are designated (developed or planned for development) for industrial, institutional, office and retail, and lower density residential uses west of SR-79. East of SR-79 planned land uses include mixed use residential and high density, multi-family residential.

Any future development in these areas must mitigate wildfire risk with appropriate protections. Climate change is expected to exacerbate drought conditions, potentially increasing the frequency and intensity of wildfires, and altering the distribution and character of natural vegetation. California's Fourth Climate Change Assessment reported a projected increase in wildfire frequency Statewide by 50 percent under a high emission scenario. Across the Inland Desert region, which includes San Bernardino and Riverside Counties, weather is expected to get hotter and drier over the 21st century. An increase in wildfires will place more buildings and infrastructure at risk and can also be a significant source of air quality pollution.

APPENDIX A – PUBLIC NOTICES AND MAPS

Appendix A-1	Beaumont Location Map
Appendix A-2	Beaumont Flood Map
Appendix A-3	Beaumont Earthquake Fault Map
Appendix A-4	Beaumont Fire Hazard Severity Zone
Appendix A-5	Beaumont Evacuation Routes
Appendix A-6	Parks and Recreation Facilities Map
Appendix A-7	Schools and Library Facilities Map
Appendix A-8	Beaumont Subject to the MSHCP Map
Appendix A-9	Beaumont Land Use Map
Appendix A-10	Beaumont Existing City Structure Map
Appendix A-11.1	LHMP Public Notice
Appendix A-11.2	LHMP Public Notice
Appendix A-12.1	PASSSCOM Public Notice
Appendix A12.2	PASSCOM Public Notice

