



Safety

BARSTOW
Safety Element

- **Planning Commission Approved 05/10/2021 and 07/26/2021 recommending Council Approval of California Environmental Quality Act Finding**
- **Planning Commission Approved 05/10/2021 and 07/26/2021 recommending Council Approval of the General Plan Amendment (PGPA-21-0001)**
- **City Council Approved 08/02/2021 adopting the California Environmental Quality Act Finding**
- **City Council Approved 08/02/2021 adopting the General Plan Amendment (PGPA-21-0001) updating the City of Barstow General Plan to include the Environmental Justice Element**

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A cknowledgments

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SAFETY ELEMENT

Purpose

The Safety Element sets forth goals, policies and strategies geared toward ensuring the safety of City residents and visitors to the community. The following aspects are addressed in the Safety Element:

- Police services
- Fire protection
- Seismic and geologic hazards
- Emergency Evacuation Routes
- Flood control
- Multi-Hazard Mitigation

Background

Government Code Section 65302(g) requires that a Safety Element or its equivalent be included in the General Plan to address measures necessary to protect the community from risks related to fire and other hazards and threats. Public Resources Code 4125(a) requires that that all areas of California have an agency responsible for preventing and suppressing fires.

Factors that affect the provision of fire and police services include distribution and intensity of land uses, accessibility, and emergency response coordination. Consequently, the Safety Element relates directly to a number of other general plan elements, most notably Land Use, Circulation, Open Space and Conservation.

As communities grow, the provision of police and fire protection services are important to the ongoing safety of community residents and visitors. The City of Barstow oversees the Police Department as well as administering the Barstow Fire Protection District. Unincorporated areas in the vicinity of Barstow are served by the San Bernardino County Sheriff's Office.

Emergency Personnel

Law Enforcement

The Barstow Police Department has a total of 48 sworn positions and 20 unsworn positions for a total of 68 personnel. The sworn positions include 1 Chief, 1 Captain, 1 Lieutenant, 5 Sergeants, 2 Detectives, 5 Corporals, and 33 Patrol Officers; while the unsworn positions include 10 Public Safety Dispatchers, 1 Senior Administrative Assistant, 1 Police Services Supervisor, 5 Police Services Assistants, 1 Senior Administrative Assistant, 1 Senior Crime Scene/Evidence Technician, and 1 Crime Scene/Evidence Technician. The Police Department is organized into two main divisions: Operations and Administrative. The Police Department

equipment inventory includes 17 marked patrol cars, 1 spare K-9-unit, 1 spare patrol unit, 1 marked police truck, 12 unmarked vehicles, 1 crime scene van, 1 MRAP armored vehicle, 1 SWAT van, 1 Citizen on Patrol SUV, and 2 marked police on/off- road motorcycles.

Barstow Police Department handled 37,521 calls for service in 2019, of which 19.3% were for Priority 1 police services (including assaults and robberies) and 11.1% were Priority 2 calls, including petty theft and vandalism. The Department made 2469 arrests and issued 3273 citations. The average Police Department response time for Priority 1 calls was 5 minutes and 42 seconds.

Historically, police and fire departments have utilized standards such as the number of officers per 1,000 residents as a means of measuring the adequacy of police and fire services. Increasingly, however, many experts have called into question the relevance and applicability of such arbitrary standards. Joseph Brann, the first Director of the Community Oriented Police Service (COPS) Office and retired chief of police in Haywood, California wrote in “Officer’s per Thousand and other Urban Myths” appearing in ICMA’s PM Magazine, “A key resource is discretionary patrol time, or the time available for officers to make self-initiated stops, advise a victim in how to prevent the next crime, or call property owners, neighbors, or local agencies to report problems or request assistance. From this perspective, the manner in which assigned personnel are trained, deployed, and utilized is of greater importance than the establishment and maintenance of staffing levels based on number of residents served. Nonetheless, it is logical to assume that as communities grow the need for increased numbers of police and fire safety personnel is likely to expand as well, even assuming that such individuals are effectively and efficiently managed.

In addition to the direct provision of public safety services both the Barstow Police Department and the Barstow Fire Protection District engage in activities intended to promote greater public awareness of fire and safety hazards and prevention techniques and to prevent the occurrence of crime.

Barstow Police Department - Prevention and Awareness Events

- a. National Night Out
- b. Public Safety Day
- c. Mothers Against Drunk Driving (MADD) 5k Walk/Run
- d. Neighborhood Watch Program
- e. Police Explorer Program
- f. Police Activities League (After School Program)
- g. Bicycle Safety Fair
- h. Citizen on Patrol Program (See Safety Element Goal 3)
- i. School Resource Officer Safety Awareness classes to students at BUSD
- j. BUSD Safety Fair
- k. Barstow Community College Summer Youth Program

I. Community Awareness Meetings

The Barstow Fire District utilizes the shift members to conduct a variety of public education and prevention activities. The firefighters routinely conduct school programs, station tours, and first aid/ CPR classes. In addition, the Fire District holds an annual open house during Fire Prevention Week. The Fire Chief and engine companies conduct routine fire prevention inspections on local businesses to educate the business owners and to ensure code compliance.

Fire Department

The Barstow Fire Protection District is a combination department consisting of full-time and paid-call firefighters. Currently the Fire District has 30 full time personnel, 1 Fire Chief, 3 Battalion Chiefs, 6 Captains, 6 Engineers, 12 Firefighter-Paramedics, 1 Arson Investigator, and one Office Assistant (non-sworn). The paid-call staff fluctuates but currently includes 18 members that respond as needed. The District currently operates with three different shifts; the Fire Chief works a 9/80 schedule and responds off-duty as needed. The district operates 2 full-time paramedic engine companies and 1 paramedic squad and 1 battalion chief on duty 24 hours a day. The paid-call members operate an engine, truck-company, and a water tender. In additions, the District owns 3 staff vehicles.



