



Delta Annex Chapter 1 City of Isleton

1.1 Introduction

This Annex details the hazard mitigation planning elements specific to the City of Isleton, a previously participating jurisdiction to the 2021 Sacramento County Local Hazard Mitigation Plan (LHMP) Update. This Annex is not intended to be a standalone document but appends to and supplements the information contained in the Base Plan document. As such, all sections of the Base Plan, including the planning process and other procedural requirements apply to and were met by the City. This Annex provides additional information specific to the City of Isleton, with a focus on providing additional details on the planning process, risk assessment, and mitigation strategy for this jurisdiction.

1.2 Planning Process

As described above, the City of Isleton followed the planning process detailed in Chapter 3 of the Base Plan. In addition to providing representation on the Sacramento County Hazard Mitigation Planning Committee (HMPC), the City formulated their own internal planning team to support the broader planning process requirements. Internal planning participants, their positions, and how they participated in the planning process are shown in Table 1-1. Additional details on Plan participation and City representatives are included in Appendix A. **WHO PARTICIPATED AND HOW?**

Table 1-1 City of Isleton – Internal Planning Team

Name	Position/Title	How Participated

Coordination with other community planning efforts is paramount to the successful implementation of this LHMP Update. This section provides information on how the City integrated the previously FEMA-approved 2021 LHMP into existing planning mechanisms and programs. Specifically, the City incorporated into or implemented the 2021 LHMP through other plans and programs shown in Table 1-2. **FILL OUT TABLE - IF THE CITY DID NOT INCORPORATE INTO ANY EXISTING PLANNING MECHANISMS, PLEASE EXPLAIN.**

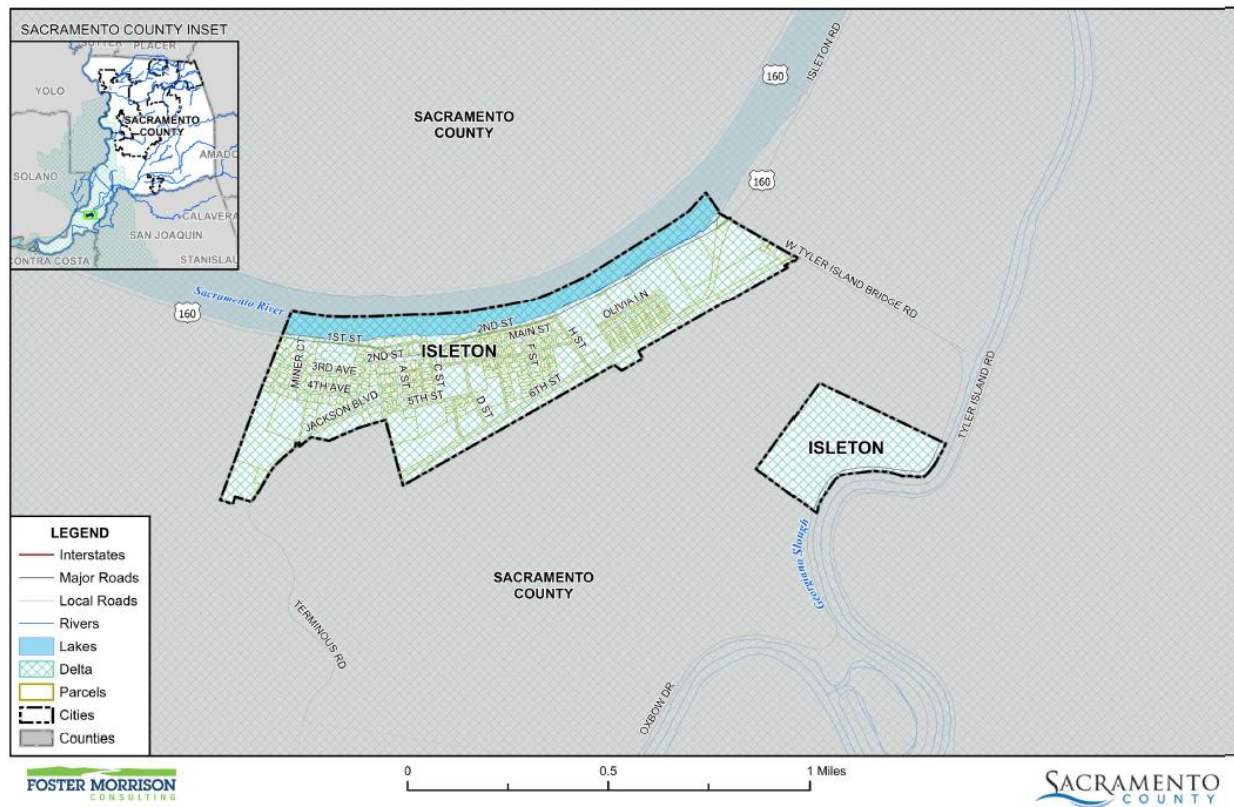
Table 1-2 2021 LHMP Incorporation

Planning Mechanism 2021 LHMP Was Incorporated/Implemented In.	Details: How was it incorporated?

1.3 Community Profile

The community profile for the City of Isleton is detailed in the following sections. Figure 1-1 displays a City map and the location of City of Isleton within Sacramento County.

Figure 1-1 City of Isleton



Data Source: Sacramento County, Cal-Atlas; Map Date: 1/30/2026.

