

**City of Calexico**  
**Draft Safety Element**

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# **DRAFT SAFETY ELEMENT**

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## **8.1 INTRODUCTION**

The primary purpose of the Safety Element is to identify and assess natural and human-made safety hazards and then minimize their danger to life and property. These hazards have a direct impact on the quality of life and the well-being of residents of Calexico. This element examines the following public health and safety concerns:

- Seismic Hazards - including earthquakes and their secondary hazards
- Flooding
- Wild Land and Urban Fires
- Evacuation Routes/Emergency Access
- Peak Load Water Supply
- Hazardous Materials
- The New River

Achieving safety in the City of Calexico will ensure one of the most fundamental expectations—that lives and property will be protected from human-made and natural hazards to the extent feasible. The Safety Element is responsive to this fundamental expectation because it:

- Provides a sense of security and well-being to residents.
- Identifies facilities and services that support safety functions that are essential to the future development of the City.
- Offers some measure of assurance to those who would invest in the City that their investment will be protected to the extent possible and feasible.
- Demonstrates a commitment to this important aspect of community development by the City.
- Adds to the desirability of the community as a place to attract business investment.

## **8.2 EXISTING CONDITIONS/HAZARD ASSESSMENT**

### **8.2.1 Geologic**

The City of Calexico is particularly susceptible to geologic hazards such as earthquakes and the secondary hazards associated therewith. The primary hazard from earthquakes is significant because of the proximity of major faults and the soil composition of the Imperial Valley. The secondary impacts caused by earthquakes include fires, ground displacement, soil liquefaction, and environmental contamination.

Earthquake is a term used to describe both sudden slip on a fault and the resulting ground shaking and radiated seismic energy caused by the slip, or by volcanic or magmatic activity, or other sudden stress changes in the earth.

Earthquakes are caused by the sudden release of energy stored in the earth's core. Essentially, rigid plates form a "shell" around the fluidic layer below it. As these plates shift and grind against one another, energy is released which is known as plate tectonics. It is the areas near the boundaries or separations (faults) in the plates that the majority of energy is released.

The Imperial Valley is located in what is known as the Salton Trough, bordered on the east by the San Andreas and Imperial Faults, and to the west by the San Jacinto-Coyote Creek and

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Elsinore-Laguna Salada Faults. The Salton Trough is one of the most seismically active areas in the United States.

The major faults surrounding the Calexico include the Imperial and Brawley Faults to the east, the Superstition Hills and Coyote Creek Faults to the north, and the Laguna Salada Fault to the west. California Public Resources Code has created special zones for areas close to active faults called Alquist-Priolo Earthquake Fault Zoning which enforces special building requirements for structures in these areas. The City of Calexico is not located within an Alquist-Priolo Earthquake Fault Zone.

Table S-1 below shows the distance of the regional faults closest to Calexico. Exhibit S-1 shows the faults.

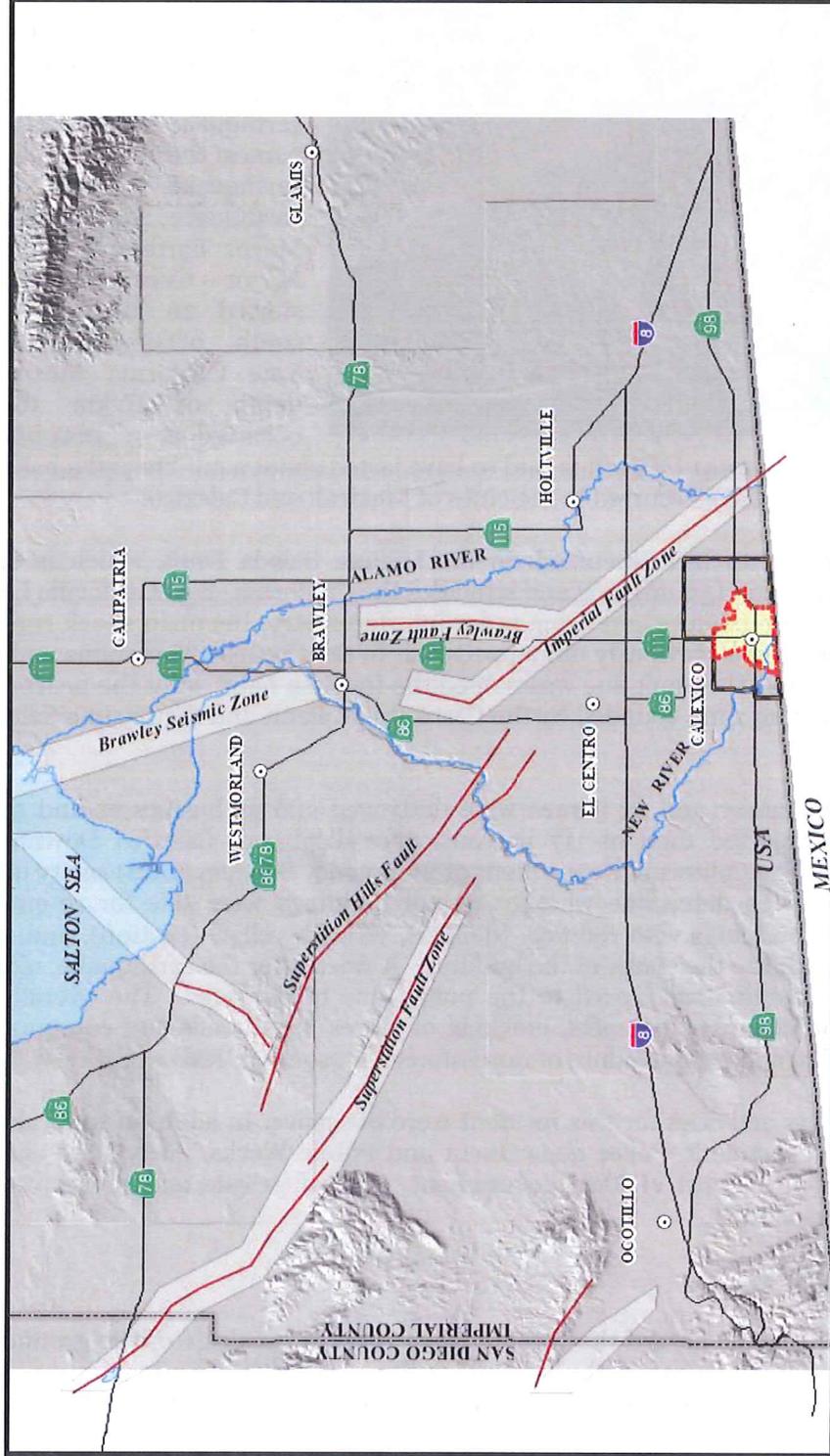
**Table S 1  
City of Calexico  
Closest Regional Faults to Highway 111/Jasper Road**

<b>Fault Name</b>	<b>Distance from Hwy. 111 and Jasper Rd. (Miles)</b>	<b>Direction from Hwy. 111 and Jasper Rd.</b>
<b>Imperial Valley Faults</b>		
Imperial	5.4	NE
Brawley	8.6	N
Cerro Prieto	14	SSE
Brawley Seismic Zone	17	N
<b>San Jacinto Fault System</b>		
Superstition Hills	10	NW
Superstition Mountain	17	NW
<b>Elsinore Fault System</b>		
Laguna Salada	17	WSW

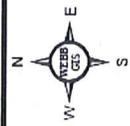
Source: Calexico Mega Park EIR, April 29, 2013, Page 3.7-3

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Exhibit S 1  
Fault and Seismic Zones



Source: California Dept. of Conservation  
Division of Mines and Geology  
Geologic Data Map No. 6, 1994



- LEGEND**
- ACTIVE FAULTS
  - ▭ ACTIVE SEISMIC ZONES
  - ▭ LONG-TERM SPHERE OF INFLUENCE
  - HIGHWAYS
  - ▭ CALEXICO CITY LIMITS

Not to Scale

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The most recent earthquake impacting Calexico happened on April 4, 2010, Easter Sunday; an earthquake of 7.2 magnitude with aftershocks as strong as 5.4 magnitude. This particular earthquake is known by several names: the 2010 Baja California earthquake, 2010 Easter earthquake, 2010 Sierra El Mayor Earthquake, or 2010 El Mayor – Cucapah earthquake. It started 26 kilometers (16 mi) south of Guadalupe Victoria, Baja California Mexico, at a depth of 10 km (6.2 mi). It occurred at 3:40:41 pm Pacific

Daylight Time (PDT) (22:40:41 UTC). It is said to have lasted about a minute and a half. Most of the damage in this earthquake occurred in the cities of Mexicali and Calexico.