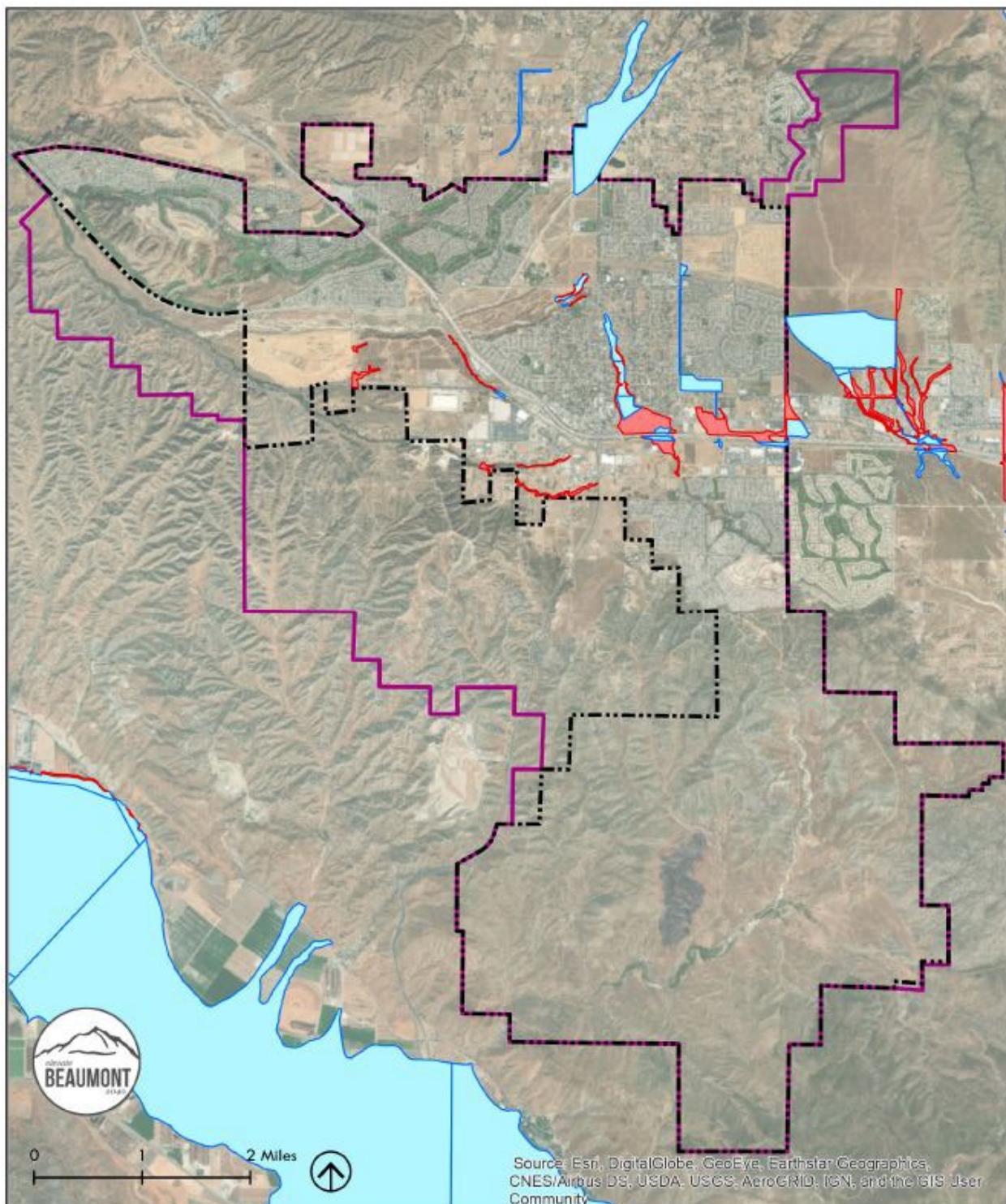
APPENDIX A-1 Beaumont Location Map



REGIONAL VICINITY

 City of Beaumont

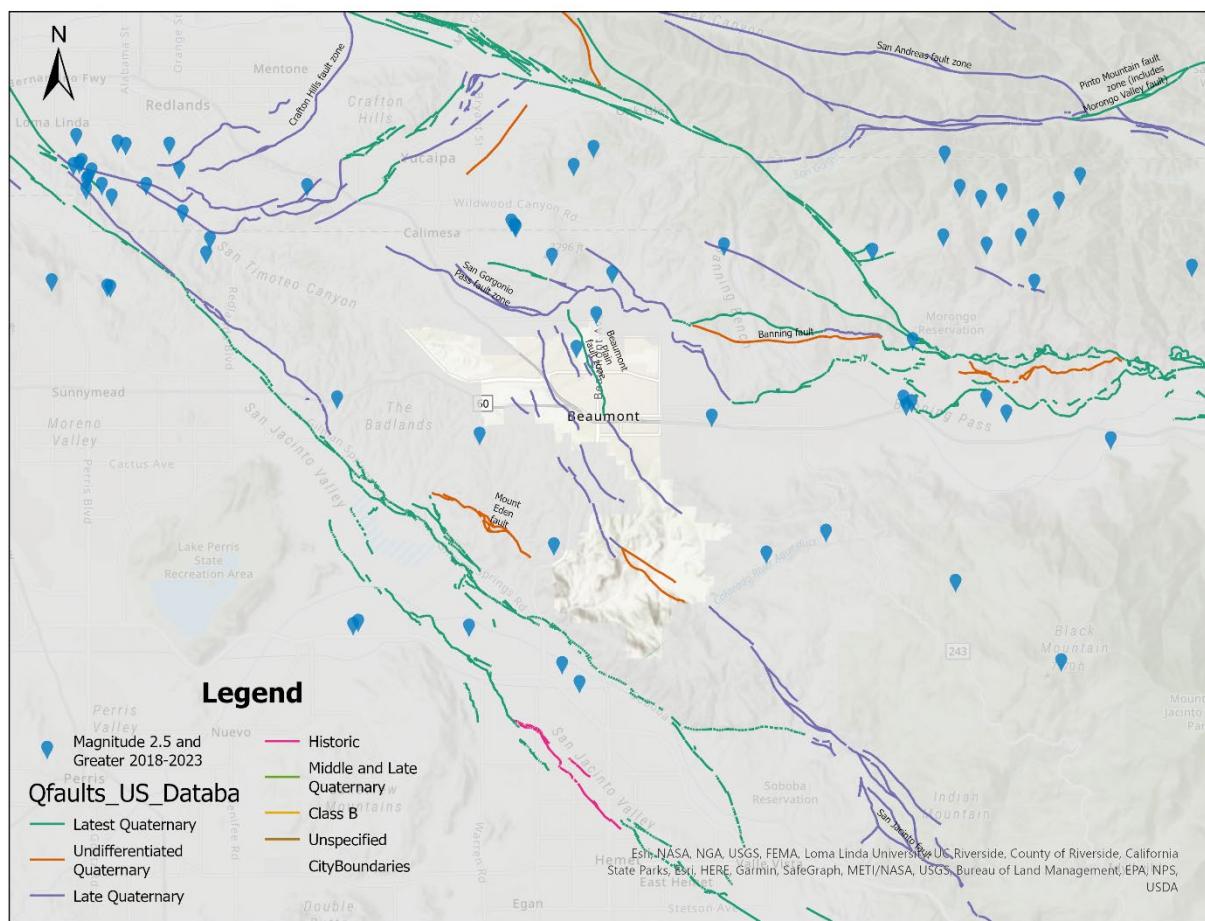
APPENDIX A-2 Beaumont Local Flood Map



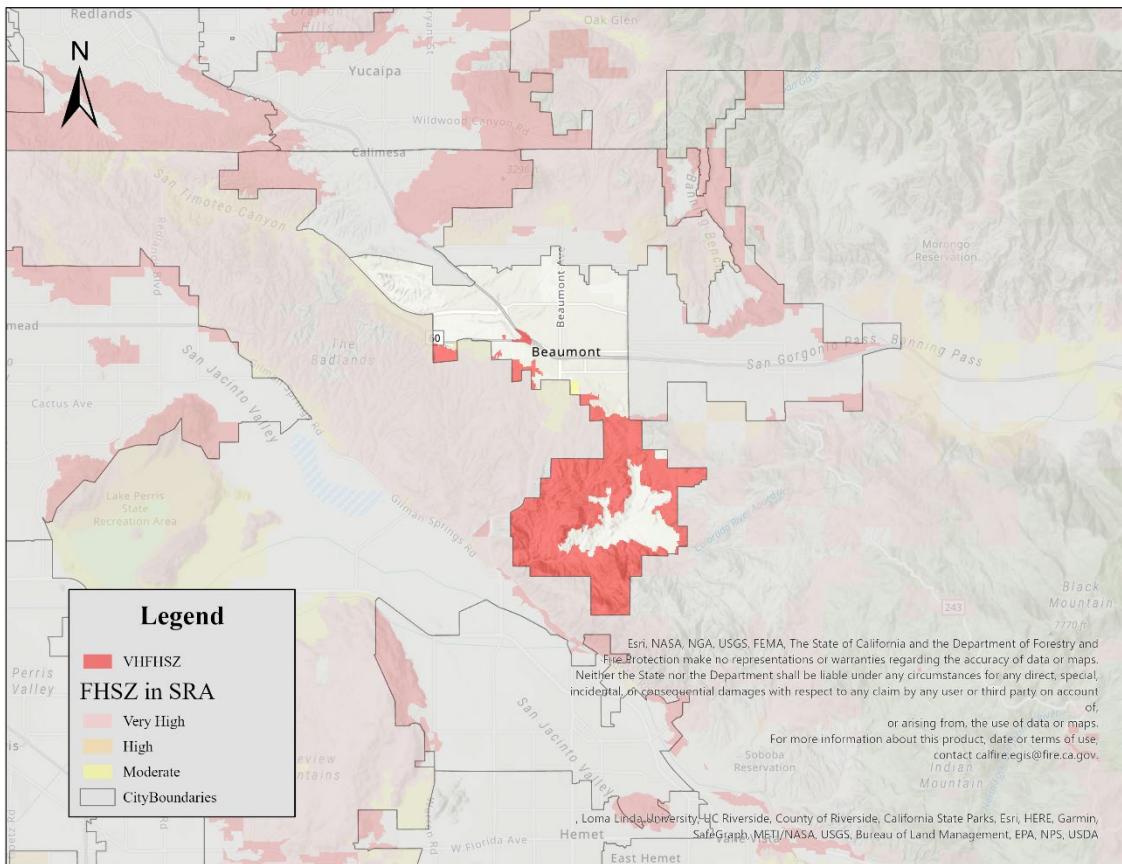
FLOOD HAZARDS

	City Boundary		1% Annual Chance Flood Hazard
	Sphere of Influence		0.2% Annual Chance Flood Hazard