1.3.1. Geography and Climate

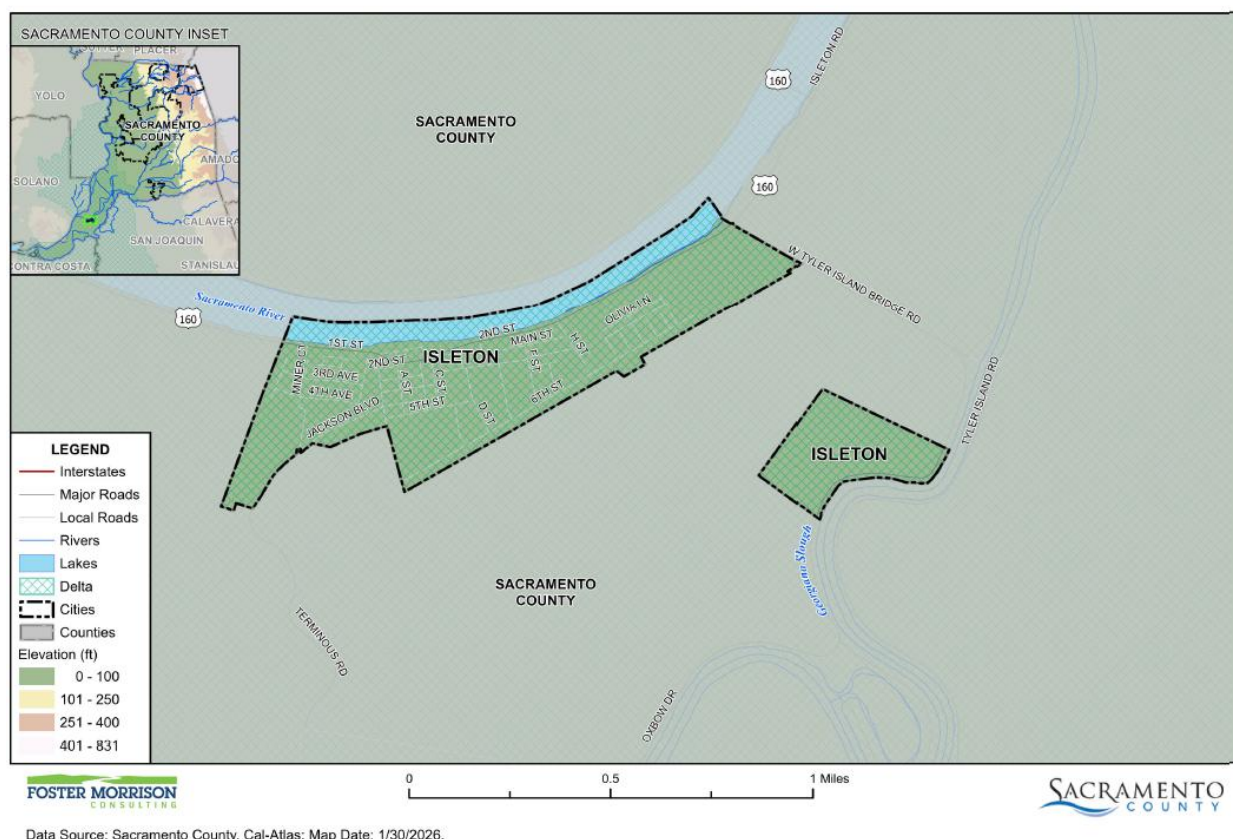
The City of Isleton is located in the southwestern corner of Sacramento County in the Sacramento- San Joaquin Delta (Delta), adjacent to the Sacramento River. Once a great marsh, the Delta now is a network of channels and sunken “islands” that cover—together with Suisun Marsh—about 1,300 square miles. These islands and channels have been built over with the infrastructure of a 21st century economy: water supply conduits; major arteries of the state’s electrical grid; natural gas fields, storage facilities, and pipelines; highways and railways; and shipping channels, all surrounded by an increasingly urban

landscape. Water from the vast Delta watershed, spanning over 45,000 square miles (30 million acres), fuels both local economies and those in export areas hundreds of miles away.

According to the United States Census Bureau, the City has a total area of 0.5 square miles, of which, 0.4 square miles of it is land and 0.05 square miles of it is water. According to the Köppen Climate Classification system, Isleton has a warm-summer Mediterranean climate.

The City sits just above sea level. This can be seen in Figure 1-2.

Figure 1-2 City of Isleton – Elevations



1.3.2. History

The small town on Isleton is located in southern Sacramento County in the Delta Region along the banks of the Sacramento River. The Delta is a land of rivers, agriculture, boating, fishing, and rich history. Isleton was once referred to as the “Little Paris on the Delta.”

Josiah Pool founded Isleton in 1874. Isleton, like many other communities in Sacramento County, benefited from gold fever. Its location on the river brought commerce and trade since the river was the primary source of transport. Improving the waterways for deeper channels that would permit year round travel brought about levee construction. The levees remain though the town has since dwindled from its boom days.

Isleton’s resident population is currently 820. The town hosts several festivals, including the Spam Contest, which originated as a direct result of the floods of 1996. Displaced families during the flood were given shelter at the Hotel Del Rio, owned by Ralph and Charli Hand. When people visited their homes, they remarked that the labels on the Spam cans were the only labels that survived. Charli decided to make some fun of it and the Spam Contest was created. Contestants cook Spam, carve Spam, dress up in Spam costumes and even appoint a “Captain Spam.”

1.3.3. Economy and Tax Base

US Census estimates show economic characteristics for the City of Isleton. These are shown in Table 1-3 and Table 1-4. Mean household income in the City was \$69,188. Median household income in the City was \$59,250.