The quake was believed to have occurred on the Laguna Salada Fault, which is about 60 kilometers (37 mi) to 80 km (50 mi) long and straddles the California–Baja California border. By the distribution of aftershocks and using radar interferometry, the main shock rupture was found to have occurred on a previously unmapped fault in the Cucapah Mountains and beneath the Colorado River Delta. This fault line was named the Indiviso Fault, after the nearby town of El Indiviso. A liquefaction zone bounded by the Cerro Prieto Fault and the Laguna Salada Fault was observed.

In Calexico, nine businesses and 43 homes were destroyed and 55 businesses and 53 homes were damaged. A reported total of 117 persons were displaced. Calexico Downtown was extensively damaged. The California Department of Emergency Services (DES) safety inspectors were immediately sent to determine whether or not buildings were safe for re-entry. The inspectors tagged 63 buildings with red tags (danger), 78 with yellow (caution), and 290 with green (safe) tags to indicate the status of the building. A week after the earthquake, nine blocks of downtown Calexico remained closed to the public due to damages. The overall damage included leaning and collapsed parapets, cracking of stores' front walls and columns, broken windows, fallen soffits, and partial failure of unreinforced masonry (URM) walls.

Response and recovery activities for this incident were extensive. In addition to local agencies including the Fire Department, Police department and Public Works, many state and federal agencies responded in support of local government. Several private and non-governmental organizations also responded.

## 8.2.1.1 Surface Ruptures

Surface rupture is a seismic hazard that occurs when there is breakage of the ground surface along the trace of a fault line caused by an earthquake. However, they may occur anywhere within a fault zone. The likelihood of surface ruptures are directly proportional to the magnitude of the earthquake and are caused by the upward fault displacement thrust from the epicenter. Surface ruptures can cause tremendous damage to anything located along its path.

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The City is not located on a known fault line that could produce a surface rupture during an earthquake event.

## **8.2.1.2 Ground Shaking**

As energy is released along a fault during an earthquake, a shockwave is created that moves through the soil and rock away from the epicenter. This release of energy causes the ground to shake. The severity of the shaking depends on the strength of the earthquake, the distance from where the shaking is felt relative to the epicenter, and the soil composition between the epicenter and the receptor site. Calexico is most susceptible to earthquake damage from ground shaking and, in fact, the City of Calexico's water treatment plant was heavily damaged by oscillating water whose damaging energy was generated by the ground shaking of the 2010 Easter Earthquake. Following the earthquake, the plant's capacity was reduced from 10 million gallons per day (mgd) to 5 mgd.

## **8.2.1.3 Ground Failure**

Ground failure occurs from the shock of an earthquake and is almost exclusively manifest in the form of a landslide. Landslides are caused by the combination of gravity, poor geologic conditions, along with the seismic event. Due to its flat topography, Calexico is not susceptible to landslides.

## **8.2.1.4 Liquefaction**

Liquefaction is the loss of stability or strength in certain soil types as a result of a seismic event. Typically liquefaction occurs in granular, unconsolidated, saturated soils like those deposited in the Imperial Valley by the Colorado River. The soil composition of the Valley adds to the potential seismic risk. Because the Valley's soil is a result of a deep layer of silt, and it is irrigated for agricultural purposes, it is particularly susceptible to liquefaction.

The City of Calexico and the surrounding area is particularly susceptible to liquefaction because of crop irrigation and the geologically young and unconsolidated sediment soil. Damage caused by liquefaction is the result of the ground becoming liquefied and thus flowing or lurching. The ground may also act like quicksand and cause structures to sink or tilt. Although liquefaction represents a risk to structures, it doesn't necessarily preclude development as there are mitigation measures available to reduce the risk.

## **8.2.1.5 Subsidence**

Land subsidence is the lowering of the land-surface elevation from activities occurring underground. Typically it is caused by the pumping of water, oil, or gas from subterranean reservoirs or from peat oxidation (shrinkage of buried organic matter) or hydro compaction (initial wetting of soils that causes the soil to compact under their own weight), and earthquakes. Subsidence could be a problem in the Imperial Valley because of the irrigation and drainage systems. These systems utilize gravity-fed systems, and even minor alterations in elevation could disrupt these and cause localized flooding. Another source of potential subsidence in Calexico and the surrounding areas are geothermal plants, whose rate and volume of extraction/injection are key variables that could lead to subsidence.

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## 8.2.1.6 Structure Hazard

The City of Calexico has adopted all the Uniform Building Codes (UBC) and uses the UBC seismic design standards for all buildings developed in the City. The original UBC were formulated in 1943 and are updated on an on-going basis. The City acts to adopt new Codes as they are published. Recent industry experience has shown that adherence to the aforementioned codes greatly increases the chance that a structure will endure an earthquake with little or no significant damage.

## 8.2.1.7 Earthquake Risk Assessment

The *Imperial County Multi-Jurisdictional Hazard Mitigation Plan Update* found that Calexico's has a "very high" risk probability of being affected by an earthquake. Very high means almost certainty that an earthquake event will occur. The City also had a "high severity" rating meaning that there would be severe impact from the earthquake event. The risk assessment of the *Hazard Mitigation Plan* concluded:

The City of Calexico is particularly susceptible to geologic hazards such as earthquakes and the secondary hazards associated therewith. The primary hazard from earthquakes is significant because of the proximity of major faults and the soil composition of the Imperial Valley. The secondary impacts are related to the extensive irrigation and drainage as well as other consequences caused by earthquakes such as fires, ground displacement, soil liquefaction, and environmental contamination. Calexico has adopted an Earthquake Hazard Reduction in Existing Buildings Code to address safety issues associated with earthquakes directly.

Risk assessment is the process of comparing the cost to avoid a risk with potential cost of the damage produced by the hazard. The purpose of evaluating seismic risk is to reduce the risk to an acceptable level based on structure use because it is not possible or practical to eliminate all risk to life and property. While basing planning decisions on risk is difficult, risk reduction measures can be implemented. We cannot reduce the chance of an earthquake occurring, but we can develop plans to help minimize its impact.

Acceptable risk is defined by the Council of Intergovernmental Relations as -

*The level of risk below which no specific action by government is deemed to be necessary other than making the risk known.*

When establishing acceptable risk levels, consideration is given to the importance of the facility after the seismic event for the preservation of public health, and safety, the number of people likely to be in the building, whether its use is voluntary or involuntary, and the cost of eliminating the risk. Certain facilities are very important and must remain usable after a seismic event, such as fire and police stations, schools, public utility facilities, and hospitals and other medical facilities.

Table S - 2 shows the allowable risk levels per land use and the estimated cost to achieve the accepted level of risk.

Occupancy levels must be a consideration in determining acceptable risk.

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Structures with high occupancy levels such as theaters, schools, churches, meeting halls, office buildings, apartment buildings, and shopping centers should have a low level of acceptable risk. Conversely, higher levels of risk may be acceptable in low-occupancy uses such as single-family houses and warehouses.

Another factor to be considered when evaluating risk is whether the inhabitants of the structure have a choice as to whether they would otherwise subject themselves to a certain level of risk. Involuntary risk occurs at facilities such as hospitals, schools, and convalescent homes. Persons using these facilities may be restrained or incapable of leaving these during a seismic event, thus only a low level of risk is acceptable.