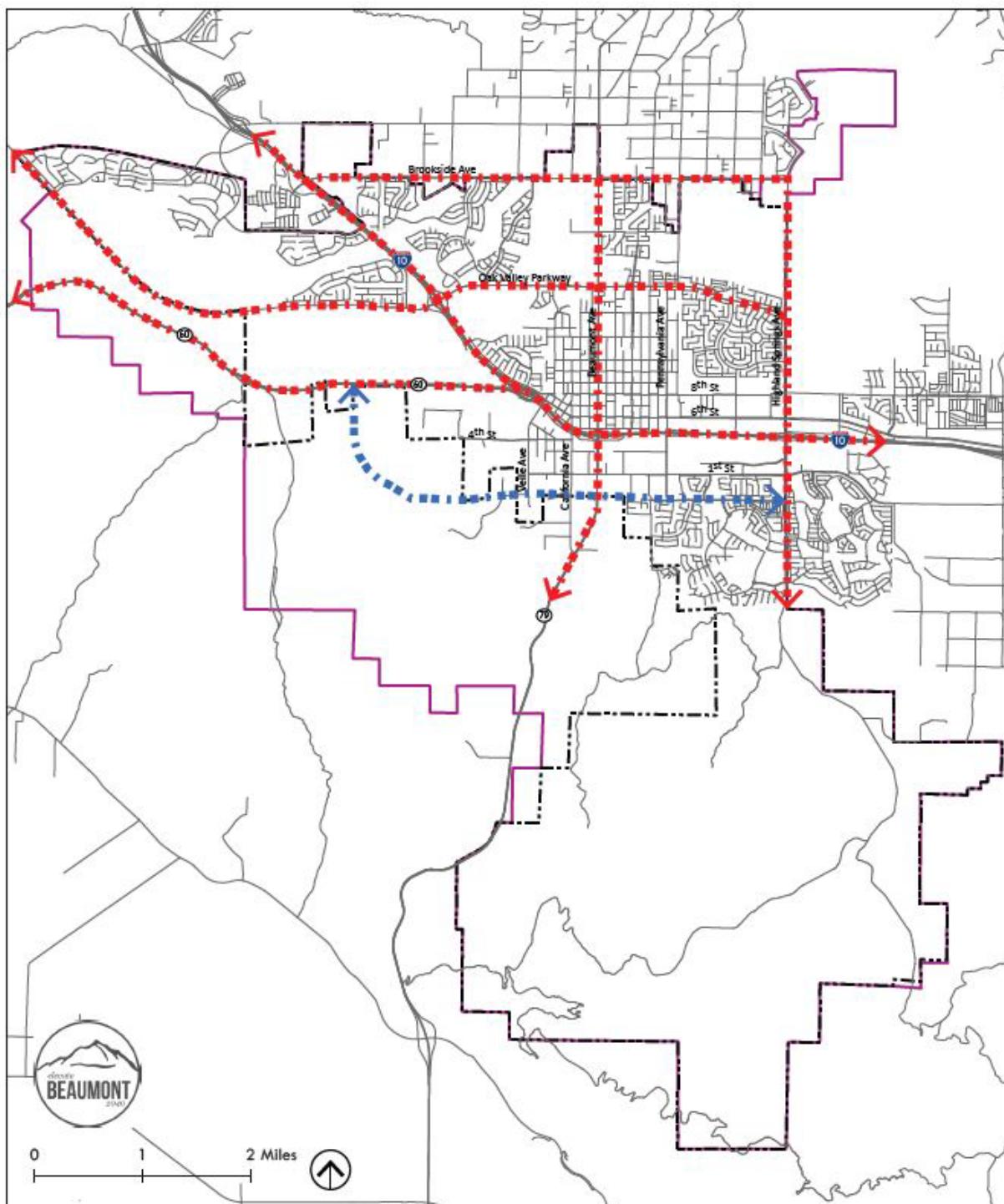
APPENDIX A-3 Beaumont Earthquake Fault Map



APPENDIX A-4 Beaumont Fire Hazard Severity Zone



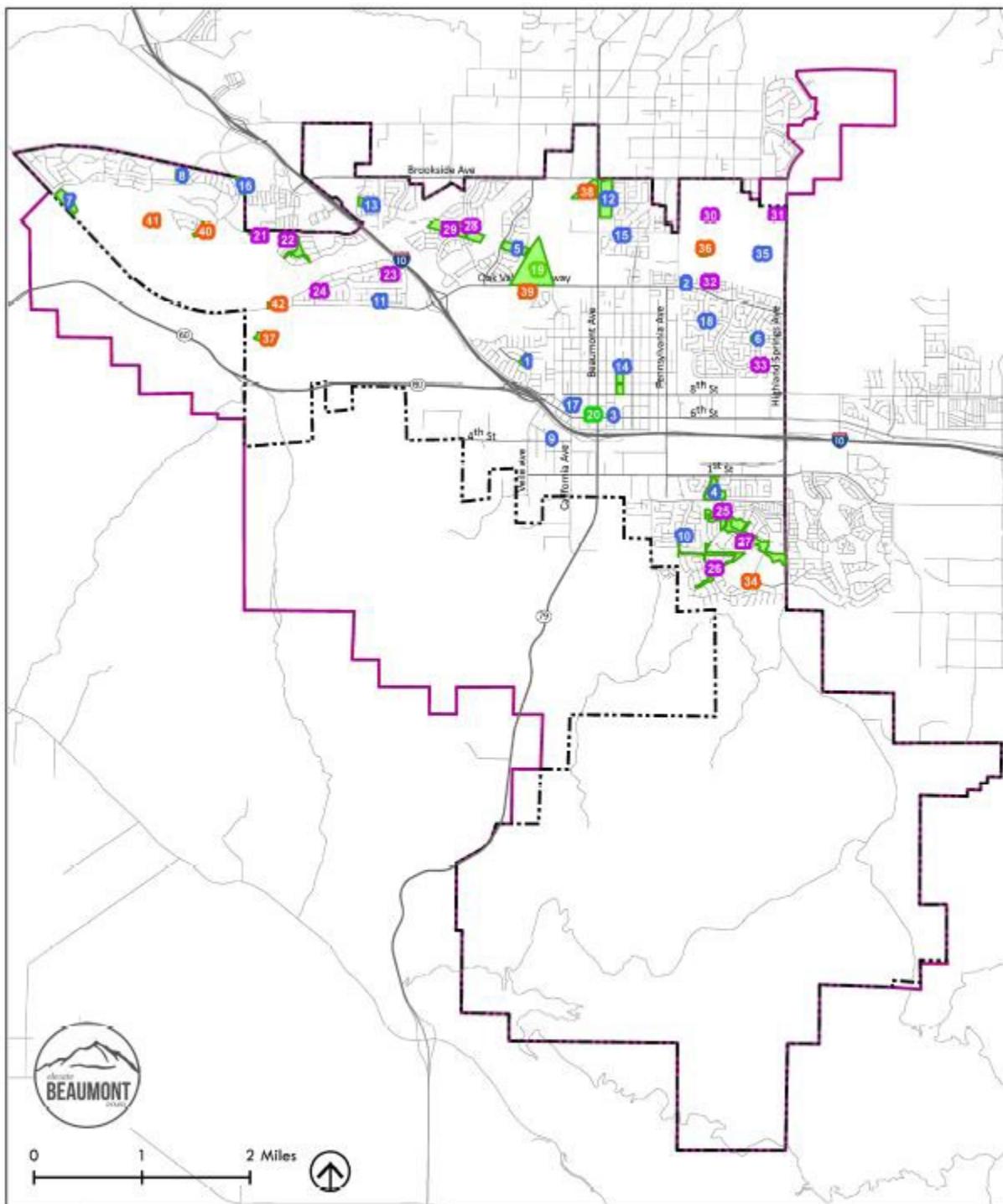
APPENDIX A-5 Beaumont Evacuation Routes



EVACUATION ROUTES

- City Boundary
- Sphere of Influence
- Evacuation Route
- Future Evacuation Route