Table 1-3 City of Isleton – Civilian Employed Population 16 years and Over

Industry	Estimated Employment	Percent
Agriculture, forestry, fishing and hunting, and mining	13	5.2%
Construction	38	15.3%
Manufacturing	20	8.1%
Wholesale trade	0	0.0%
Retail trade	15	6.0%
Transportation and warehousing, and utilities	12	4.8%
Information	0	0.0%
Finance and insurance, and real estate and rental and leasing	15	6.0%
Professional, scientific, and management, and administrative and waste management services	31	12.5%
Educational services, and health care and social assistance	50	20.2%
Arts, entertainment, and recreation, and accommodation and food services	45	18.1%
Other services, except public administration	0	0.0%
Public administration	9	3.6%

Source: US Census Bureau American Community Survey 2023 Estimates

Table 1-4 City of Isleton – Income and Benefits

Income Bracket	Percent
<\$10,000	5.8%
\$10,000 – \$14,999	10.5%
\$15,000 - \$24,999	4.7%
\$25,000 – \$34,999	10.5%
\$35,000 – \$49,999	11.3%
\$50,000 – \$74,999	13.2%
\$75,000 – \$99,999	8.6%

Income Bracket	Percent
\$100,000 – \$149,999	35.4%
\$150,000 – \$199,999	0.0%
\$200,000 or more	0.0%

Source: US Census Bureau American Community Survey 2023 Estimates

The City has a varied tax base. Tax base information is tracked and maintained by the Sacramento County Assessor’s Office. The following tables show the tax base for the City. Tax base information is tracked and maintained by the Sacramento County Assessor’s Office. The following table show the tax base for the City. Table 1-5 shows the secured real property value for the City (along with the other cities in the County) for the 2024-2025 and 2025-2026 tax years.

Table 1-5 Local Assessment Roll Totals for the City (and other County jurisdictions) for 2024/2025 and 2025/2026

Jurisdiction	2025-26	2024-25	Net Increase	% Increase
Citrus Heights	10,025,689,554	9,655,026,938	370,662,616	4%
Elk Grove	30,447,141,962	28,732,989,483	1,714,152,479	6%
Folsom	21,947,218,449	20,668,487,354	1,278,731,095	6%
Galt	3,447,832,371	3,232,113,014	215,719,357	7%
Isleton	90,177,374	86,380,870	3,796,504	4%
Rancho Cordova	14,722,242,063	13,444,934,790	1,277,307,273	10%
Sacramento City	78,585,412,259	75,396,324,743	3,189,087,516	4%
Unincorporated Area	86,211,221,031	81,920,304,075	4,290,916,956	5%
Totals	245,476,935,063	233,136,561,267	12,340,373,796	5%

Source: Sacramento County Assessor’s Office – 2025 Assessor’s Annual Report

1.4 Risk Assessment

As defined by FEMA, risk is a combination of hazard, vulnerability, and exposure. “It is the impact that a hazard would have on people, services, facilities, and structures in a community and refers to the likelihood of a hazard event resulting in an adverse condition that causes injury or damage.”

The City of Isleton risk assessment identifies and profiles relevant hazards and assesses the exposure of lives, property, infrastructure, and the environment to these hazards. The process allows for a better understanding of the City’s potential risk and vulnerability to hazards and provides a framework for developing and prioritizing mitigation actions to reduce risk from future hazard events.

Building on the Community Profile above, a risk assessment was performed for the City utilizing the existing City boundaries. This includes the following sections:

- 1.4.1 Assets Inventory and Growth and Development Trends
- 1.4.2 Hazard Identification
- 1.4.3 Hazard Profiles and Vulnerability to Specific Hazards

1.4.1. Assets Inventory and Growth and Development Trends

This section provides an inventory of the City of Isleton’s total assets potentially at risk to hazards and an overview of growth and development trends. This section is broken into two parts:

- **Asset Inventory** – The assets inventory identifies the City of Isleton’s total assets, including the people and populations; structures; critical facilities and infrastructure; community lifelines; natural, historic, and cultural resources; and economic assets and community activities of value. This data is not hazard specific, but is representative of total assets within the City, potentially at risk to identified hazards as discussed in Section 1.4.3 Hazard Profiles and Vulnerability to Specific Hazards.
- **Growth and Development Trends** – A discussion of growth and development trends in the City, both current and future, is presented.

Assets Inventory

The City’s asset inventory is detailed in the following sections:

- People and Populations
- Structures
- Critical Facilities and Infrastructure
- Community Lifelines
- Natural, Historic, and Cultural Resources
- Economic Assets and Community Activities of Value

A discussion of each of these assets follows and serves as the template for the asset discussion for each hazard in Section 1.4.3.

People and Populations

The most important asset within any community are the people and populations that reside in the community. This section includes an inventory of past and current populations of the City, and also discusses vulnerable populations and underserved communities as a subsection of people and populations located within the City and potentially at risk to hazards. Information from the City, US Census Bureau, California Department of Finance, and other sources as detailed below form the basis of this discussion.

Historic Population Trends and Current Population

Population growth can increase the number of people living in hazard prone areas. The California Department of Finance reported that the City of Isleton has 764 residents, as of January 1, 2025. The City of Isleton has seen growth rates as shown in Table 1-6. As shown, the City has been shrinking in size since 1970.