The response times for the Barstow Fire Protection District vary depending on the area served. The goal is to be in-route to an incident within one 1 minute 30 seconds, with an overall time of a few seconds near the stations to over 9 minutes to the most remote areas. The district responds to over 7,000 incidents annually.

Fire Hazard Severity Map

Barstow is mostly in the low to very low fire risk hazard area as shown in figure 1 from the Department of Forestry and Fire Protection. The extremely low rainfall and scorching summer temperatures mean that plants native to the area are spaced 6-10 feet apart so they can maximize the water they can receive. The highest historical number of acres burned was in

2000 at about 10 acres. The yearly average is below 5 acres see figure 1¹. Most fire calls to the fire department are human-caused.

The map by Cal-Adapt shows that Barstow is not a high fire risk.

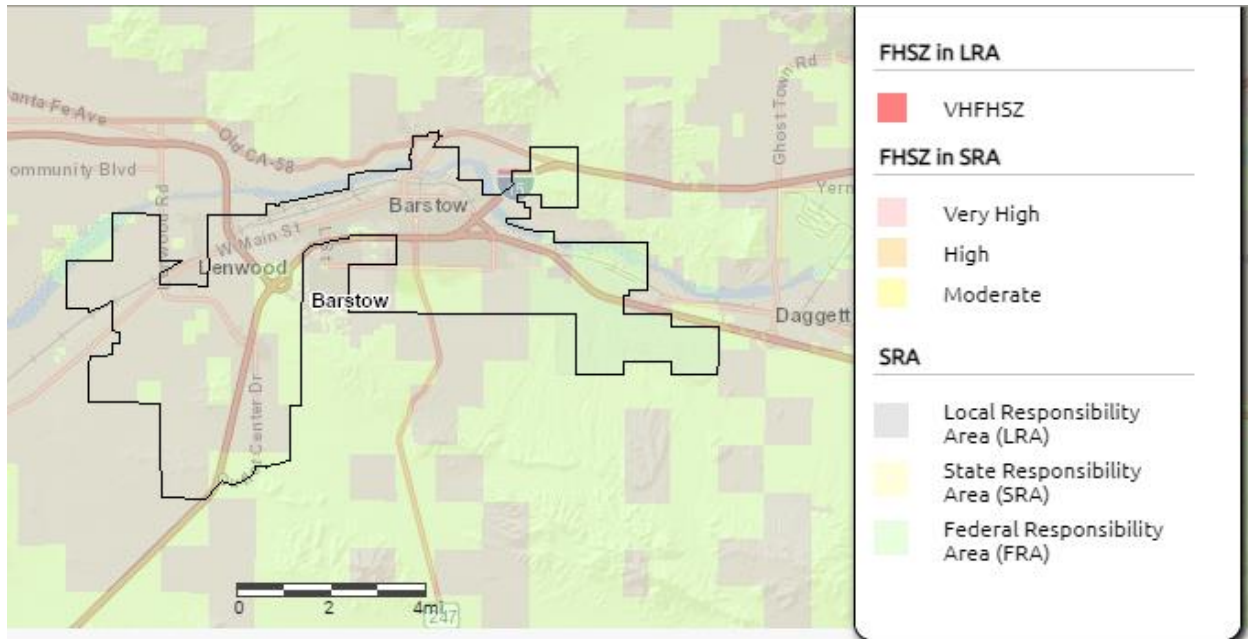


Figure 1-Department of Forestry and Fire Protection Map

Future Demand for Police and Fire Services

The City's continued growth is the primary factor in determining additional demand for police and fire protection service. The exact timing and location of additional police and fire facilities that may be necessary to provide adequate safety related services are dependent upon the type, location, intensity, and pace of future development.

While these may be difficult to precisely determine, the City, in general terms, is expected to grow by roughly 1-2% annually between 2021 and the General Plan horizon year of 2030, with much of this growth expected to occur as infill and in the southwest portion of the City. Depending upon the amount of future development that actually occurs as well as its location it may be necessary at some point in the future to identify locations for additional police and/or fire service facilities, this is unlikely to occur within the time frame covered by the current General Plan. It may also be desirable to increase public safety staffing levels in order to maintain or improve upon current response times should the community grow in the manner projected by the General Plan. For example, the municipal services agreement under which the proposed casino would be established calls for a new fire station to be built in its vicinity should

¹ Cal-Adapt. (n.d.). Retrieved April 1, 2021, from <https://cal-adapt.org/tools/local-climate-change-snapshot/>

this project come to pass. If the casino is built it is likely a satellite police station would also be placed in the area. Similarly, to the extent that large-scale industrial development was to occur in the southwest portion of the city additional police and/or fire facilities may be required.

GOALS - Emergency Personnel/Public Safety Goals

GOAL 1: Maintain optimal levels of service and quality for fire and police protection, thereby ensuring the preservation and protection of health, well-being, and property for all types of development and all residents of the community.

POLICY 1A: Have police and fire staffing levels in proportion to the City's overall population, household, and employment growth.

STRATEGY 1.A.1: Budget for appropriate police and fire staffing levels based upon increases in the City's population, housing, commercial and industrial development. SE-4

STRATEGY 1.A.2: Promote collaboration between the Fire Protection District, Police Department and Community Development Department in the sharing of data and analysis to be utilized in the preparation of departmental staffing requests.

POLICY 1B: Implement strategies geared toward maximizing discretionary patrol time on the part of public safety personnel.

STRATEGY 1.B.1: Seek input from existing personnel concerning existing barriers to discretionary patrol time and work with staff to reduce any such barriers identified.