Perhaps the most significant variable in risk reduction is the cost of doing so. Risk reduction must be balanced against the cost thereof. Costs can be either direct, such as the case with extra reinforcement of a building, or indirect, as in zoning land with a high seismic risk as open space. Three common examples of seismic risk mitigation are:

- Rehabilitation or demolition of nonconforming structures
- Requiring extraordinary design and construction techniques
- Limiting or prohibiting development in dangerous areas

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**Table S 2  
Scale of Acceptable Risks**

Level of Acceptable Risk – see Notes, below	Types of Structures	Additional Project Cost to Achieve an Acceptable Level of Risk
1. Extremely Low <sup>1</sup>	Structures whose continued use is critical or failure catastrophic: nuclear reactors, large dams, manufacturing plants that store toxic or explosive materials.	No set percentage; whatever is necessary to attain maximum safety.
2. Slightly higher than Level 1 <sup>1</sup>	Structures whose continued use after a seismic event is important to public health, safety and welfare: hospitals, police and fire stations, utility centers, bridges and overpasses, smaller dams.	5% – 25% of project cost <sup>2</sup>
3. Lowest possible risk to occupants of structure <sup>3</sup>	High occupancy structures whose continued use after a seismic event would be beneficial: schools, churches, theaters, large hotels, high-rise buildings with high-occupancy, and other structures that commonly attract large numbers of people: civic buildings, large shopping centers, roads.	5% to 15% of project cost <sup>4</sup>
“Ordinary” level of risk to the occupants of structure <sup>5</sup>	Most structures: most commercial and industrial buildings, small hotels and apartment buildings, and single family residences.	1% to 2% of project cost

<sup>1</sup> Failure of a single structure could affect large populations.

<sup>2</sup> Percentage assumption based on structure otherwise being built in accordance with standard California practice. The estimated additional cost assumes that the structure will remain useful after an event.

<sup>3</sup> Failure of a single structure would affect only the occupants.

<sup>4</sup> Percentage assumption based on the structure otherwise being built in accordance with standard California practice. The estimated additional cost assumes that the structure will give reasonable assurance of preventing injury or loss of life but not necessarily remaining useful after an event.

<sup>5</sup> Resists minor earthquakes without damage; resists moderate earthquakes without structural damage but with some non-structural damage; resists minor earthquakes with the intensity of the strongest experienced in California without collapse but with some structural and non-structural damage. In most structures, it is expected that structural damage, even from major earthquakes, could be limited to repairable damage (Structural Engineers Association of California)

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## 8.2.3 Flooding

A flood is defined as an overflowing of water onto an area of land that is normally dry. Flooding is a natural hazard present in Imperial County due to the County's geography, geology and climate. Floods that affect Imperial County can be attributed to three different types of storm events, namely:

- A general winter storm that combines high-intensity rainfall
- A tropical storm out of the southern Pacific Ocean
- A summer thunderstorm, particularly in the desert areas

There are three principal types of flood hazards that may affect Imperial County, namely:

- Stream flooding (including bridge scour and stream erosion)
- Flash flooding (including debris and mud flows)
- Sheetflow flooding (including alluvial fan flooding)

Attachment A shows the Flood Zones located in Calexico. Special Flood Hazard Areas (SFHAs) are subject to inundation by the 1% annual chance flood. The only area in a flood zone is along the New River and it is AE: The floodway is a channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

Conditions upstream in Mexico do affect the New River. As the Mexicali area becomes more urbanized, and very little has been done to control urban runoff there, the potential for flooding could increase in downstream areas such as Calexico. Flooding could also result from seismic damage to the All American Canal and the Central Main Canal.

The *Hazard Mitigation Plan* indicates that Calexico has a “medium probability” of being affected by flooding. Medium in this case means a “50% chance the event could occur.” Flooding would have “medium severity” of impact, meaning there would be a “large impact, but plans are in place to handle.”

## 8.2.4 Fire Hazards

The City of Calexico has a fire hazard rating of 5/5x from the ISO (Insurance Service Office) Commercial Risk Services, Inc. The designation 5/5x indicates there are mixed rating depending on the location of the hydrants and fire stations. The rating is based on a 1 to 10 scale with 10 being the greatest risk. In order to have a “5” rating, structures must be within 1,000 feet of a fire hydrant and within five (5) miles of a fire station. A flow test review was conducted by the City water department and there were no significant issues for fire hydrant flow.

Even though some of the older structures in Downtown Calexico were demolished during the 2010 earthquake there are still some have not been retrofitted for seismic activity and do not contain sprinkler systems. The hydrants in the older part of the City met original fire codes but now some of them are further apart than current codes allow.

The City currently has two fire stations; one at 430 East 5th Street, and the other at 900 Grant Street. Of note, is that the fire stations are located on either side of the Union Pacific railroad tracks which provides for full-service response. Negotiations are under way to acquire a nine

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acre site to develop a new Public Safety Center on Birch Street along State Route 98. The new Center will include a new fire station, fire administration and City Police Department.

Currently, the Calexico Fire Department has one (1) chief, six (6) fire captains, six (6) engineers, eighteen (18) paid firefighters, one (1) fire inspector and an administrative staff. Current staffing levels are considered inadequate according to the performance standards of the adopted *2006 Service Area Plan*. The adopted standard ratio is 1.5 firefighters per 1,000 residents. The City's population estimate as of January 1, 2015 is 41,033. A population this large should be served by 61 firefighters.

The City's emergency services providers, such as fire and police, are currently cooperating with IVECA and RCS for the coordinated efforts Valley-wide to integrate communication within the Valley and between Imperial Valley and San Diego County. The Calexico Fire Department is a member of the Imperial Valley Firefighters Strike Force which is responsible to respond to fire emergencies throughout California. The Department is also a member of the Imperial Valley Hazardous Materials Response Team and is available to respond to hazardous materials emergencies throughout Imperial County. The Department also has a Fire Prevention Bureau headed by the inspector and administers inspections, occupancy permits, and various safety programs throughout the city.

The City has a low risk of damage from wildfires. The undeveloped areas around and outside of the City are either irrigated farm land or sparsely vegetated desert land. Therefore, there is little risk from wildfires due to lack of fuel.

## 8.2.5 Evacuation Routes/Emergency Access

Evacuations and the need for emergency access can become necessary on a localized or City-wide basis depending on the type of emergency situation. Local evacuations and the need for emergency access occur, for example, when a building is on fire. A larger area may need to be evacuated for more catastrophic events such as an earthquake that causes major damage and/or flooding. Should an event occur that would necessitate the mass evacuation or dispersal of people from the City, the surrounding agricultural land is favorable because it is uninhabited and open. The major evacuation routes are Highways 111 and 98, and Interstate 8. All primary local streets in the City connect to the county road system outside of the City.

Localized emergency access relates to things such as adequate roadway widths and turning radii, spaces around buildings, and distances to fire hydrants. The City of Calexico Zoning Ordinance establishes setbacks which provide for safe access around buildings associated with all types of land uses. The *Circulation Element*, Section 3.0, includes policies addressing local street design and appropriate access on major streets. The *Circulation Element's* plan for streets is based on providing adequate cross sections of streets to accommodate through traffic. All new development is subject to these policies and standards. In older areas of the City where such requirements are substandard, the City is working to correct and improve less than ideal access.

## 8.2.6 Peak Load Water Supply

Calexico receives all of its potable water supply from the Calexico Water Department (CWD). The CWD receives the water from Imperial Irrigation District (IID) which is brought from the Colorado River. Currently, about 2% of IID water is divided among nine Imperial Valley communities.

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The City of Calexico's current daily maximum water output is 10 million gallons of potable water. The peak demand of the City of Calexico is 10,481 gallons per minute (gpm) and can be handled by the existing electric pumps which have a capacity of 12,200 gpm. The CWD also has an additional 5,000 gpm fire flow suppression delivered by two natural gas driven pumps.

CWD has purchased property and is in the process of designing a six million gallon (mg) tank near Cole Road and Highway 98 to stabilize and loop the existing water system and serve future development to the east of the City's existing boundaries. The City has the necessary capacity to supply enough water in the event of a disaster. However, a severe earthquake or other natural disaster could destroy portions of the water transmission system, thus causing a short-term water shortage. The Imperial County Office of Emergency Services requires a 10-day storage holding capacity for cities, so interruptions in transmission can be managed.

### **8.2.7 Hazardous Materials**

Hazardous materials consist of substances that by their nature, lack of containment, and reactivity, have the capability for inflicting harm. Hazardous materials poses a threat to health and the environment when improperly managed and can be toxic, corrosive, flammable, explosive, reactive, an irritant, or a strong sensitizer. Hazardous materials substances also include certain infectious agents, radiological materials, oxidizers, oil, used oil, petroleum products, and industrial solid waste substances. Hazardous materials can pose a threat where they are manufactured, stored, transported or used. They are used in almost every manufacturing operation and by retailers, service industries, and homeowners.