Table 1-6 City of Isleton – Population Changes Since 1950

Year	Population	Change	% Change
1970	909	–	–

Year	Population	Change	% Change
1980	910	1	0.1%
1990	850	-60	-6.6%
2000	828	-22	-2.6%
2010	804	-24	-2.9%
2020	828	24	2.9%
2025	764	-64	-7.7%

Source: US Census Bureau, California Department of Finance (2025)

Underserved and Vulnerable Populations and Disadvantaged Communities

The City has a socially and economically diverse community, and many residents that are socially or economically disadvantaged or vulnerable due to varying reasons reside within the City. The City and surrounding County are no strangers to large natural disasters which have had a direct impact on the populations of the area. Thus, it is important to consider the potential effects of hazard events and disasters on these more vulnerable populations. Underserved and vulnerable populations and disadvantaged communities in the City are discussed by the following sources:

- US Center for Disease Control (CDC) Social Vulnerability Index
- California Department of Water Resources (CA DWR) Special Populations and Disadvantaged Community Mapping
- City Planning Team Input

CDC Social Vulnerability Index

Every community must prepare for and respond to a hazard event, including the range of natural hazards addressed in this Plan, from severe weather extremes to large potentially catastrophic events such as floods or wildfires. A number of factors, including poverty, lack of access to transportation, and crowded housing may weaken a community's ability to prevent human suffering and financial loss in a disaster. These factors are known as social vulnerability.

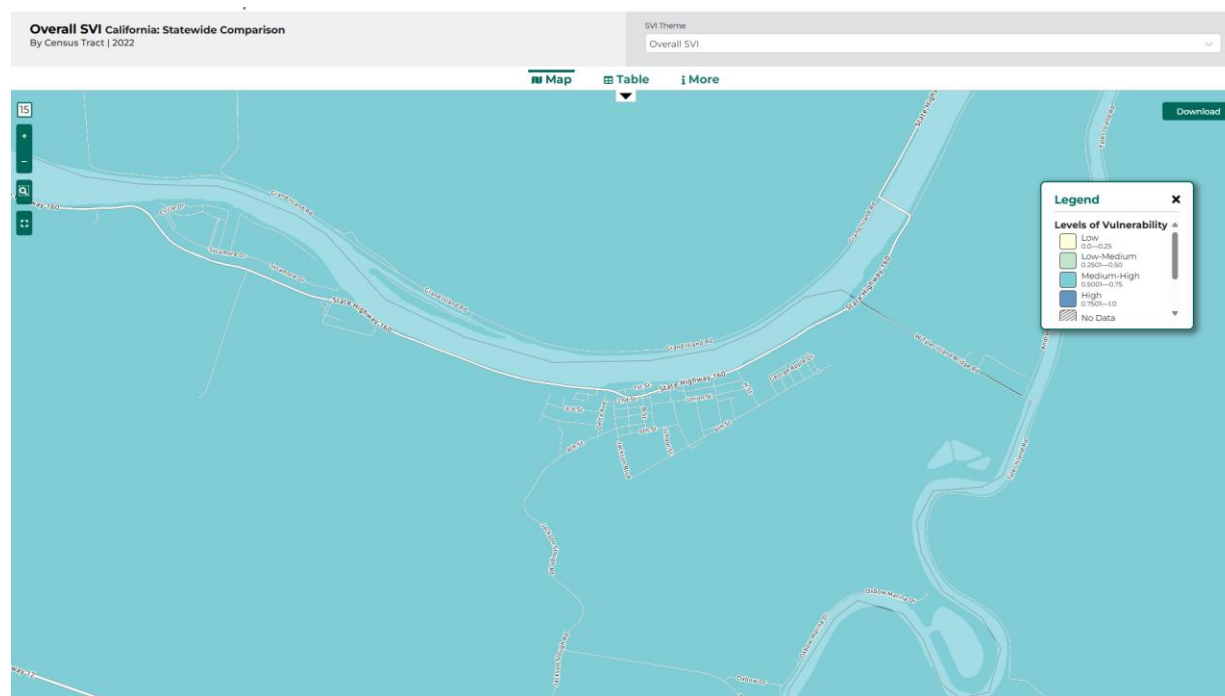
Social vulnerability refers to the potential negative effects on communities caused by external stresses on human health. Such stresses include natural or human-caused disasters, or disease outbreaks. Reducing social vulnerability can decrease both human suffering and economic loss. The Agency for Toxic Substances and Disease Registry (ATSDR) Geospatial Research, Analysis & Services Program (GRASP) created databases to help emergency response planners and public health officials identify and map communities that will most likely need support before, during, and after a hazardous event. The CDC used these databases to create the CDC Social Vulnerability Index (CDC SVI), which uses 15 U.S. census variables to help local officials identify communities that may need additional support before, during, or after disasters.

CDC SVI uses U.S. Census data to determine the social vulnerability of every census tract. Census tracts are subdivisions of counties for which the Census collects statistical data. The CDC SVI ranks each tract on 15 social factors, including poverty, lack of vehicle access, and crowded housing, and groups them into

four related themes. Each tract receives a separate ranking for each of the four themes, as well as an overall ranking. Maps of the four themes for the City are shown in the figures below.

The overall SVI map is shown in Figure 1-3; the socioeconomic SVI for the census tracts in and around the City are shown in Figure 1-4; the household composition SVI is shown in Figure 1-5; the minority and language SVI is shown in Figure 1-6; and the housing and transportation SVI is shown in Figure 1-7. Overall, the maps indicate that, in general, the City sees little change in social vulnerability regardless of location.