STRATEGY 1.B.2: Continue to utilize and seek to expand utilization of non-sworn personnel for the performance of functions that are peripherally related to the primary public service functions of sworn police and fire officers so that sworn personnel can have as much time as possible to focus on their core responsibilities of maximizing public safety.

GOAL 2: Expand police and fire facilities as needed in conjunction with future planned development.

POLICY 2A: Review all new development proposals, as well as significant remodeling projects to determine potential impacts to public safety and the provision of police and fire protection services.

STRATEGY 2.A.1: Collaborate with Building Department personnel in the process of reviewing development proposals. S

STRATEGY 2.A.2: Ensure that all proposed development is designed to provide unencumbered access for police, fire, and paramedic vehicles.

POLICY 2B: Ensure, through planning and assessment, the adequacy of police and fire staffing and facilities to accommodate planned residential, commercial, and industrial growth.

STRATEGY 2.B.1: Review and modify police and fire assessment fees annually to ensure that there are adequate funds to cover annual operating costs.

STRATEGY 2.B.2: Identify sites in the vicinity of large development projects that are suitable for police and/or fire stations/sub-stations.

STRATEGY 2.B.3: Continue to pursue funding from grant sources for public safety facilities and staffing enhancements.

GOAL 3: Continue to promote public safety by maintaining and enhancing prevention, education, and outreach programs.

POLICY 3A: Develop new safety & outreach programs for the community.

STRATEGY 3.A.1: Collaborate with Barstow Police Department (BPD) and Fire District Staff to develop new community outreach & educational programs.

STRATEGY 3.A.2: Ensure that all proposed programs will provide the community with the most effective safety information and assistance.

STRATEGY 3.A.3: Identify sites for the programs that will allow information to be disseminated in a clear and thorough manner.

STRATEGY 3.A.4: Assess each new program to determine the effectiveness of the program.

STRATEGY 3.A.5: Continue to seek information from the community about prevention programs that they believe can be beneficial for them.

Seismic Hazards

The City of Barstow and its vicinity is subject to a number of possible threats to public safety. First, like much of southern California, Barstow is located in an area that is subject to strong seismically induced ground shaking. Two earthquake faults, the Barstow Fault and the Lenwood Fault, traverse the city in a southeast-to-northwesterly direction. At least three additional known faults, including Mount General, Calico and Camp Rock, are located close enough to the city to present the possibility of seismically induced hazards, including strong ground shaking adversely affecting the safety of the community. (see Exhibit S-1)

Since 1992, a number of earthquakes of magnitudes in excess of 3.0 have occurred in close enough proximity to cause significant ground shaking in Barstow, most notably the following:

- Landers Earthquake; magnitude 7.5, 74 miles southeast of Barstow on 6/28/92
- Big Bear Earthquake; magnitude 6.5, 62 miles south of Barstow on 6/28/92
- Hector Mine Earthquake; magnitude 7.1, 47 miles southeast of Barstow on 10/16/99
- Ridgecrest Earthquake, magnitude 7.1, abt 82.5 miles northwest of Barstow, 7/6/19
- Searles Valley earthquake, magnitude 6.4, abt 88.5 miles northeast of Barstow, 7/4/19
- Unnamed earthquake, magnitude 4.6, 14 miles northeast of Barstow, 1/25/20

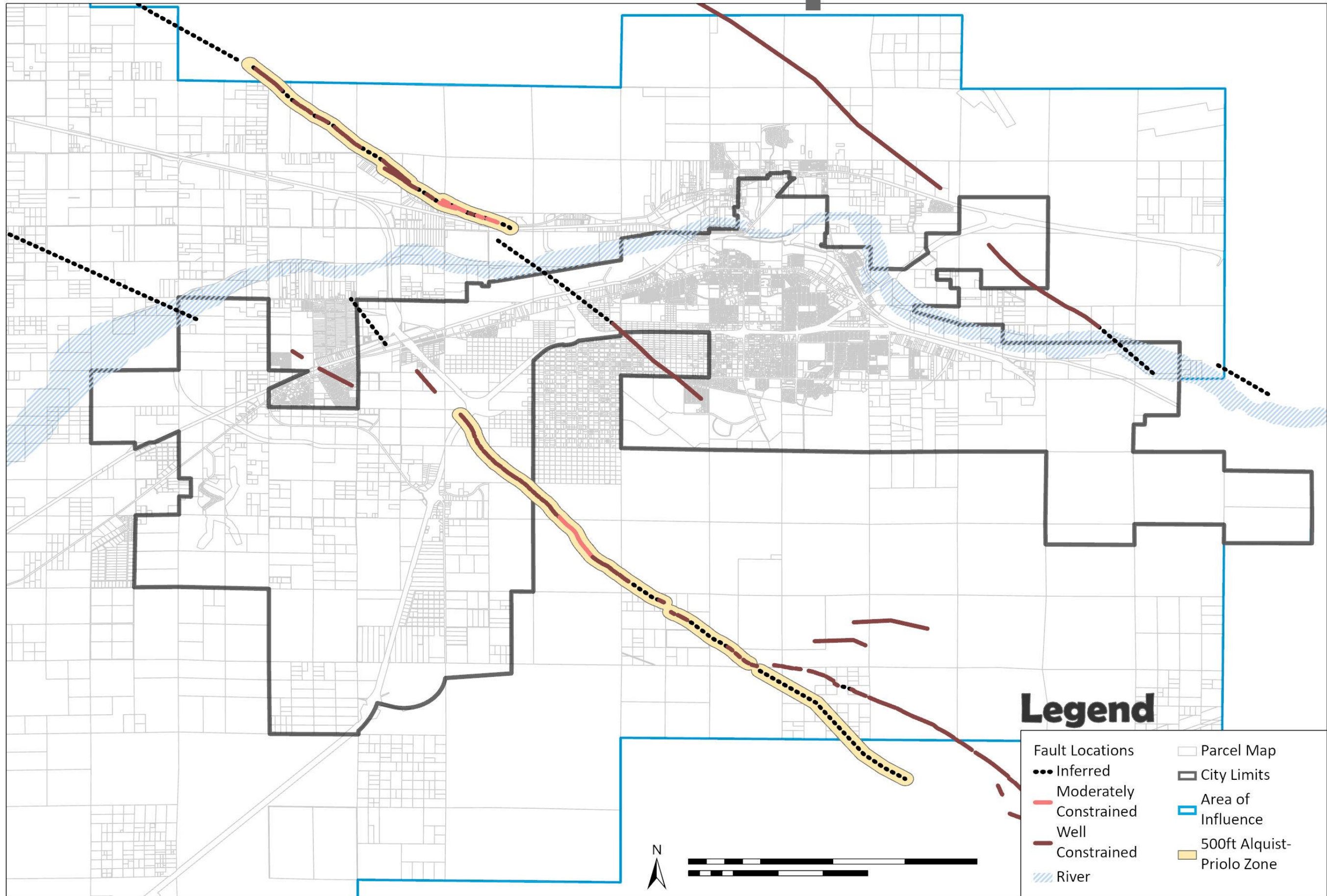
The Barstow and Lenwood faults include 500-foot wide Alquist-Priolo zones, within which no publicly occupied structures can be constructed. Outside of these zones, while there are no prohibitions on building construction; there are standards set forth in the California Building Code standards for Seismic Zone D, in which the entire city is located. In addition to seismic safety threats, the City may also be vulnerable to human-caused emergencies, including train accidents along the Burlington Northern/Santa Fe Railroad line that bisects the city, vehicular accidents and/or toxic spills along Interstate 15 and 40, which pass through the community, and wildfires in portions of the city and surrounding area containing flammable vegetation. The prevalence of these safety hazards necessitates adequate emergency preparation and appropriate land use planning to encompass threat minimization and mitigation.