A hazardous material accident could occur in Imperial County due to the agricultural economy, proliferation of fuel tanks and transmission facilities, intricate canal system, and the confluence of major surface arteries and rail systems. Although a hazardous material accident can occur almost anywhere, particular regions are more vulnerable. The potential for an accident is increased in regions near roadways that are frequently used for transporting hazardous material, and in regions with agricultural or industrial facilities that use, store, handle, or dispose of hazardous material.

A potential source of hazardous material release is from some of the operations associated with agriculture, such as chemical handling and storage facilities and crop dusting companies. The County Health Services Department, pursuant to California Health and Safety Code Section 25500, maintains a list of hazardous material handlers and/or vendors as well as an inventory of materials that is available to city fire departments.

Hazardous material incidents are one of the most common threats to public health and the environment. Incidents may occur as the result of natural disasters, human error, and/or accident. Hazardous materials incidents typically take three forms:

- Fixed facility incidents
  - o It is reasonably possible to identify and prepare for a fixed site incident, because laws require those facilities to notify state and local authorities about what is being used or produced there.
- Transportation incidents
- Transportation incidents are more difficult to prepare for because it is impossible to know what material(s) could be involved until an accident actually happens.
- Pipeline incidents

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- o Pipelines carry natural gas and petroleum. Breakages in pipelines carry differing amounts of danger, depending on where and how the break occurs, and what is in the pipe.

Hazardous materials are used in the City of Calexico for a variety of purposes including manufacturing, service industries, small businesses, agriculture, medical clinics, schools, and households. Hazardous materials pass through the City of Calexico en route to other destinations via the Interstate/State Highway system, rail, and surface street system. Calexico is linked to other cities in Imperial Valley and to other parts of California by a freeway and a number of highways. Interstate 8 provides for east-west travel which is approximately three miles to the north of the City. Local highways include: State Highway 111, a north-south route from the Mexican border to Brawley, Calipatria and Niland; State Highway 98 runs east-west from Coyote Wells (west of Calexico) to Bonds Corner (east of Calexico) connecting to Interstate 8 at both ends.

One railway line serves the City of Calexico - the Southern Pacific Railroad. This major line connects to the main line in Niland. The main line primarily serves the Los Angeles area. This line is used extensively for agricultural shipments. While train derailment can occur at any time, it is during an earthquake that a derailment and hazardous materials would pose the greatest risk to people and the environment in Calexico.

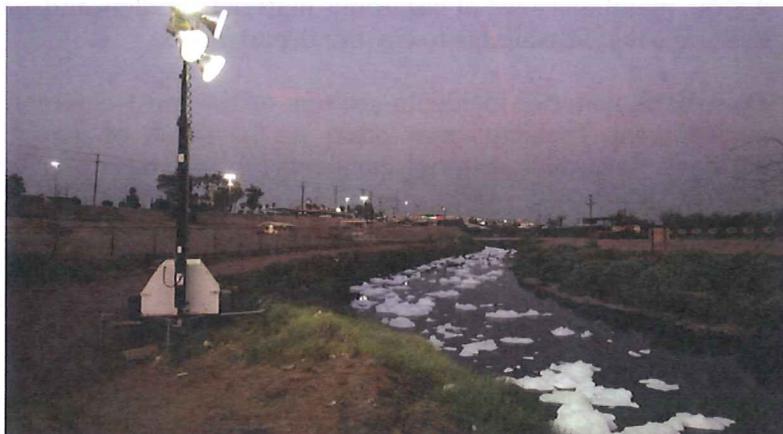
On July 21, 2015, the City Council adopted the *Imperial County Multi-Jurisdictional Hazard Mitigation Plan Update*. The Disaster Mitigation Act of 2000 requires all jurisdictions to be covered by a Pre-Disaster All Hazards Mitigation Plan to be eligible for Federal Emergency Management Agency (FEMA) pre- and post-disaster mitigation funds. Hazards mitigation focuses not only on disaster response and recovery but also on preparedness and hazard mitigation, which enhances economic sustainability, environmental stability and social well-being.

The *Hazard Mitigation Plan* indicates that Calexico has a “high probability” of being affected by a hazardous materials incident. High in this case refers to “80% chance the event will occur.” The impact severity would be “high,” meaning “severe impact”.

### 8.2.8 The New River

In many cities, the presence of a river can be a source of valuable open space, recreational opportunities, or development potential. The New River, however, is a threat to public health and safety.

Despite extensive efforts in the U.S. and Mexico, water quality in the New River remains out of compliance with many U.S. water quality standards. Water pollution levels pose health and quality



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of life concerns in Calexico and the Imperial Valley, as well as being sources of pollution to the Salton Sea. Based on the most recent data available, the water quality impairments of the New River in the U.S. include: low dissolved oxygen, toxicity, pathogens, trash, selenium, sediment/silt, chlordane, DDT, dieldrin, toxaphene, PCBs, HCB, nutrients, mercury, chlorpyrifos, diazinon, copper and zinc.

Health risks created New River pollution include human contact with or the ingestion of the water, unpleasant odors, blowing foam, the consumption of fish and wildlife living in the river. There also is the possibility that the mosquitoes (*Culex trsalis*) that live in the New River are vectors for encephalitis. In addition, the blight associated with the New River represents a missed opportunity to gain needed recreational lands in the City.

## 8.3 RELATED PLANS AND PROGRAMS

There are other agencies with plans and programs related to the purpose of the Safety Element. These plans have been developed and adopted by various levels of government and are administered by agencies with powers to enforce state and local laws. Attachment B describes the related plans and programs.

## 8.4 GOALS, OBJECTIVES, POLICIES AND IMPLEMENTATION MEASURES

Goals, objectives and policies are established for the following:

- Levels of Risk
- Seismic Hazards
- Flooding
- Fire
- Emergency Preparedness
- Hazardous Materials
- The New River

Part 8.4.8 describes Implementation Measures that will promote and achieve a safe environment in Calexico.

### 8.4.1 Levels of Risk

**Goal:** To identify and minimize, to the extent possible or feasible, the risks to persons and property caused by natural and human-induced hazards.

**Objective:** Maintain acceptable risk levels when conducting land use planning.

**Policies:**

- The Scale of Acceptable Risk for New Structures shall continue to be used to determine the type and location of future land use. (Table S-2).
- Land uses should not be subjected to greater risk than the level the scale suggests unless no other alternative exists.
- Require a geologic/geotechnical investigation for all projects whose uses or intensities attain a Level of Acceptable Risk rating that exceeds "Ordinary" levels (Levels 1, 2 & 3—Refer to Table S-2).

# DRAFT SAFETY ELEMENT

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- Require the geologic/geotechnical study to contain a site-specific evaluation of peak horizontal ground acceleration.

## 8.4.2 Seismic Hazards

**Goal:** Reduce the risk of seismic and other geologic hazards in Calexico.

**Objective:** Promote policies and programs that reduce the risk to the community from geologic and seismic hazards.

**Policies:**

- Continually inform the Calexico community of the potential seismic hazards.
- Maintain standards to identify and mitigate seismic hazards.
- Consider design and construction standards that exceed the minimums set forth in the Uniform Building Code (UBC) due to the area's high potential for seismic acceleration.
- Update every three years the City's Building Code based on the Uniform Building Code.
- Require all development to adhere to standards for grading and construction which reduce the potential of seismic hazards.

## 8.4.3 Flooding

**Goal:** Reduce the risk of flood damage in Calexico.

**Objective:** Promote policies and programs that reduce the risk to the day time and night time population from flood hazards.

**Policies:**

- Identify flood hazards areas and provide appropriate land use regulations for areas subject to flooding.
- Require detention basins as a flood control measure where applicable to reduce the risk from flood hazards.
- Promote programs and actions that educate the public about flood hazards and reduce the risk of flood losses.
- Review all new proposed development to ensure that it will not aggravate poor drainage conditions and will, to the extent possible, improve poor drainage conditions.

## 8.4.4 Fire

**Goal:** Reduce the risk to Calexico's day and night time populations from fire and explosions.

**Objective:** Promote policies and programs that reduce the risk to the community from fire and explosions.

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## **Policies:**

- Continue to operate through the Fire Department an education program regarding fire hazards for residential, commercial, industrial and agricultural uses.
- Enforce Building Code requirements that assure adequate fire protection.
- Update every three years the City's Fire Code based on the Uniform Fire Code.
- Continue to enforce the weed abatement program.