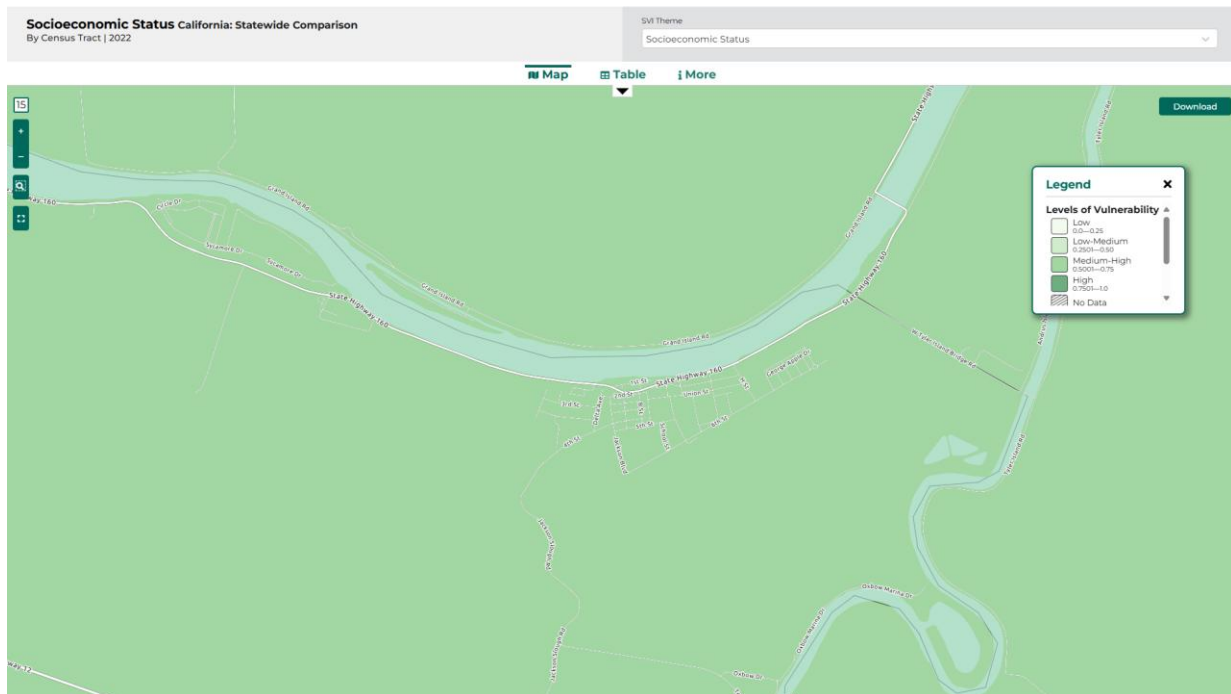
Figure 1-3 City of Isleton – Overall Social Vulnerability



Source: CDC Social Vulnerability Index – map retrieved 9/22/2025

Level of Vulnerability Rating: **Yellow** – Low; **Green** – Low/Medium; **Aqua** – Medium/High; **Blue** – High; **Grey Hatched** – No Data; **Grey** – Not Available

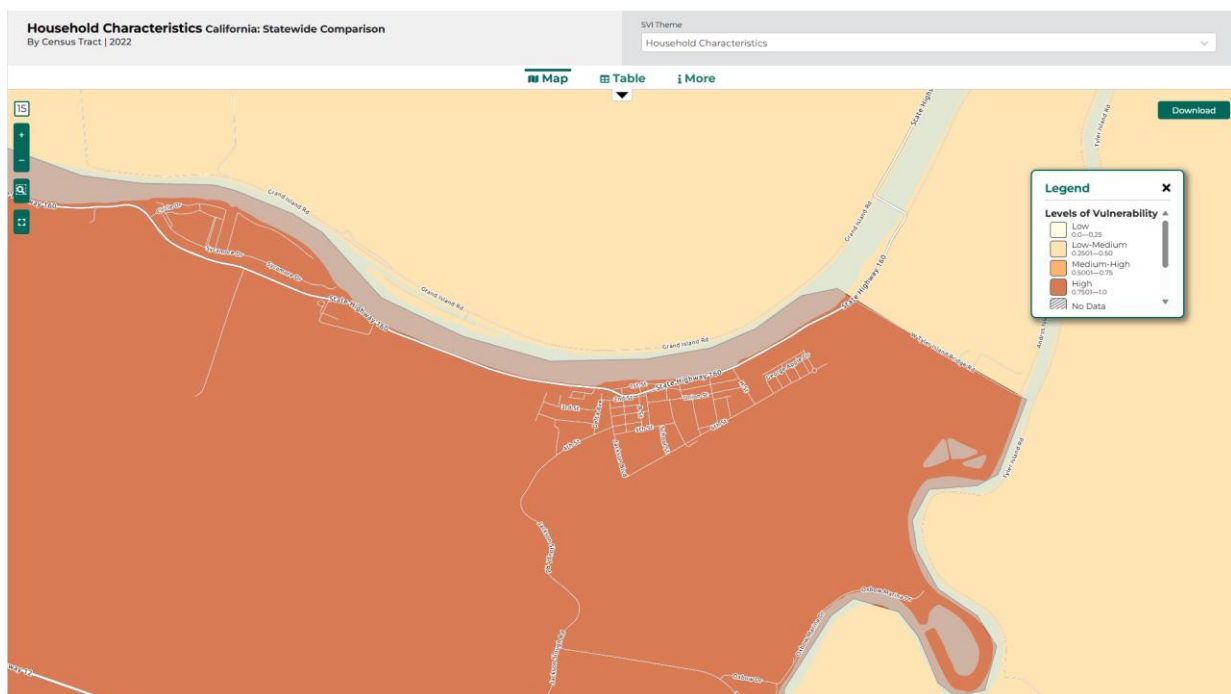
Figure 1-4 City of Isleton – Socioeconomic Status Vulnerability