The City adopted a comprehensive emergency preparedness plan in 2015 and will continue to be periodically updated to ensure compliance with federal and state emergency planning requirements. Plans and systems must be maintained and upgraded as needed to keep pace with population growth, new construction, business development, and growth-induced circulation issues. The City's emergency preparedness plan designates the 861 Barstow Rd, as the Emergency Operations Center (EOC) and the City Hall Council Chambers, located at 220 Mountain View Avenue, as the secondary EOC.

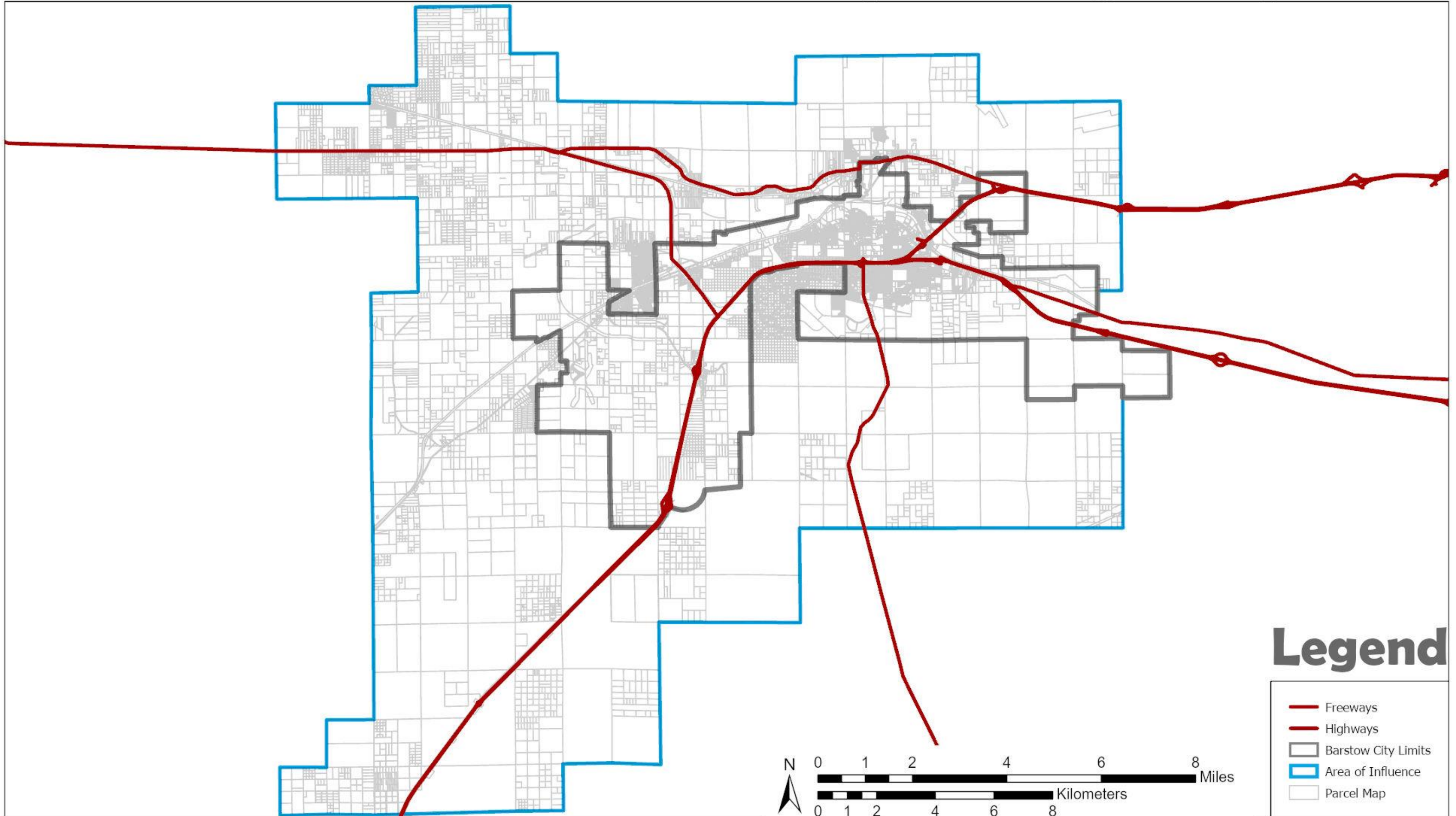
Emergency Evacuation Routes

Designated emergency evacuation routes are illustrated on Exhibit S-2. These routes include State Highway 247 to the south, State Highway 58 to the north and Historic Route 66 to the east and west. Utilization of these roadways for emergency evacuation will be necessary in the event that interstate highways become impassable or inaccessible.

Seismic Hazards Map



Evacuation Routes -Freeways & Highways



Flooding

Barstow is situated on alluvial deposits dissected by numerous small intermittent streams. The primary hydrologic feature within the planning area is the Mojave River which originates in the San Bernardino Mountains. The River flows in a northeasterly direction finally emptying into Soda Lake. The flow of the Mojave River is seasonal though it carries discharges from Lake Arrowhead, Silverwood Lake, and Mojave River Forks Reservoir.