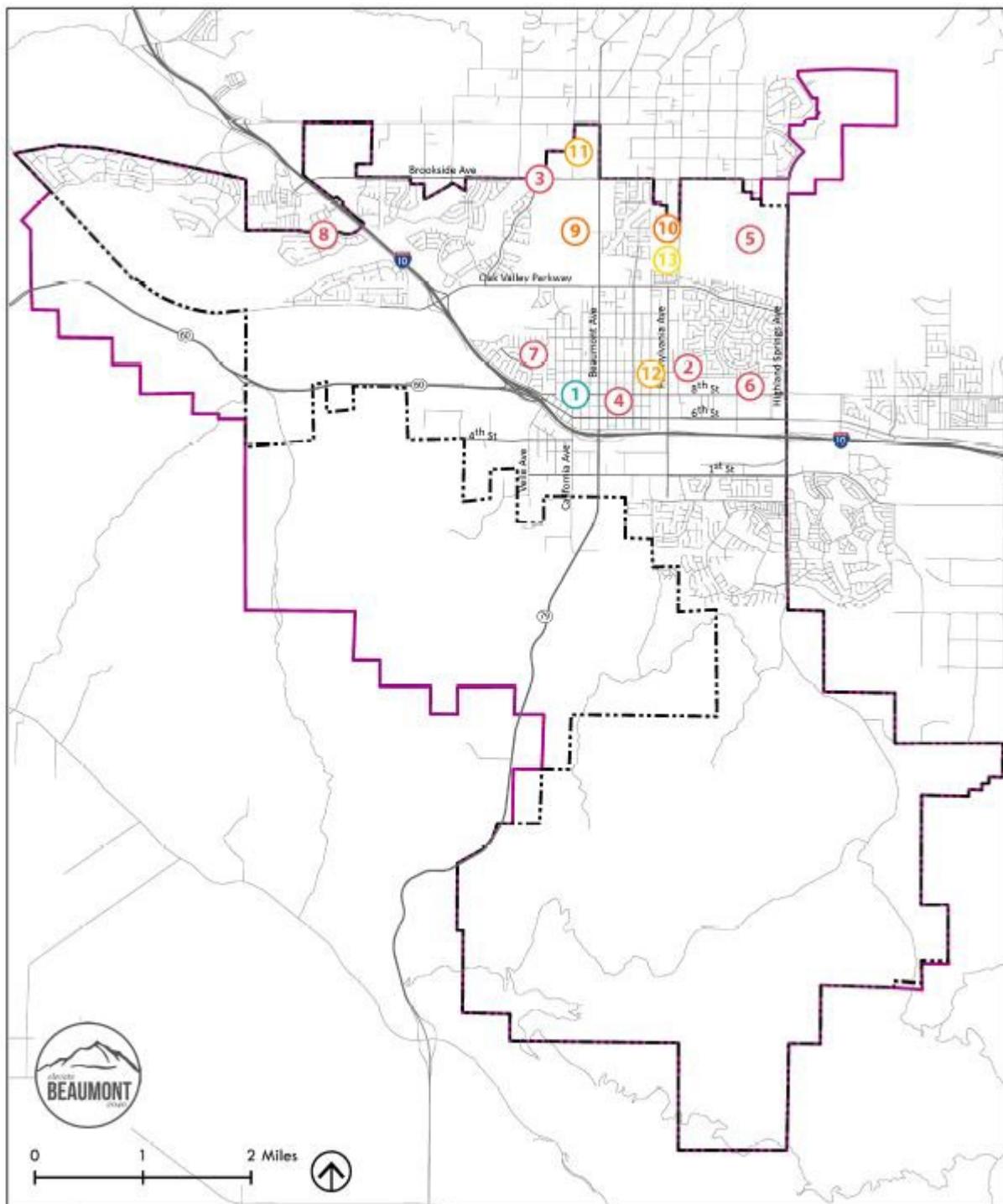
APPENDIX A-6 Parks and Recreation Facilities Map