Source: CDC Social Vulnerability Index – map retrieved 9/22/2025

Level of Vulnerability Rating: **Faint Green** – Low; **Light Green** – Low/Medium; **Green** – Medium/High; **Dark Green** – High; **Grey Hatched** – No Data; **Grey** – Not Available

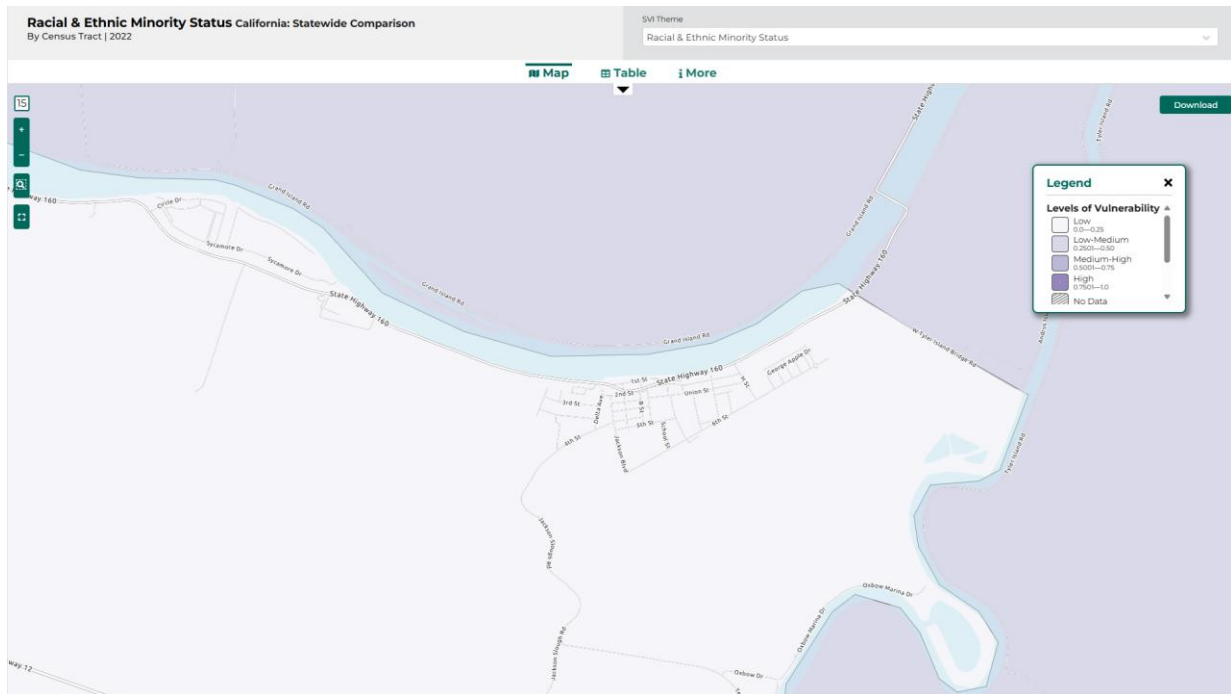
Figure 1-5 City of Isleton – Household Characteristics



Source: CDC Social Vulnerability Index – map retrieved 9/22/2025

Level of Vulnerability Rating: **Faint Orange** – Low; **Light Orange** – Low/Medium; **Orange** – Medium/High; **Dark Orange** – High; **Grey Hatched** – No Data; **Grey** – Not Available

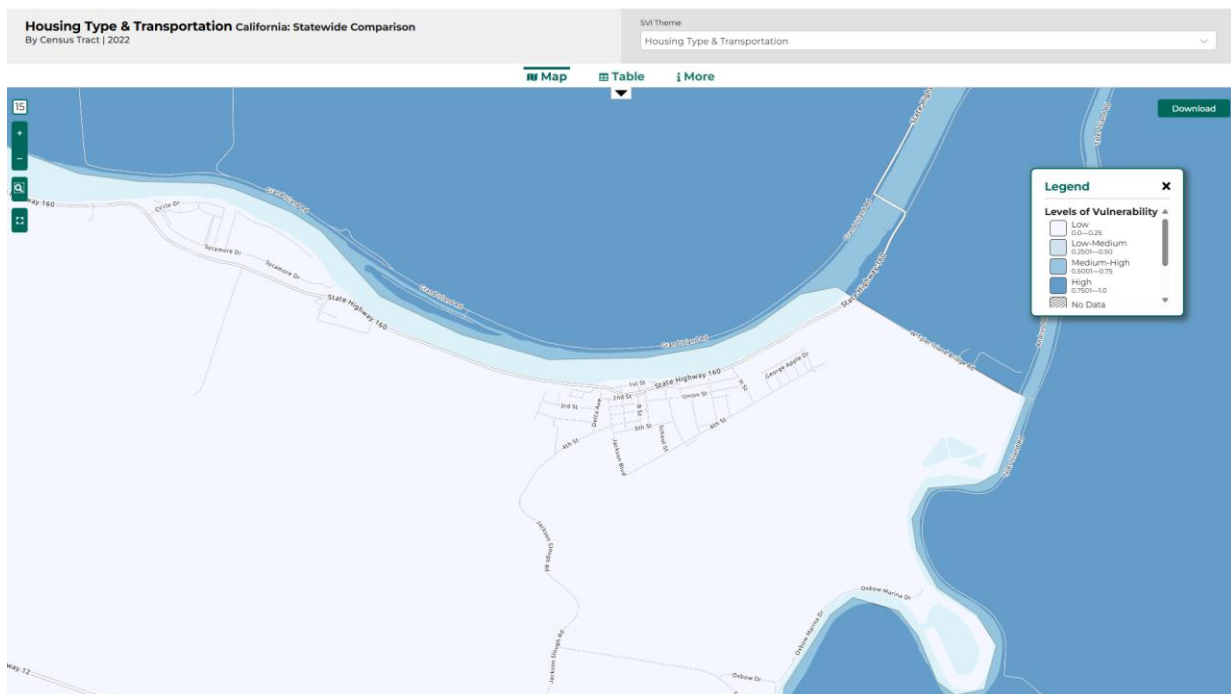
Figure 1-6 City of Isleton – Racial and Ethnic Minority Status