Local hydrology consists of small intermittent streams draining the hills located to the north and south of the City and emptying into the Mojave River. Water reaching the Mojave River is carried eastward out of the City limits. The highest elevation within the corporate limits is 2,720 feet, located near Barstow College. The lowest point of the City is 2,069 feet in the flowline of the Mojave River to the northeast. Elevations for most of the developed area of the City range from 2,100 to 2,400 feet.

The Mojave River is typical of major Southern California drainage courses. The drainage area is 1,290 square miles and has the potential of carrying large discharges, generated from major storms, although it is a dry sand wash most of the time. This apparent lack of water has resulted in a dangerous condition with development occurring in the flood plain without the realization of the flood potential. Recent major floods occurred in 1969, 1982 and 1993, all of which caused flooding of the residential area along Crooks Street adjacent to the Mojave River.

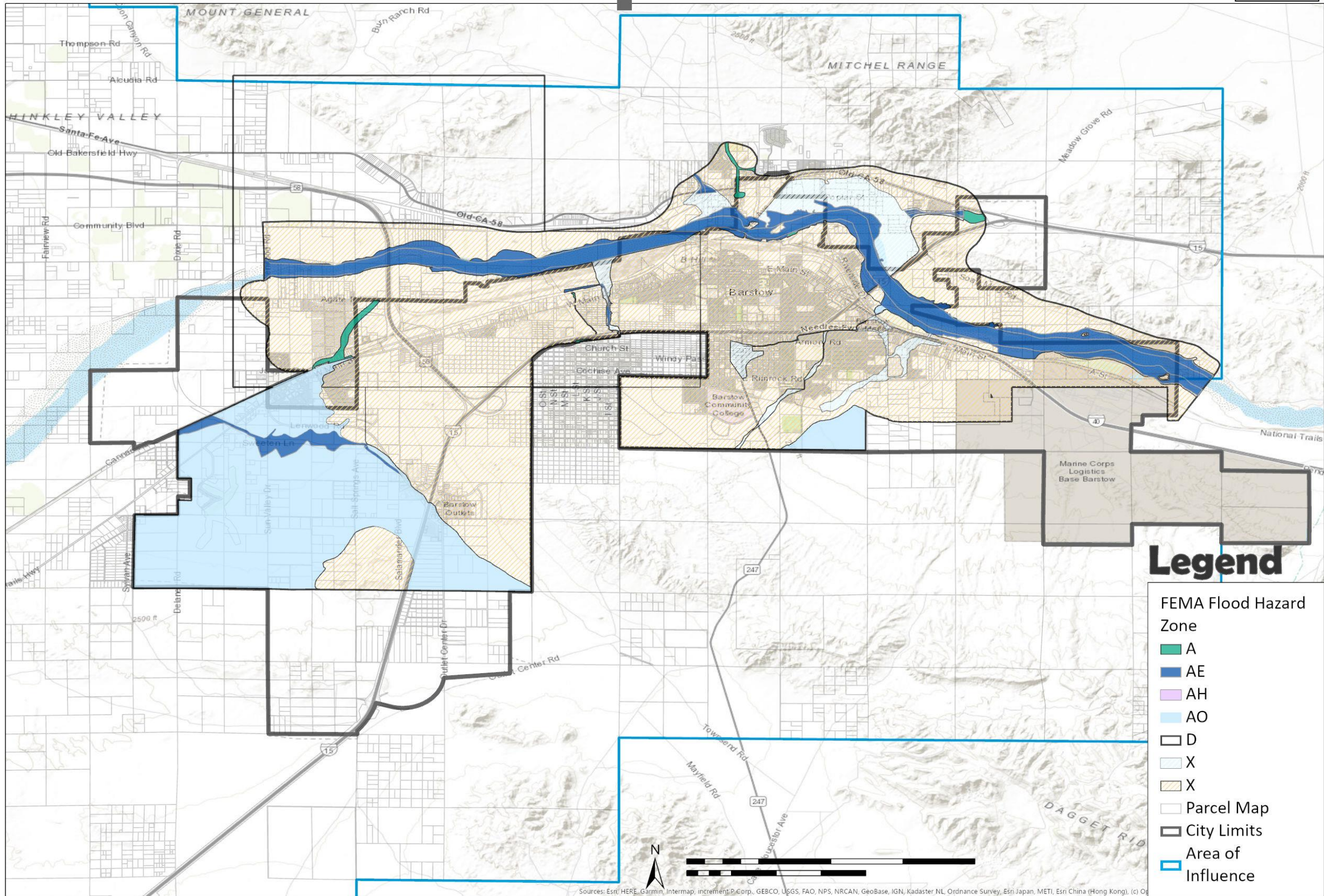
The Flood Insurance Study performed by the Federal Emergency Management Agency (FEMA) in August of 2008 and updated in September of 2014, identified the principal flooding problems affecting the City. The Study indicated that flood water from the Mojave River had the greatest potential for causing flood-related damage to the City. The Study also stated a similar situation exists for several channels that directly flow from the adjacent hillsides into the Mojave River.