PARKS AND RECREATION FACILITIES



APPENDIX A-7 Schools and Library Facilities Map



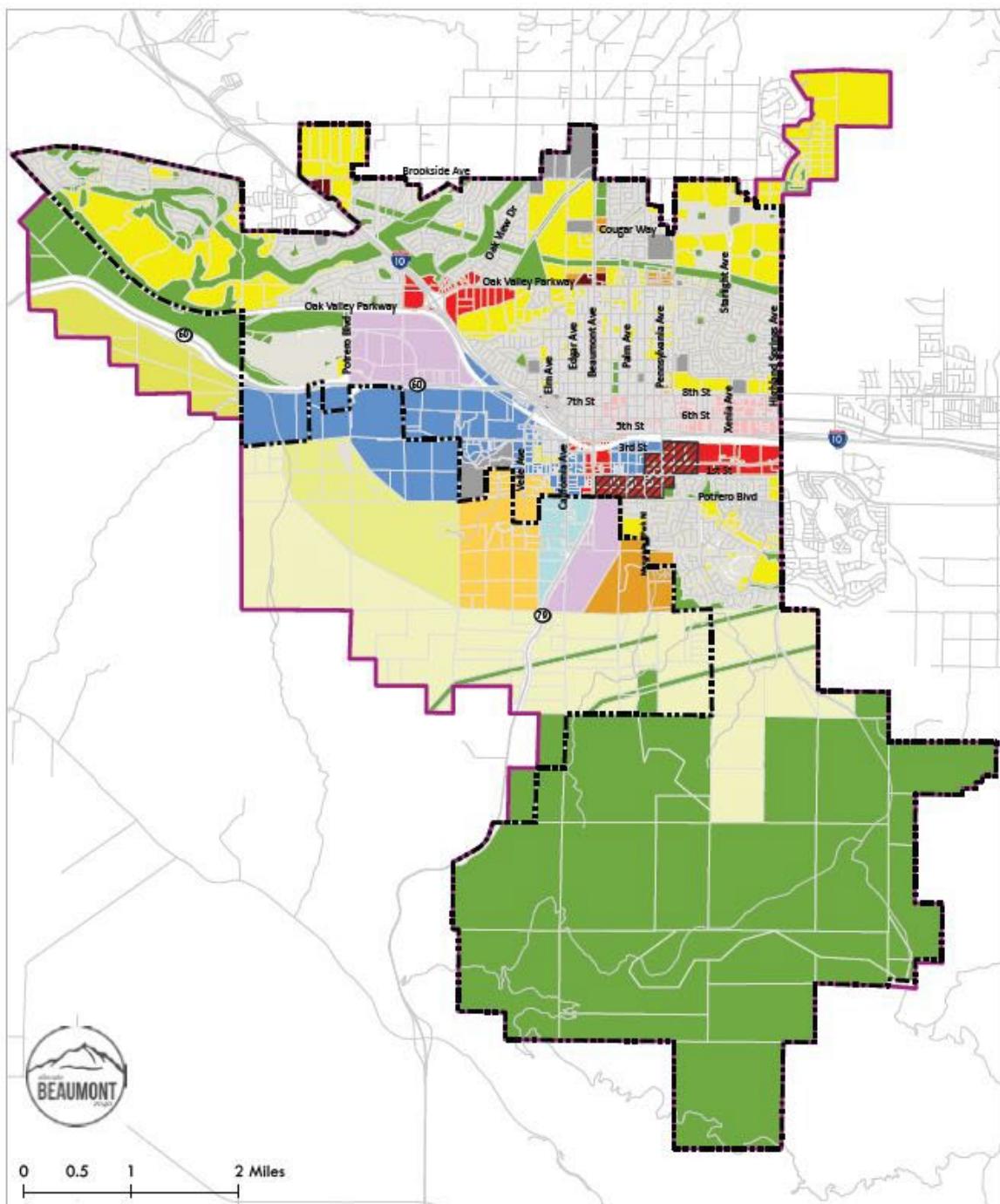
SCHOOL & LIBRARY FACILITIES

Legend: City Boundary (Black line), Library (Blue square), Middle School (Red square), Adult School (Yellow square), Sphere of Influence (Purple square), Elementary School (Green square), High School (Orange square).

APPENDIX A-8 Beaumont Subject to the MSHCP Map



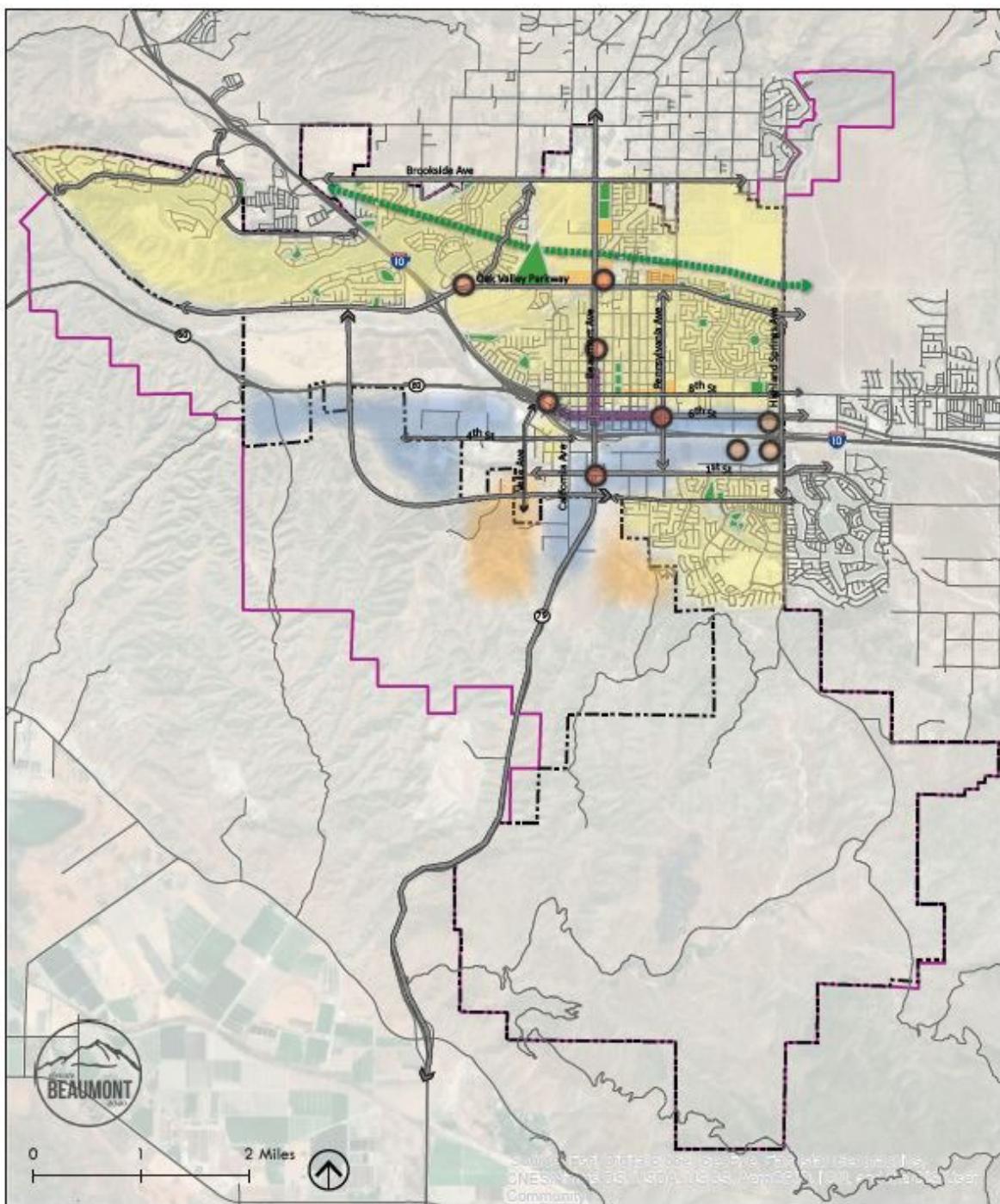
APPENDIX A-9 Beaumont Land Use Map



LAND USE DESIGNATIONS

City Boundary	High Density Residential	Urban Village
Sphere of Influence	Traditional Neighborhood	Downtown Mixed Use
TOD Overlay	Single Family Residential	General Commercial
Open Space	Rural Residential 1	Neighborhood Commercial
Employment District	Rural Residential 10	Public Facilities
Industrial	Rural Residential 40	