Source: CDC Social Vulnerability Index – map retrieved 9/22/2025

Level of Vulnerability Rating: **Faint Purple** – Low; **Light Purple** – Low/Medium; **Purple** – Medium/High; **Dark Purple** – High; **Grey Hatched** – No Data; **Grey** – Not Available

Figure 1-7 City of Isleton – Housing Type and Transportation



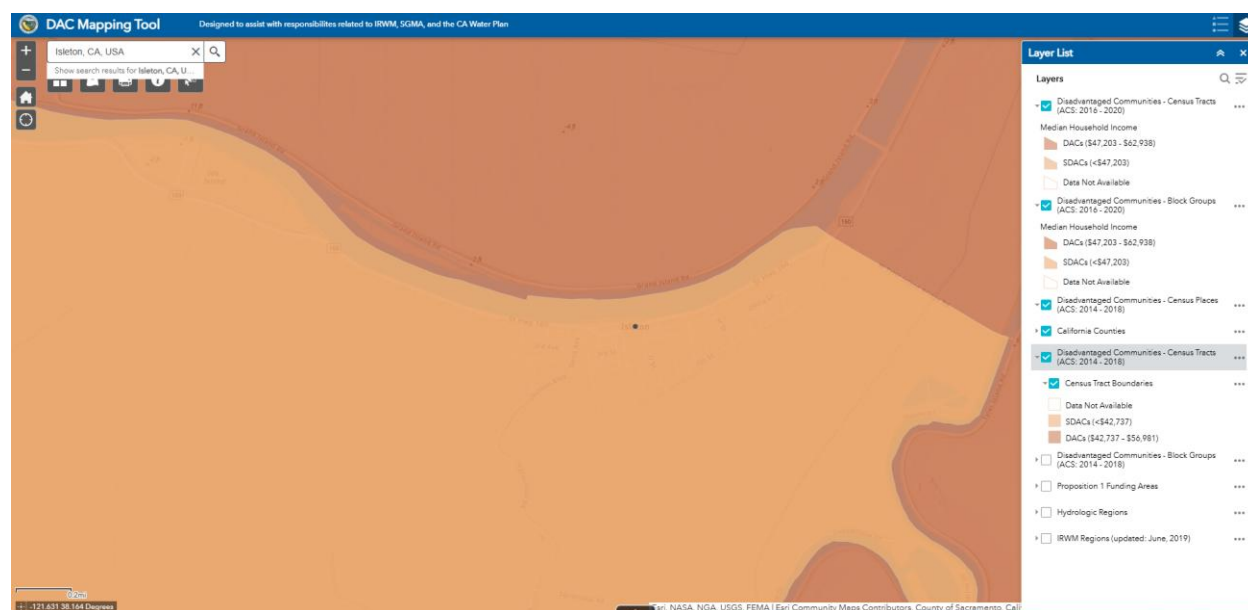
Source: CDC Social Vulnerability Index – map retrieved 9/22/2025

Level of Vulnerability Rating: **Faint Blue** – Low; **Light Blue** – Low/Medium; **Blue** – Medium/High; **Dark Blue** – High; **Grey Hatched** – No Data; **Grey** – Not Available

California DWR Disadvantaged Community Mapping Tool

The State of California’s Proposition 1 Disadvantaged Community (DAC) Involvement Program is designated to ensure the involvement of DACs as well as Economically Distressed Areas and Underrepresented Communities, which DWR collectively refers to as DACs. The Cal DWR definition for a Disadvantaged Community is a community with an annual median household income (MHI) that is less than 80% of the Statewide annual MHI (PRC Section 75005(g)), and those census geographies with an annual MHI less than 60% of the Statewide annual MHI are considered “Severely Disadvantaged Communities”. Those areas in the City considered disadvantaged are shown in Figure 1-8. As shown, much of the City falls in these DAC areas.

Figure 1-8 City of Isleton – Disadvantaged Areas



Source: Cal DWR DAC Mapping Tool – retrieved 9/22/2025

City Planning Team Input

The HMPC provided additional local input on the vulnerable and underserved populations in the City. This is included in the sections below.

Under the State guidelines the City is considered a low – income community. Under SACOG’s environmental justice definition the city falls into the Disadvantage Census tract area. The City has 19.1% persons in poverty, 18.2% person without health insurance, the median male income is \$31,063, the median female income is \$25,300, and the median household income is \$36,875. These populations abilities to meet the fiscal demands of hazards are restricted.