The City of Barstow contains flood plain areas, identified by the Federal Emergency Management Agency (FEMA), indicating that several areas of the City are subject to 100-year floods including: the Mojave River Channel, the Lenwood area, and the southeastern section of South Barstow. The National Flood Insurance Program has identified and mapped those areas of the City that are at risk due to periodic flooding. The FEMA, Exhibit S-3, shows areas designated for flood insurance and flood plain management applications.

Flood zone designations indicated on the map refer to specific areas which may be subject to flooding, based on engineering and hydrologic studies. The map identifies 100-year (1% annual chance or base flood) and 500-year (0.2% annual chance) flood plains, floodways, location of selected cross-sections used in the hydrologic studies, and the anticipated flood-water depths. The following flood zone designations are found on the Flood Insurance Rate Map produced for the City of Barstow:

FEMA Flood Map

S-3



- Zone A:** Areas subject to flooding in the event of a 100-year flood though Base Flood Elevations and flood hazard factors have not been determined.
- Zone AE:** Areas subject to flooding in the event of a 100-year flood, Base Flood Elevations determined
- Zone AO:** Areas subject to shallow flooding (one to three feet) in the event of a 100-year storm.
- Zone X (blue):** Areas subject to flooding in the event of a 500-year (0.2% annual chance) flood; areas subject to a 100-year flood (1% annual chance) with average flood-water depths anticipated to be less than one foot or with drainage areas less than 1 square mile; or areas protected from the base flood by levees.
- Zone X (tan):** Areas determined to be outside the 500-year (0.2% annual chance) floodplain.
- Zone D:** Areas in which flood hazards are undetermined but possible.

Storm Drains

The City's storm drainage system is shown on Exhibit RC-2. The Barstow Master Plan of Drainage addresses drainage problems in the City and recommends a master drainage system to resolve these problems. The plan shows new drainage facilities in areas that are subject to damage due to the flood waters of a 100-year flood. These facilities will not entirely resolve flooding issues, because other problems exist in areas that carry much less than the amount of flood water that necessitate localized facilities. A development program that includes small, localized facilities along with curbed streets will help solve these localized flooding problems that are not addressed by the City's Master Plan. Flood control measures have recently been completed and are currently being addressed in the City's comprehensive Capital Improvement Program update.

Additional development within the planning area will increase runoff which in turn may impact the carrying capacity of existing storm drain facilities. These facilities could be significantly affected, due to the construction of additional impervious surface improvements. Future projects will be required to address the increase in runoff flows due to their development