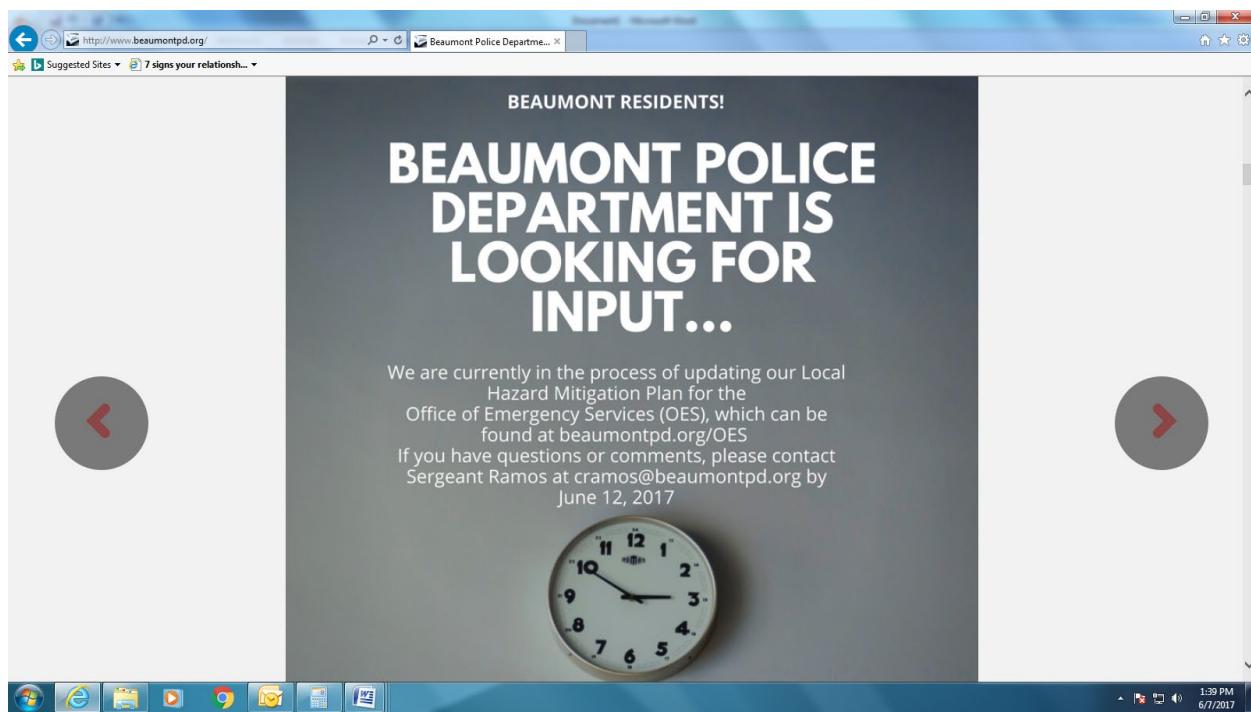
APPENDIX A-10 Beaumont Existing City Structure Map



EXISTING CITY STRUCTURE

	City Boundary		Single Family Neighborhoods		Downtown
	Sphere of Influence		Multifamily Family Neighborhoods		Neighborhood Commercial Centers
	Easements		Non-Residential Districts		Regional Commercial Centers
	Major Corridors		Open Space		

APPENDIX A-11.1 LHMP Public Notice



APPENDIX A-11.2 LHMP Public Notice

Constant Contact Survey Results

Campaign Name: LHMP Community Survey
Survey Starts: 384
Survey Submits: 98
Export Date: 12/27/2022 01:10 PM

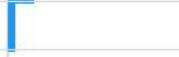
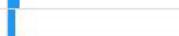
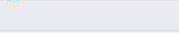
MULTIPLE CHOICE

Are you aware that the City of Beaumont has a Local Hazard Mitigation Plan?

Answer Choice	0%	100%	Number of Responses	Responses Ratio
Yes		100%	37	37%
No		100%	61	62%
Total Responses		98	100%	

MULTIPLE CHOICE

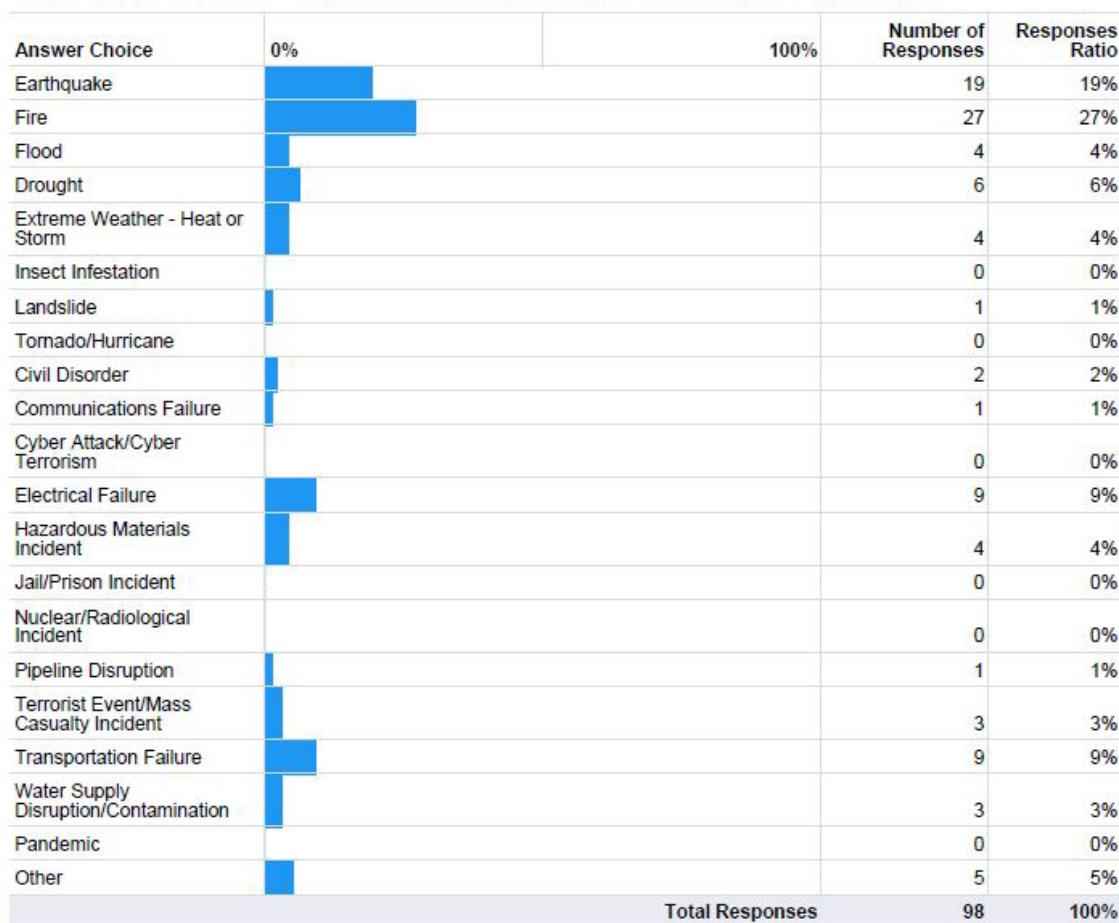
Please select the one hazard you think is the highest threat to your neighborhood:

Answer Choice	0%	100%	Number of Responses	Responses Ratio
Earthquake		100%	30	30%
Fire		100%	30	30%
Flood		100%	3	3%
Drought		100%	5	5%
Extreme Weather - Heat or Storm		100%	1	1%
Insect Infestation		100%	0	0%
Landslide		100%	1	1%
Tornado/Hurricane		100%	0	0%
Civil Disorder		100%	2	2%
Communications Failure		100%	1	1%
Cyber Attack/Cyber Terrorism		100%	0	0%
Electrical Failure		100%	4	4%
Hazardous Materials Incident		100%	1	1%
Jail/Prison Incident		100%	0	0%
Nuclear/Radiological Incident		100%	0	0%
Pipeline Disruption		100%	1	1%
Terrorist Event/Mass Casualty Incident		100%	0	0%
Transportation Failure		100%	12	12%
Water Supply Disruption/Contamination		100%	4	4%
Pandemic		100%	1	1%
Other		100%	2	2%
Total Responses		98	100%	

Page 1 of 6

MULTIPLE CHOICE

Please select the one hazard you think is the second highest threat to your neighborhood:



OPEN QUESTION

In your opinion, what are some steps the City of Beaumont could make to reduce or eliminate the risk of future hazard damages in your neighborhood?