## **8.4.5 Emergency Preparedness**

**Goal:** Support emergency preparedness planning and disaster response.

**Objective:** Minimize the potential hazards to public health, safety, and welfare and prevent the loss of life and property damage from natural and human induced phenomena.

## **Policies:**

- Continue to utilize the Reverse 911 telephone system and the County-wide Area Code Emergency Broadcasting System included in the existing emergency preparedness plans to effectively and efficiently notify residents of hazards and emergencies.
- Regularly review evacuation procedures to make sure that in case of an evacuation, the residents of Calexico will be quickly notified and the evacuation will be orderly.
- Develop a blueprint for managing evacuation plans, including allocation of buses, designation and protection of disaster routes, and creation of traffic control contingencies.
- Have the Fire Department periodically review and update the need for additional fire hydrants and work with the Calexico Water Department to ensure that adequate water pressures for fire flows are maintained.
- Ensure through the Water Department that an adequate supply of water will be available in the event of an emergency.
- Conduct through the Water Department regular fire flow tests to identify areas with cracked or damaged water lines.
- Encourage the construction of auxiliary water systems to supplement existing water lines. This will help ensure adequate water flow for fire suppression even if main water lines are damaged. Gravity-fed or generator-operated pumps for swimming pools and tanks can also supplement flow.
- Require the heads and staff of each Department to participate in the maintenance of a City-wide emergency preparedness plan.
- Utilize the IID 24-hour emergency contact list to facilitate the City's rapid response to an emergency such as removal and repair of downed power lines and/or damaged/breeched water facilities.
- Review and identify improvements to the Calexico International Airport facilities and takeoff/landing procedures to reduce the risk associated with airfield operations.
- Continue to participate in the airport land use plan revisions for existing airport facilities and operations, future airports, and airport extensions.
- Implement the City of Calexico Standardized Emergency Management System (SEMS) Operations Plan in case of extraordinary emergency situations, including updates and reviews to keep the information current and responsive to community needs.

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- Update as needed the Building and Safety Department's inventory of unreinforced buildings.
- Work with owners to retrofit unreinforced masonry buildings, as needed.
- Require structural and nonstructural assessment and, when necessary, mitigation, of other types of potentially hazardous buildings that: 1) are undergoing substantial repair or improvements resulting in more than half of the assessed property value, or 2) are considered an element of blight.

## 8.4.6 Hazardous Materials

**Goal:** Reduce the risk to the Calexico's day and night time populations from exposure to hazardous materials and waste.

**Objective:** To ensure the health, safety, and welfare of residents and guests of Calexico through strict regulation and planning for the safe transport, storage and usage of hazardous materials in the Calexico area.

**Policies:**

- Discourage the transport of hazardous materials through residential areas and critical facilities and limit transport through heavily developed areas as much as possible. (See Truck Route designations in the Circulation Element.)
- Prohibit incompatible land uses near sites that use, store or produce hazardous materials.
- Cooperate with the County to implement applicable portions of the *County's Hazardous Waste Management Plan*.

## 8.4.7 The New River

**Goal:** Reduce the risk posed by the current conditions of the New River.

**Objective:** Protect residents from the potential hazards associated with the New River, including restricting access.

**Policies:**

- Cooperate with international, federal, state and regional responsible agencies in projects aimed at cleaning up the New River through the implementation of the *New River Improvement Project Strategic Plan*.
- Continue to restrict access to the river and maintain bilingual signs that warn of the dangers of contact with the water.
- Continue to seek county, state, or federal funds to cover costs incurred by the City for work done to restrict public access to the river or any other measure associated with the river due to its pollution or risk to public safety.
- Prohibit land development near the New River in order to reduce exposure of people to the potential contact with the water, odors, and airborne foam.
- Adopt design set-back of a distance of 50 feet outside the shaded 500-year flood zone areas delineated on the FEMA maps for the New River.

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## 8.4.8 Implementation Measures

### 8.4.8.1 Imperial County Multi-Jurisdiction Hazard Mitigation Plan Update

The City will continue to participate in the planning, implementation and updating of the *Hazard Mitigation Plan*. The Disaster Mitigation Act of 2000 requires all jurisdictions to be covered by a Pre- Disaster All Hazards Mitigation Plan to be eligible for Federal Emergency Management Agency (FEMA) pre and post-disaster mitigation funds.

According to the *Hazard Mitigation Plan*, with its varying topography; mix of urban and rural areas; rapidly growing permanent, transient, and recreational populations, Imperial County is subject to potential negative impacts from a broad range of hazards and threats. There are three broad categories of hazards that threaten the County, namely:

- Natural hazards
- Technological hazards
- Domestic security threats

Natural hazards include:

- Earthquakes
- Floods
- Extreme Weather (thunderstorms/windstorms/sudden heavy rain/hailstorms/tornados/extreme temperatures)
- Wildfire
- Pest Infestation/Non Vectors of Human Diseases
- Naturally Occurring Biological Threats

Technological hazards include:

- Dam Failure
- Hazardous Materials (Hazmat) Incidents

Domestic security threats include:

- Terrorism
- Chemical
- Biological
- Radiological
- Nuclear
- Explosive

The City supports the goals, objectives and strategies of the *Hazard Mitigation Plan* which are described in Attachment C.

### 8.4.8.2 City Codes and Ordinances

The City will implement existing and new codes and ordinances in order to achieve a safe community. The implementation measure will prevent loss of life, and substantial property damage by complying with the most recent Uniform Building Codes, Uniform Mechanical Code, Uniform Fire Code, and the National Electric Code, all of which contain structural requirements

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for existing and new buildings. To protect public safety, all development in Calexico will be subject to these structural codes.

Other codes and ordinances the City will enforce include, but are not limited, to:

- Earthquake Hazard Reduction in Existing Buildings Code
- Uniform Code for the Abatement of Dangerous Buildings
- Flood Damage Prevention Code

### **8.4.8.3 SEMS Multi-hazard Functional Plan**

The City will continue to implement and update as necessary the City's Standardized Emergency Management System (SEMS) Multi-hazard Functional Plan (MHFP) to maximize efforts of emergency service providers (e.g., fire, medical, and law enforcement) and minimize human suffering and property damage during disasters. The City also supports high-level multi-jurisdictional cooperation and communication for emergency planning and management.

### **8.4.8.4 CEQA Review**

The City will continue to depend on the California Environmental Quality Act (CEQA) as a means to identify and mitigate safety hazards prior to project approvals and to enforce the mitigation measures already applied as conditions of approval for development projects. As an example, the City applies the following mitigation measures for potential geologic hazards in its review of proposed development projects.

**MM Geo1:** Prior to the approval of any discretionary action presented to the City of Calexico for any development, a geotechnical investigation shall be conducted by a registered geotechnical engineer that discusses, at least, the following hazards:

1. Liquefaction
2. Subsidence
3. Expansion properties, shrink/swell potential
4. Distance to known fault rupture zones
5. Soil strength
6. Landslide potential

Common mitigation measures associated with minimizing impacts from these hazards include, (1) adherence to basic construction procedures pursuant to the Uniform Building Code, which includes the incorporation of seismic safety-related construction standards; (2) removal and recompaction of soils susceptible to settlement; and (3) reduction or control of erosion by retaining as much vegetation in place as possible throughout the development process; and (4) setbacks from fault zones.

All geotechnical studies shall be submitted to the City of Calexico Building and Safety Department for review and approval.

Mitigation measures recommended by these studies that reduce identified impacts to below a level of significance shall be included as conditions of future project approvals.