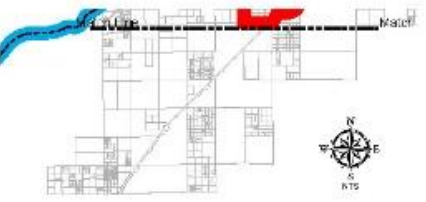
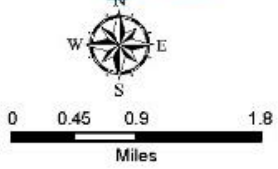
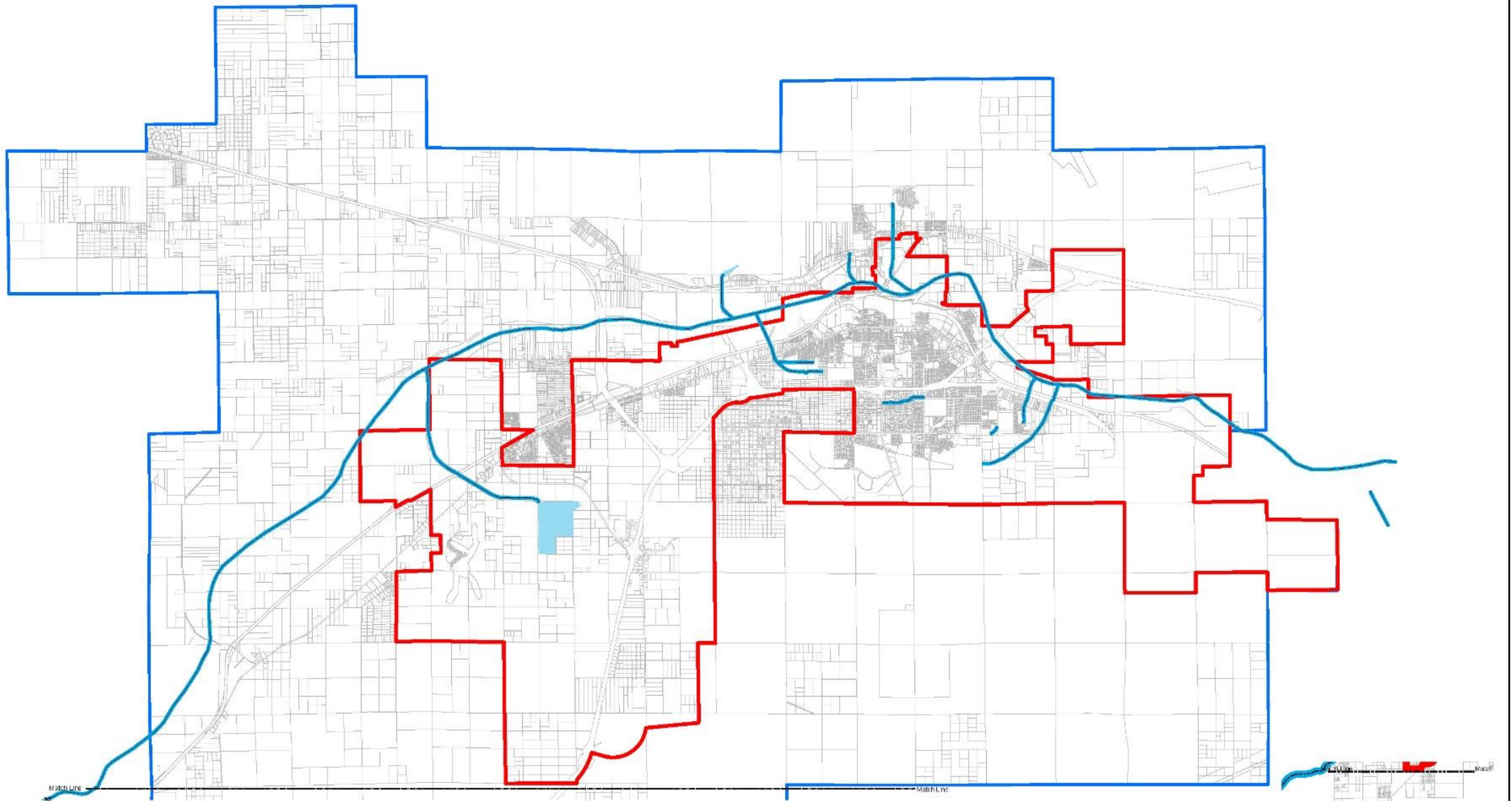


Exhibit RC-2
Storm Drainage Facilities

Source: San Bernardino County GIMS - Public Works 2014

- Legend**
- City Limits
 - Sphere of Influence
 - Spreading Basin
 - Channels

Storm Water

Developers are often surprised to find it floods in the desert, but bone-dry soil is hydrophobic and so water sheets off the dry land into the riverbed. Because of water sheeting off the landscape, it is important to capture water onsite to reduce flood flows during rain events.

The National Pollutant Discharge Elimination System (NPDES) Permit (amended from the Clean Water Act, in 1972), established that discharge of pollutants to waters of the United States from any point source is unlawful unless the discharge complies. In 1990, the U.S. Environmental Protection Agency (USEPA) provided regulations for storm water discharges associated with construction and land disturbance activities. In addition, the agency incorporated a Municipal Separate Storm Sewer Systems (MS4) Permitting Program, commonly known as MS4-Phase I for larger cities. By 1999, federal and state permits decreased the construction/land disturbance requirement from five acres to one acre. In 2003, as part of the next phase for the MS4 permit, Phase II provided coverage for smaller municipalities and included non-traditional Small MS4s (military bases, public campuses, prisons, and hospitals). In 2014, the City of Barstow applied for the MS4-Phase II permit and at present is integrating these requirements into the local storm water management plan.

The City of Barstow enforces new projects to adhere to the most current Construction General Permit (CGP). Concurrently, the City of Barstow is establishing Low Impact Development (LID) Standards and Municipal Codes and Enforcement Measures to meet all the water quality requirements of the Phase II MS4. Individual Permits, Industrial Stormwater Management and Non-Traditional Small MS4 Permits are project specific and are managed by project owners/management and regulated by the assigning jurisdiction(s).

Storm Water Pollution Protection Plans:

The Legally Responsible Person (LRP) (i.e., Landowner/Development Owner) will be required to comply with the latest edition of the California Construction General Permit (CGP). This permit includes the preparation of an Erosion Control Plan and Storm Water Pollution Prevention Plan (SWPPP) by a Qualified SWPPP Developer (QSD), submittal of a Notice of Intent (NOI) application, and payment of required fees submitted on the Storm Water Multiple Application and Report Tracking System (SMARTS) online tool.

The city reviewer may request a copy of the SWPPP for clarification. Review intensions are for best management practices (BMP) suitability only, and it will remain the responsibility of the signing Qualified SWPPP Developer (QSD) and Legally Responsible Person (LRP)/Owner for adequacy and compliance. Upon receipt of a Waste Discharge Identification (WDID) Number by the State Water Board, and approval of plans by the requisite City departments, developers may obtain grading or other permits to begin land disturbance activities.

Water Quality Management Plan/MS4:

The City of Barstow will require the developer to comply with City of Barstow Development Standards that incorporate site design with approved Low Impact Development (LID) Standards. When required, the developer shall prepare as part of plan submittal a Water Quality Management Plan (WQMP) for the proposed project. Upon approval of the WQMP, the project's Legally Responsible Owner (Landowner/Development Owner) must sign and record the necessary documents attached to the WQMP.

The City of Barstow will require the developer to provide an Erosion Control Plan for all new projects of any size. Active projects must include construction waste disposal and recycling measures. Owners and occupants of property and owners of businesses within the city shall comply with Federal, State, and local water quality policies. The city may require Industrial/Commercial facilities proof of NPDES compliance prior to issuance or reissuance of city permits, licenses or certificates.