Earthquake emergency response teams

Make streets better traffic flow open up another bridge on Pennsylvania.

Keep warehouses in areas where there is proper infrastructure. Review the existing roads and freeway bridges for potential failure—they are old and are taking a lot of traffic, including semi-trucks. Keep semi trucks and other construction vehicles from using neighborhood roads like Palmer when they aren't allowed there—patrol the area at night—they come through nightly and aren't supposed to be on Palmer (Fairway Canyon).

98 Response(s)

OPEN QUESTION

Are there any other issues regarding the reduction of risk and loss associated with hazards or disasters in the community that you think are important?

Fire & Rescue

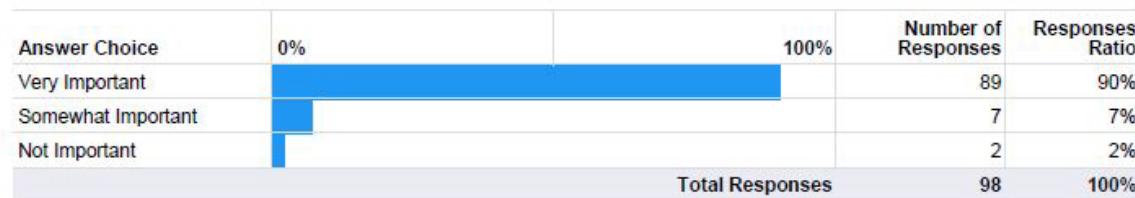
No

Get the fire station over by Olivewood up and running. Don't take the other fire station in town away once the one on the west side is up. Monitor the homeless living in ravines and encampments as they start fires.

98 Response(s)

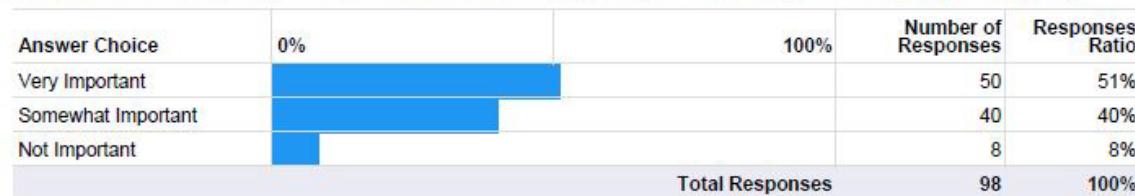
MULTIPLE CHOICE

Prevention - Administrative or regulatory actions that influence the way land is developed and buildings are constructed (Example - Planning and zoning building codes, etc).



MULTIPLE CHOICE

Property Protection - Actions that involve the modification of existing buildings or structures to protect them from a hazard or remove them from the hazard area (Example - Retrofits, relocation, acquisition, etc).



MULTIPLE CHOICE

Public Education and Awareness - Actions to inform and educate residents, elected officials, and property owners about the hazards and potential ways to mitigate them (Example - Outreach, real estate disclosure, school-age and adult education).



MULTIPLE CHOICE

Natural Resource Protection - Actions that, in addition to minimizing hazard losses, also preserve or restore the functions of natural systems (Example - Erosion control, stream restoration, etc).

**MULTIPLE CHOICE**

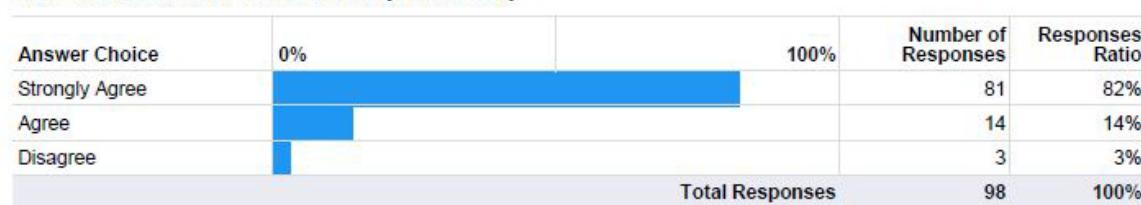
Emergency Services - Actions that protect people and property during and immediately after a disaster or hazard event (Example - Warning systems, protection of official facilities, etc).

**MULTIPLE CHOICE**

Structural Projects - Actions that involve the construction of structures to reduce the impact of a hazard (Example - Dams, floodwalls, etc).

**MULTIPLE CHOICE**

Non-disclosure of the hazards in my community



MULTIPLE CHOICE

Poor planning and response to an emergency or disaster



MULTIPLE CHOICE

Lack of follow-up in implementing and carrying out mitigation projects



MULTIPLE CHOICE

No early alert and warnings/notifications during an emergency or disaster



MULTIPLE CHOICE

Too many alert and warnings/notifications regarding an emergency or disaster



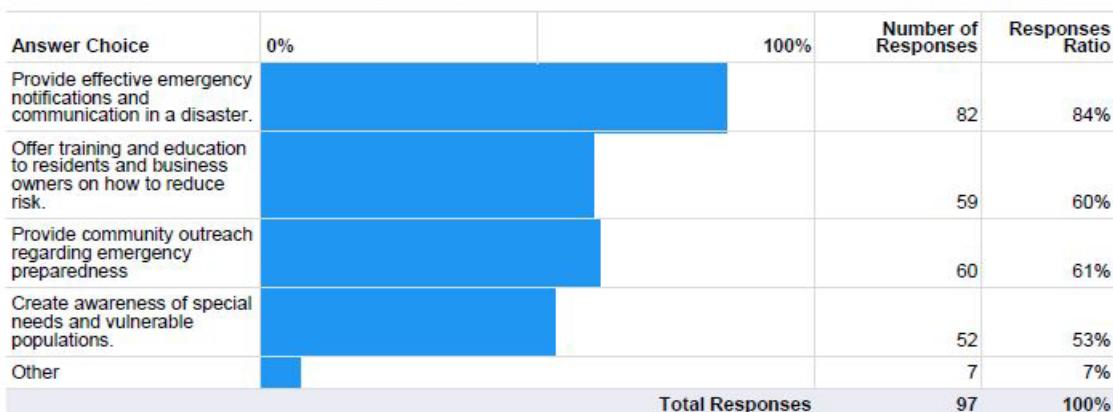
MULTIPLE CHOICE

How prepared is your household for a natural disaster (for example wildfire, flood, earthquake, extended power outage, etc.)?