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**MM Ge02:** To mitigate any potential impacts associated with erosion for any new development/redevelopment projects adjacent to the New River, drainage canals, or levees, the following design setbacks will be implemented:

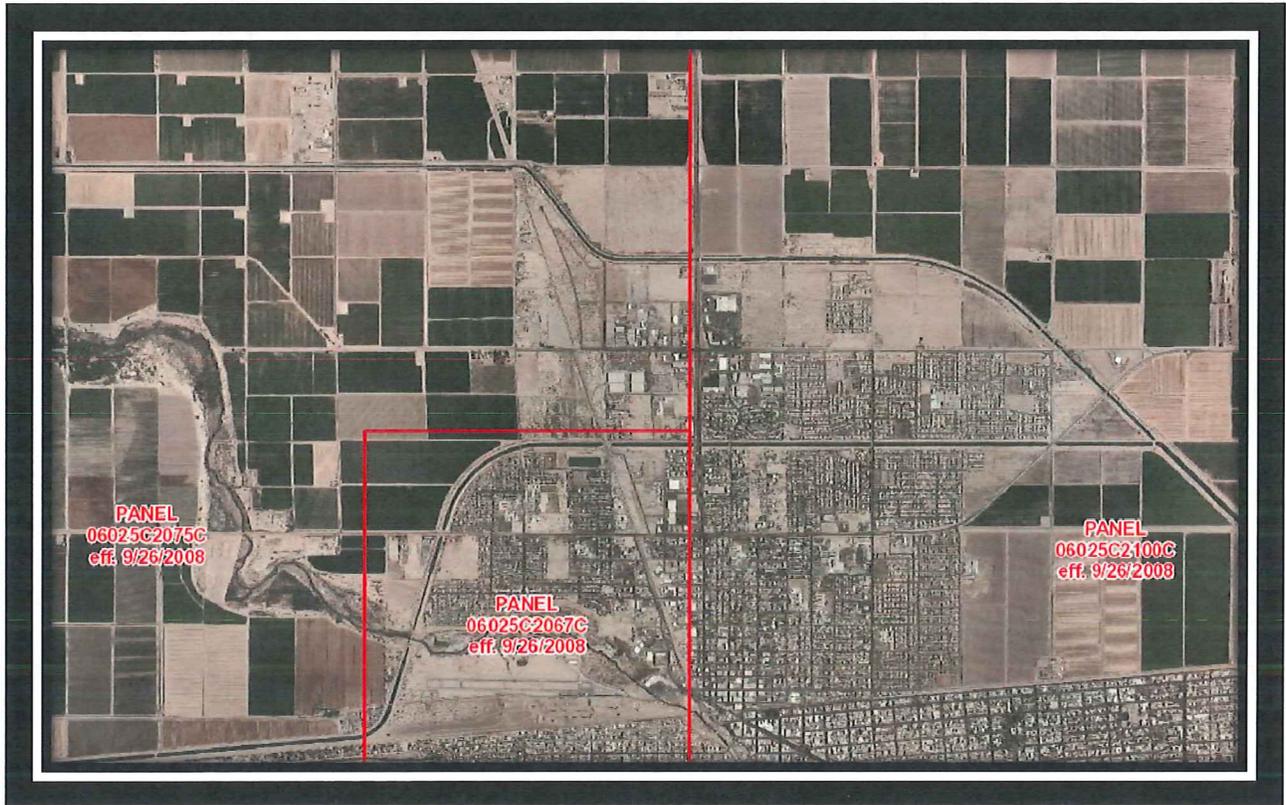
1. A distance of 50 feet outside of the shaded 500-year flood zone areas delineated on the FEMA maps for the New and Alamo Rivers; and
2. A distance of one-half the canal bank height beyond the toe of the slope for all of the levee and canal banks.

**MM Ge03:** To mitigate any potential adverse effects related to use of septic systems in new development, prior to the approval of any discretionary action presented to the City of Calexico, an investigation shall be conducted by a registered geotechnical or soils engineer that addresses the site's suitability for septic systems if such systems are proposed. This investigation shall take into consideration soil properties as well as the extensive tile drain system that currently underlies areas in agricultural land use.

**MM Ge04:** To mitigate any potential adverse effects related to subsidence in new development, prior to the approval of any discretionary action presented to the City of Calexico, an investigation shall be conducted by a registered geotechnical or soils engineer.