The developer, Landowner, or Site Operator must agree to provide access to the city appointed Storm Water Authorized Enforcement Officer, Qualified SWPPP Developer (QSD) or Qualified SWPPP Practitioner (QSP) to the project site and its surrounding areas during normal construction/operation hours and activities. The city appointed Storm Water Authorized personnel will conduct a city designed Best Management Practices (BMPs) Inspection, without notice or scheduled arrival. Non-compliance issues will be handled according to severity, and per the CGP/MS4 requirements, Lahontan Regional Water Control Board, state and federal regulations.

Goals - Flood Control

GOAL 4: Improve Flood Infrastructure

POLICY 4.A: Continue to maintain and upgrade existing flood control infrastructure.

STRATEGY: Continue cooperative agreements with San Bernardino County Flood Control District, working with new development to design and implement Low Impact Development standards and proactively inspect, maintain, and improve existing flood control infrastructure.

Policy 4.B Enforce SWPPP and WQMP standards

Emergency Preparation Goals, Policies and Strategies

GOAL 5: Maintain a comprehensive Emergency Operations Plan for the City, ensuring a high level of responsiveness to natural and human-caused disasters and other emergency situations.

POLICY 5.A: Periodically update the Emergency Operations Plan and implement the plan's provisions on an ongoing basis.

STRATEGY 5.A.1: Engage appropriate personnel from the BFPD, BPD, Building Department and other entities on ongoing monitoring and assessment of public facilities and publicly occupied buildings to ensure public safety in the event of an emergency.

STRATEGY 5.A.2: Conduct periodic drills and safety meetings to ensure that all designated responsible personnel are aware of the Plan and their responsibilities in the event of an emergency.

GOAL 6: Continue to actively participate in regional and statewide emergency preparation efforts.

POLICY 6.A: Cooperate and coordinate with San Bernardino County Emergency Services, Golden State Water Company, Southern California Edison and Southwest Gas Company and other agencies and utilities in the development and dissemination of information and instructions on appropriate actions in the event of a local disaster or emergency.

STRATEGY 6.A.1: Continue to engage in ongoing communication with these entities concerning emergency preparation.

STRATEGY 6.A.2: Provide the organizations identified in Policy 2.A with updated emergency preparation plans and procedures.

GOAL 7: Ensure that all development occurring under the General Plan is designed and built in accordance with current standards for seismic safety, fire protection and defensible space.

POLICY 7.A Consider and assess vulnerability to natural and manmade disasters or emergencies when reviewing proposals for the siting and development of public/quasi-public facilities such as schools, water towers and power and communication transmitters.

STRATEGY 7.A.1: Incorporate hazards assessment into the project review process for all proposed new development.

STRATEGY 7.A.2: Conduct follow-up inspections to ensure that structures are built as designed and that all safety-related conditions of approval continue to be met.

GOAL 8: Provide avenues for residents to escape the heat.

POLICY 8.1: Ensure that public community gathering spaces have air-conditioned indoor space or permanent shaded areas, as well as proper hydration supplies.

Climate Vulnerability Assessment

California State law Title 7 Division 1 Chapter 3 Article 5 section 65302 (4) says general plans shall assess vulnerability to climate change using available state tools such as Cal-Adapt. This section will cover potential hazards from climate change and potential mitigation strategies.

An interactive map showing Southern California's risk to various hazards including Flood, Fire, Landslide and Wildfire hazards can be found at <https://www.arcgis.com/apps/webappviewer/index.html?id=4168a1efbdca40f889ea9dba43e04b4e&extent=-13138981.0556%2C4022288.1589%2C-12669351.9538%2C4239369.3193%2C102100>

The two hazards common to Barstow are Extreme Heat and Flooding due to the hydrophobic nature of extremely dry soil discussed in Flood Control.

Extreme Heat

Cal-Adapt anticipates that due to climate change average Barstow temperatures may increase between 2 to 6 degrees. This is predicted to lead to major increases in extreme heat days. Precipitation is not projected to change but the greater heat may cause drought. It is not uncommon for Barstow to hit 109 degrees Fahrenheit in the heat of the summer. The hottest recorded temperature in Barstow was 116

Wildfires are projected to decrease in the area of Barstow.

Extreme heat has a regular impact in the City of Barstow. Stress from extreme heat can adversely affect Barstow in several ways. For example, there could be challenges meeting peak energy needs as demand from air conditioning increases while efficiency of energy transmission decreases. Extreme heat causes negative health impacts on outdoor workers, seasonal residents and migrant workers, homeless persons, individuals with existing medical conditions, and senior citizens. Higher temperatures could also negatively affect air quality, agriculture, and water services.

Annual Average Maximum Temperature

Average of all the hottest daily temperatures in a year.

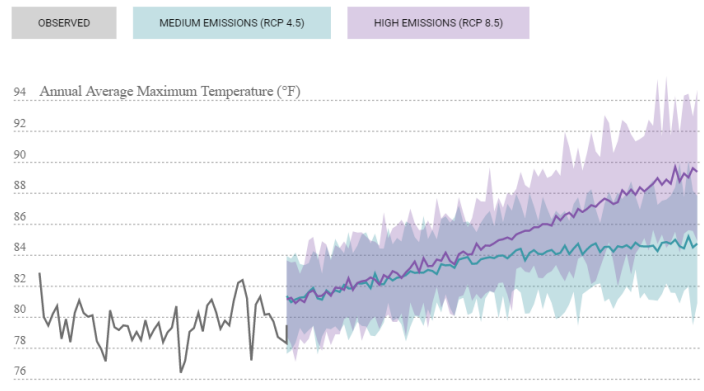


Figure 2