CHECKBOXES

How can the City of Beaumont help you become better prepared for a disaster? Choose all that apply.



OPEN QUESTION

Please provide us your name, email and/or telephone number. The City of Beaumont will use this information only in instances where we need to respond to your questions or comments. We will not share this information with anyone.

Raquel Gaitan
909806-5593
Raquel_gaitan7575@att.net

Rodney Dahlgren
ron.dahlgren@gmail.com

Lisle Dewar
237 White Sands
Beaumont, CA 92223

79 Response(s)

APPENDIX A-11.3 LHMP Public Notice

Constant Contact Survey Results

Campaign Name: LHMP Community Survey

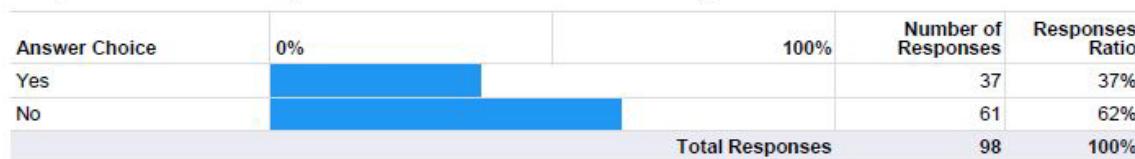
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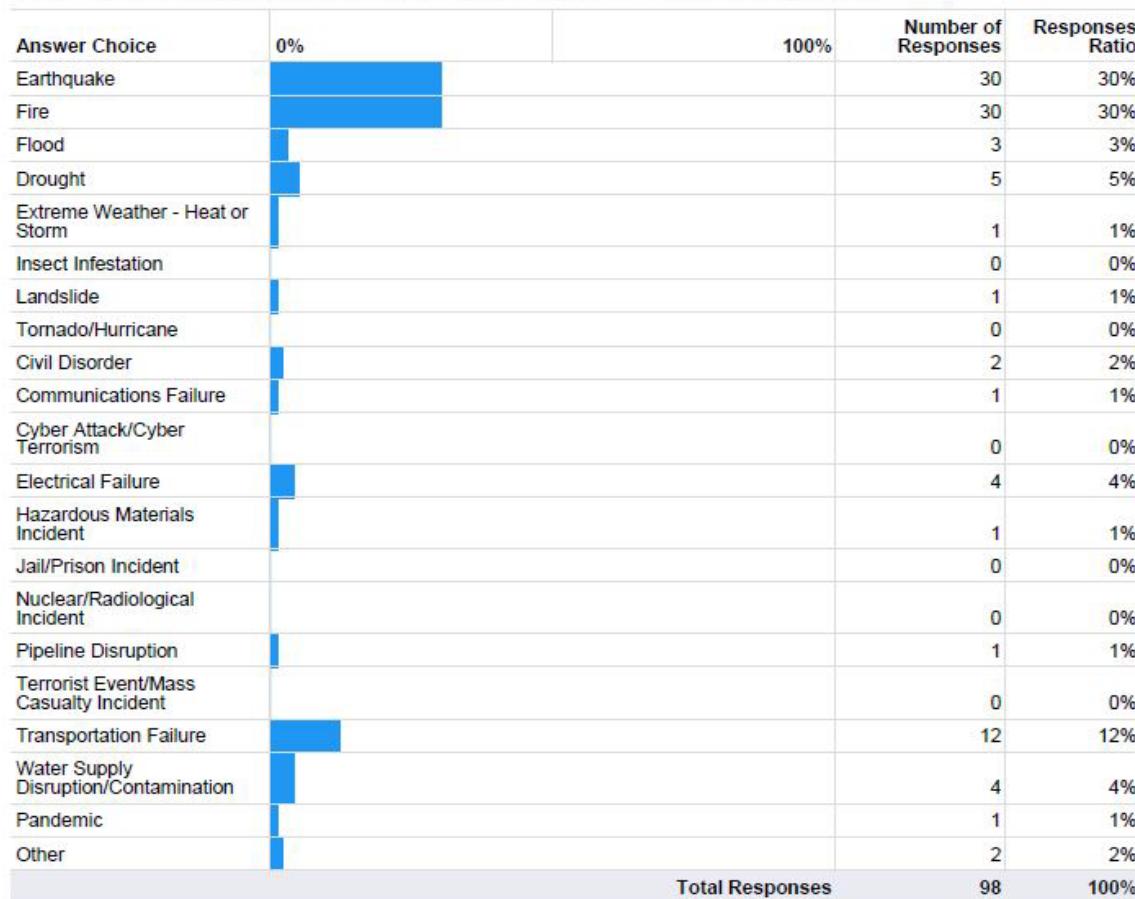
MULTIPLE CHOICE

Are you aware that the City of Beaumont has a Local Hazard Mitigation Plan?



MULTIPLE CHOICE

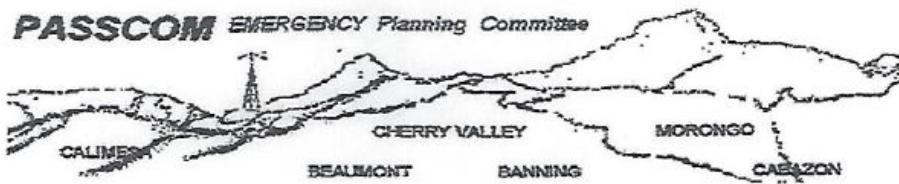
Please select the one hazard you think is the highest threat to your neighborhood:



Public Notice



APPENDIX A-12.1 PASSCOM



SAN GORGONIO PASS EMERGENCY PLANNING COMMITTEE

Lorna Linda University Health Beaumont Banning
81 S. Highland Springs Ave. Suite 100A
Beaumont, CA 92223

AGENDA:

Tuesday, November 8th, 2022 @ 8:30am

CALL TO ORDER:

Mike Barron - President
Mike Simon - Vice President
DeEsta West - Secretary
Mike Simon- Treasurer

Self-introductions

Approval of Previous Minutes

October, 11th, 2022

Treasurers Report

Mike Simon

Reports and New Business

- County Update
- Hospital Update
- Website Update
- CHP
- Riverside County Sheriff
- Local PO

Speaker:

Round Table

Announcements

Adjournment

Next meeting: December 13th, 2022 @
8:30am