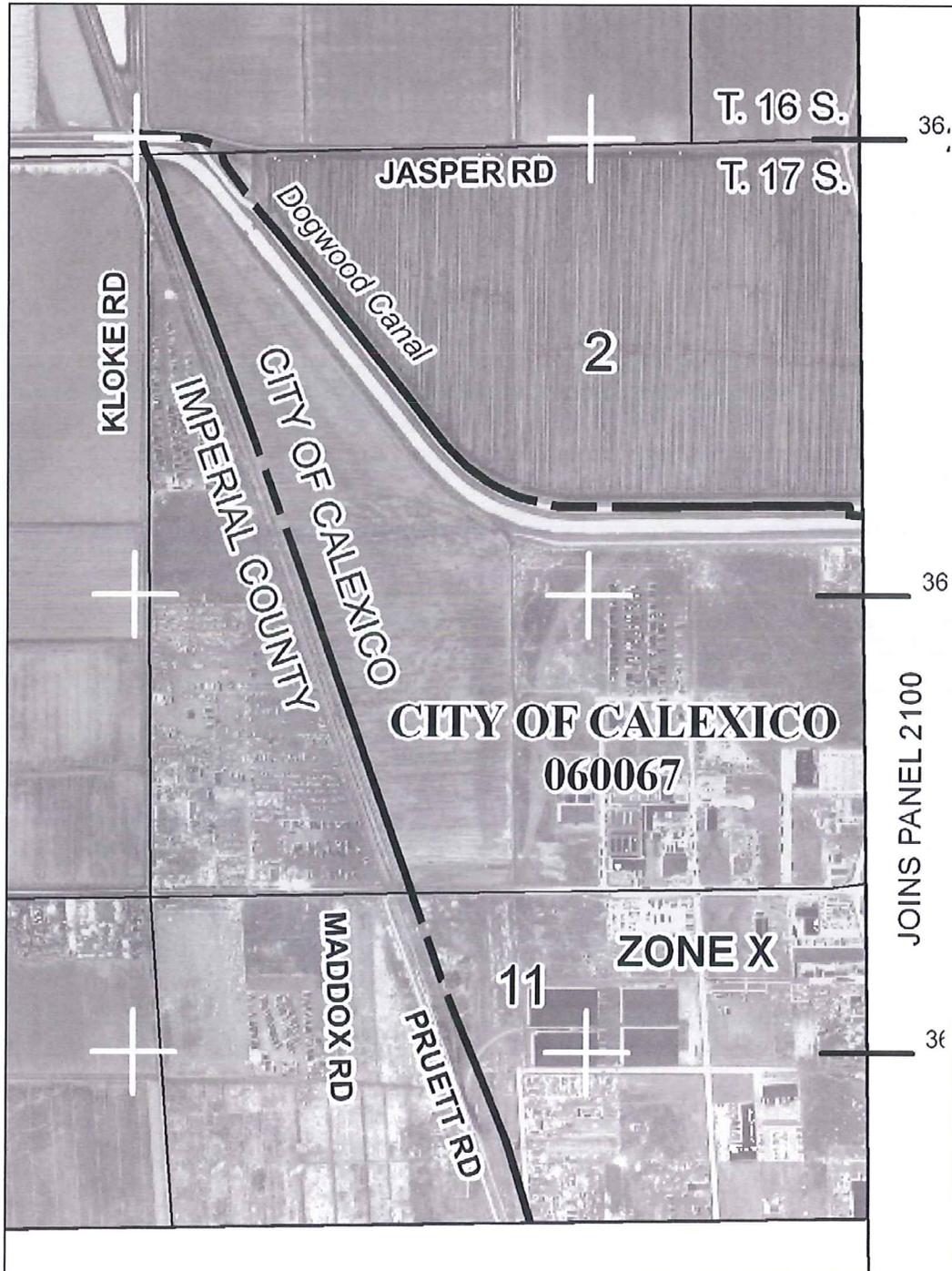
# DRAFT SAFETY ELEMENT

## ATTACHMENT A CITY OF CALEXICO FLOOD ZONES



# DRAFT SAFETY ELEMENT

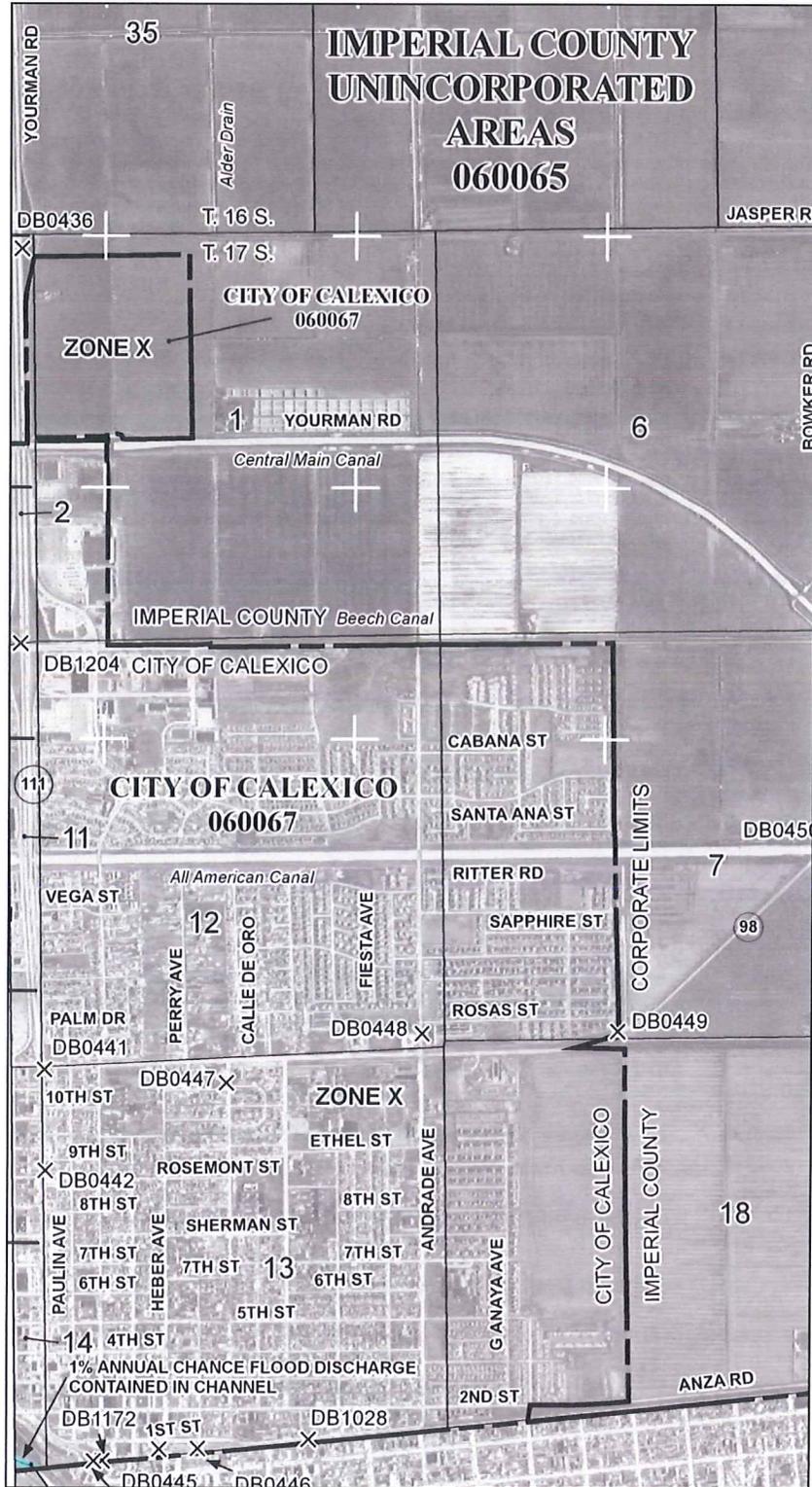
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## Flood Zone Legend

### LEGEND



**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No base flood elevations determined.
- ZONE AE** Base flood elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no base flood elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no base flood elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); base flood elevations determined.



**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



**OTHER FLOOD AREAS**

- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.



**OTHER AREAS**

- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.



**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**



**OTHERWISE PROTECTED AREAS (OPAs)**

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

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## **ATTACHMENT B RELATED PLANS AND PROGRAMS**

### **A. MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN**

On July 21, 2015, the City Council adopted the *Imperial County Multi-Jurisdictional Hazard Mitigation Plan Update*. The planning partners of the County of Imperial, City of Brawley, City of Calexico, City of Calpatria, City of El Centro, City of Holtville, City of Imperial, City of Westmorland, the Imperial Irrigation District and the Imperial County Office of Education (representing all of Imperial County's School Districts) recognize the consequences of disasters and the need to reduce the impacts of natural and human-caused hazards. These planning partners shall be known in the Plan as the Planning Jurisdictions. The elected and appointed officials of the MHMP Planning Jurisdictions have chosen to carefully select mitigation actions in the form of projects and programs that can become long term, cost effective means for reducing the impact of hazards.

### **B. MULTI-AGENCY COOPERATIVE PROGRAMS**

The City's emergency services providers, such as fire and police, are currently cooperating with the coordinated efforts Valley-wide to integrate communication within the Valley and between Imperial Valley and San Diego County. The Calexico Fire Department is a member of the California Master Mutual Aid Agreement and is committed to sending personnel and apparatus in an emergency anywhere in the State. The Department is also a member of the Imperial Valley Hazardous Materials Response Team and is available to respond to hazardous materials emergencies throughout Imperial County. The Department also has a Fire Prevention Bureau headed by the inspector and administers inspections, occupancy permits, and various safety programs throughout the City.

### **C. CALEXICO INTERNATIONAL AIRPORT MASTER PLAN**

The Calexico International Airport is subject to the Calexico International Airport Master Plan, 2001, prepared by the City of Calexico. The plan identifies future improvements for the airport to meet future aviation needs. The plan also addresses land uses surrounding the airport. The type of development occurring in the airport environs impacts the safety of aircraft operations. In the reverse, it also impacts the number of people exposed to aircraft hazards such as airplane crashes. The General Plan reflects the future airport expansion plan and the current/future safety hazards in the Land Use Element.

### **D. THE CALIFORNIA-BAJA CALIFORNIA BORDER MASTER PLAN**

The California-Baja California Border Master Plan is a bi-national comprehensive approach to coordinate planning and projects at Land Points of Entry (LPOE) and transportation infrastructure serving those POEs. It is a partnership between the California Department of Transportation (Caltrans) and the Secretariat of Infrastructure and Urban Development of Baja California. The primary objectives of the Border Master Plan are to increase the understanding of LPOE and transportation planning on both sides of the border and to create a plan for prioritizing and advancing LPOE and related transportation projects.

Since December 2013 the Imperial County Transportation Commission (ICTC) in close coordination with Caltrans and the San Diego Association of Governments (SANDAG), have

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been studying infrastructure needs of pedestrians and bicyclists along all six land ports of entry between California and Baja California.

The goal of this study is to make trips safer, easier, and more comfortable around the six land ports of entry (POEs) to improve the travel experience for people walking or bicycling across the California/Baja California border. The results of the study describe the current conditions at six POEs and provide a list of 96 recommended projects and policies. Design guidelines for bicycle and pedestrian-friendly border crossings were developed. Additionally, projects identified in the study will be considered during the California-Baja California Border Master Plan Update process.

## **E. IMPERIAL COUNTY AIRPORT LAND USE PLAN**

The Calexico International Airport is also subject to the Airport Land Use Compatibility Plan – Imperial County Airports, 1996, prepared by Imperial County Airport Land Use Commission. The plan identifies areas impacted by aircraft operations and includes policies to allow for the continued operation of county airports, while protecting public safety. The City will review its General Plan to ensure consistency when the airport plan is updated.

## **F. CALEXICO CODES AND ORDINANCES**

The City has adopted the following codes:

- Uniform Building Code
- Uniform Mechanical Code
- National Electrical Code
- Uniform Code for the Abatement of Dangerous Buildings
- California Fire Code

All these codes contain structural requirements for existing and new buildings. The codes are designed to ensure structural integrity during seismic and other hazardous events to prevent personal injury, loss of life, and substantial property damage. To protect public safety, development in Calexico is subject to these codes. Calexico has also adopted a Flood Damage Prevention code and an Earthquake Hazard Reduction in Existing Building Code to address safety issues directly associated with flooding and earthquakes.

## **G. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) AND GUIDELINES**

The California Environmental Quality Act was adopted by the State legislature to provide public disclosure of the substantial adverse environmental effects of proposed development within the State. The CEQA Statutes (Public Resources Code Section 21000, et seq.) and Guidelines (California Code of Regulations Title 14, Chapter 3, Section 15000, et seq.) include disclosure of and mitigation for safety hazards as environmental impacts. Continued implementation of CEQA will ensure that City officials and the general public have information describing and mitigating potentially significant safety impacts associated with discretionary private and public development projects.

## **H. SEISMIC HAZARDS MAPPING ACT**

Pursuant to the Seismic Hazards Mapping Act, the State Geologist through the California Geological Survey unit of the Department of Conservation compiles maps identifying seismic

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hazard zones throughout the State. Development in seismic hazard areas is subject to policies and criteria established by the State Mining and Geology Board. Approval of development located within a seismic hazard area requires the preparation of a geotechnical report and local agency consideration of the policies and criteria set forth by the State (Public Resources Code Section 2690 et seq.). The City requires geotechnical reports for development throughout the City due to the high risk for seismic activity in the area.

## **I. ALQUIST-PRIOLO EARTHQUAKE FAULT ZONING ACT**

The Alquist-Priolo Earthquake Fault Zoning Act requires the State Geologist to identify earthquake fault zones along traces of recently and potentially active major faults. Its main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The Alquist-Priolo Zones are usually one-quarter mile or less in width. Proposed development plans within these fault zones must be accompanied by a geotechnical report prepared by a geologist describing the likelihood of surface rupture and other seismically induced hazards.

## **J. COBEY-ALQUIST FLOODPLAIN MANAGEMENT ACT**

The Cobey-Alquist Floodplain Management Act encourages local governments to plan, adopt, and enforce land use regulations for floodplain management in order to protect people and property from flooding hazards. This act also identifies requirements which jurisdictions must meet in order to receive State and financial assistance for flood control.

## **K. NATIONAL FLOOD INSURANCE ADMINISTRATION PROGRAM (NFIP)**

The NFIP which is administered by the Federal Emergency Management Agency (FEMA) provides federal flood insurance and federally financed loans for property owners in flood prone areas. To qualify for federal flood insurance and assistance, the City must identify flood hazard areas (Figure S-2) and implement a system of protective controls. The *Safety Element, Land Use Element*, and Title 15, Chapter 15.54 of the Municipal Code fulfill these requirements.

## **L. COUNTY OF IMPERIAL GENERAL PLAN**

The County General Plan identifies potential hazards that could impact persons and property in the unincorporated portion of the City's planning area. The City cooperates with the County in emergency situations affecting both jurisdictions and has mutual aid arrangements. Until annexation into the City occurs, unincorporated areas are subject to the County General Plan and other policies addressing safety.

## **M. CITY OF CALEXICO EMERGENCY DISASTER PLAN**

The City of Calexico has adopted a Standardized Emergency Management System (SEMS) Multi Hazard Functional Emergency Operations Plan (SEMS Operations Plan). It provides guidance for the City to respond to extraordinary emergency situations associated with natural disasters, manmade disasters, technological incidents, and war emergency operations within the City. It utilizes the Reverse 911 system and the County Wide Area Code Emergency Broadcasting System. The City also cooperates with the County in emergency situations affecting both jurisdictions and has mutual aid arrangements with the County. The City's SEMS Operations Plan allows it to be prepared to be part of the statewide emergency management system.

# DRAFT SAFETY ELEMENT

## ATTACHMENT C IMPERIAL COUNTY MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN GOALS, OBJECTIVES, AND MITIGATION STRATEGIES

The Imperial County Hazard Mitigation Planning Committee developed the following goals and objectives based on the risk assessment studies and selected those that were determined to be of greatest benefit in hazard reduction to the County. The goals, objectives and strategies for Imperial County and the participating jurisdictions are as follows:

### Earthquake

<b>Goal 1</b>	<b>Earthquake Warning System</b>
Objective 1	To mitigate access issues and improve survivability
<b>Goal 2</b>	<b>Redundant Communications</b>
Objective 1	To mitigate access issues and improve survivability
<b>Goal 3</b>	<b>Additional Back-up Generators</b>
Objective 1	To mitigate access issues and improve survivability
<b>Goal 4</b>	<b>Retrofit Bridges</b>
Objective 1	To mitigate access issues and improve survivability
Objective 2	To minimize disruption to transportation routes when bridges are affected
Objective 3	To minimize the additional cost of fuel for school districts when detour routes are implemented
<b>Goal 5</b>	<b>Upgrade Water Tanks</b>
Objective 1	To improve survivability
<b>Goal 6</b>	<b>Upgrade/Retrofit Critical Facilities (includes URM)</b>
Objective 1	Bring critical facilities up to current building standards
Objective 2	To mitigate access issues and improve survivability
<b>Goal 7</b>	<b>Secure/Relocate Transformers</b>
Objective 1	To mitigate access issues and improve survivability
<b>Goal 8</b>	<b>Erosion Control</b>
Objective 1	To mitigate access issues and improve survivability
<b>Goal 9</b>	<b>Develop a Plan for Supporting the Prison</b>
Objective	To improve survivability

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## Flooding

<b>Goal 1</b>	<b>Drainage Improvements</b>
Objective 1	Increase capacity of storm drains (West and North End)
Objective 3	Minimize the impact of a flood event
<b>Goal 2</b>	<b>Road Improvements</b>
Objective 1	To mitigate access issues and improve survivability
<b>Goal 3</b>	<b>Develop a Master Drainage Plan</b>
Objective 1	To mitigate access issues and improve survivability
Objective 2	Minimize the impact of a flood event

## Extreme Weather

<b>Goal 1</b>	<b>Public Education</b>
Objective 1	Improve public education regarding survivability and continuing functionality during a weather event
Objective 2	Inform public on Heat Centers
Objective 3	Inform public on protection of animals
<b>Goal 2</b>	<b>Enhancement of Power Infrastructure</b>
Objective 1	To mitigate access issues and improve survivability
<b>Goal 3</b>	<b>Drought Mitigation</b>
Objective 1	Groundwater storage
Objective 2	To improve public education regarding survivability and continuing functionality during a weather event
<b>Goal 4</b>	<b>Storm Water Management Plan</b>
Objective 1	To minimize the impact of a flood event
Objective 2	To improve public education regarding survivability and continuing functionality during a weather event

## Wildfire

<b>Goal 1</b>	<b>Vegetative Maintenance and Cleaning</b>
Objective 1	Reduce impact of wildland fire to infrastructures
Objective 2	To mitigate access issues and improve survivability

## Pest Infestation/Non Vectors of Human Diseases

<b>Goal 1</b>	<b>Increased Monitoring of the Quagga Mussel</b>
Objective 1	Deter possibility of infestation
<b>Goal 2</b>	<b>Increased Monitoring of the Hydrilla Plant</b>
Objective 1	Monitor growth and maintain the Hydrilla plant

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## Naturally Occurring Biological Threats

<b>Goal 1</b>	<b>Revise the Influenza Virus Pandemic Plan</b>
Objective 1	Increase detection, preparedness and responsiveness to potential biological threats
<b>Goal 2</b>	<b>Work with County Agriculture Department to Ensure Adequate/ Increased Testing for Specific Biohazards</b>
Objective 1	Increase detection, preparedness and responsiveness to potential biological threats

## Dam Failure

<b>Goal 1</b>	<b>Develop an Evacuation Plan</b>
Objective 1	Improve public notification and evacuation programs to mitigate access issues and increase survivability

## Hazardous Materials

<b>Goal 1</b>	<b>Increase/Enhance Training for Major HazMat Incidents</b>
Objective 1	Educate individuals to prepare for a potential rail incident at transportation off-loading/storage facility
Objective 2	To minimize the impact of a hazardous materials incident
<b>Goal 2</b>	<b>Enhance Training for All First Responders</b>
Objective 1	To minimize the impact of a hazardous materials incident mitigate and improve survivability
<b>Goal 3</b>	<b>Train Individuals with High-Pressure Gas Lines</b>
Objective 1	Improve public notification and evacuation programs to mitigate access issues and increase survivability
<b>Goal 4</b>	<b>Increase Training for a Major HazMat Incident at the Tank Farm</b>
Objective 1	To minimize the impact of a hazardous materials incident

## Terrorism

<b>Goal 1</b>	<b>Increase Public Education and Awareness</b>
Objective 1	Improve public education regarding awareness and survivability
Objective 2	Increase deterrence and prevention measures
<b>Goal 2</b>	<b>Protection of Hospitals' Central Plant Operations</b>
Objective 1	Increase deterrence and prevention measures
<b>Goal 3</b>	<b>Secure Public Facilities and Resources</b>
Objective 1	Increase deterrence and prevention measures