City of Isleton 2021-2029 Housing Element

The City Planning Team noted that the Isleton 2021-2029 Housing Element discusses special populations in the City. Unique elements from the City’s Housing Element are included here. Discussions for seniors,

those with disabilities, people experiencing homelessness, large households, single headed households, farmworkers, and extremely low-income housing were included. These are discussed below.

Seniors

With the overall aging of society, the senior population (persons over 65 years of age) will increase in most communities. Consequently, the need for affordable and specialized housing for older residents will grow. Typical housing types that meet the needs of seniors include smaller attached or detached housing for independent living (both market-rate and affordable), mobile homes, second units, shared housing, age-restricted below-market-rate rental developments, congregate care facilities, life-care facilities, residential care homes, and skilled nursing homes.

Disabled Citizens

People with disabilities have a wide range of differing housing needs, depending on the type and severity of their disability as well as personal preference and lifestyle. “Barrier-free design” housing, accessibility modifications, proximity to services and transit, and group living opportunities represent some of the types of considerations and accommodations that are important in serving this need group. State law requires the Housing Element to consider the housing needs of residents with developmental disabilities.

People Experiencing Homelessness

Homeless individuals and families have the most immediate housing need of any group. They also have the most difficult housing needs to meet, due to both the diversity and complexity of the factors that lead to homelessness and the lack of dedicated State and Federal funding for homeless shelters and transitional housing.

Large Households

Large households, defined by State law as households with five or more persons, may have difficulties purchasing housing because large housing units are rarely affordable and rental units with three or more bedrooms may not be common in many communities.

Single Headed Households with Children

Single-parent households need affordable housing with childcare on-site or nearby, in proximity to schools, and with access to services. Large households with single parents may have difficulty finding or affording appropriately sized housing. And despite fair housing laws and programs, discrimination against households with children may make it more difficult for this group to find adequate housing.

Farmworkers

Farmworkers tend to be relatively young, predominantly male, and Hispanic. While many of farmworkers are single men, some have family members accompanying them. Most farmworkers have high rates of poverty, live in overcrowded housing units, and have a low homeownership rate.

Extremely Low-Income Households

Extremely low-income households are defined as households with incomes under 30 percent of the area median income. Extremely low-income households typically consist of minimum wage workers, seniors on fixed incomes, the disabled, and farmworkers. This income group is likely to live in overcrowded and substandard housing conditions. This group of households has specific housing needs that require greater government subsidies and assistance, housing with supportive services, and/or rental subsidies or vouchers.

Structures

This section inventories the parcels (and associated structures) that make up the built environment of the City. The 2025 Sacramento County Assessor's data and the associated parcel layer was used as the basis of this inventory. The methodology used to derive the number of total and improved parcels (i.e., those with an improved structure value) and land and improved property values (as well as content replacement values) follows the same methodology detailed in Section 4.2.1 of the Base Plan. This data should only be used as a guideline to overall values in the City, as the information has some limitations. The most significant limitation is created by Proposition 13. With respect to Proposition 13, instead of adjusting property values annually, the values are not adjusted or assessed at fair market value until a property transfer occurs. As a result, overall value information is most likely low and does not reflect current market value of properties within the City. It is also important to note, in the event of a disaster, it is often the value of the infrastructure or improvements to the land that is of concern or at risk. Generally, the land itself is not a loss. However, depending on the type of hazard and impact of any given hazard event, land values may be adversely affected; thus, land values are included as appropriate. Table 1-7 shows the Sacramento County Parcel/Assessor Data land and structure values, and content replacement values (e.g., the values at risk) broken down by property use for the City.

Table 1-7 City of Isleton – Total Value of Parcels and Structures by Property Use

Property Use	Total Parcel Count	Improved Parcel Count	Total Land Value	Structure Value	Estimated Contents Value	Total Value
Agricultural	1	0	\$35,511	\$0	\$0	\$35,511
Care / Health	0	0	\$0	\$0	\$0	\$0
Church / Welfare	8	8	\$375,272	\$899,412	\$899,412	\$2,174,096
Industrial	6	6	\$2,984,575	\$2,013,050	\$3,019,575	\$8,017,200
Miscellaneous	22	0	\$962,699	\$0	\$0	\$962,699
Office	6	5	\$541,694	\$1,001,024	\$1,001,024	\$2,543,742
Public / Utilities	26	0	\$211	\$0	\$0	\$211
Recreational	0	0	\$0	\$0	\$0	\$0
Residential	251	249	\$18,644,115	\$45,167,681	\$22,583,841	\$86,395,637
Retail / Commercial	60	57	\$3,400,504	\$10,762,141	\$10,762,141	\$24,924,786
Unknown	0	0	\$0	\$0	\$0	\$0

Property Use	Total Parcel Count	Improved Parcel Count	Total Land Value	Structure Value	Estimated Contents Value	Total Value
Vacant	147	5	\$4,659,756	\$13,376	\$0	\$4,673,132
Isleton Total	527	330	\$31,604,337	\$59,856,684	\$38,265,993	\$129,727,014

Source: 2025 Sacramento County Parcel/Assessor Data

Critical Facilities and Infrastructure

Beyond just the buildings and structures that comprise the built environment, it is important to identify the critical facilities and infrastructure that are critical for life safety and property protection. This is done for the City of Isleton below.

For purposes of this plan, a critical facility is defined as:

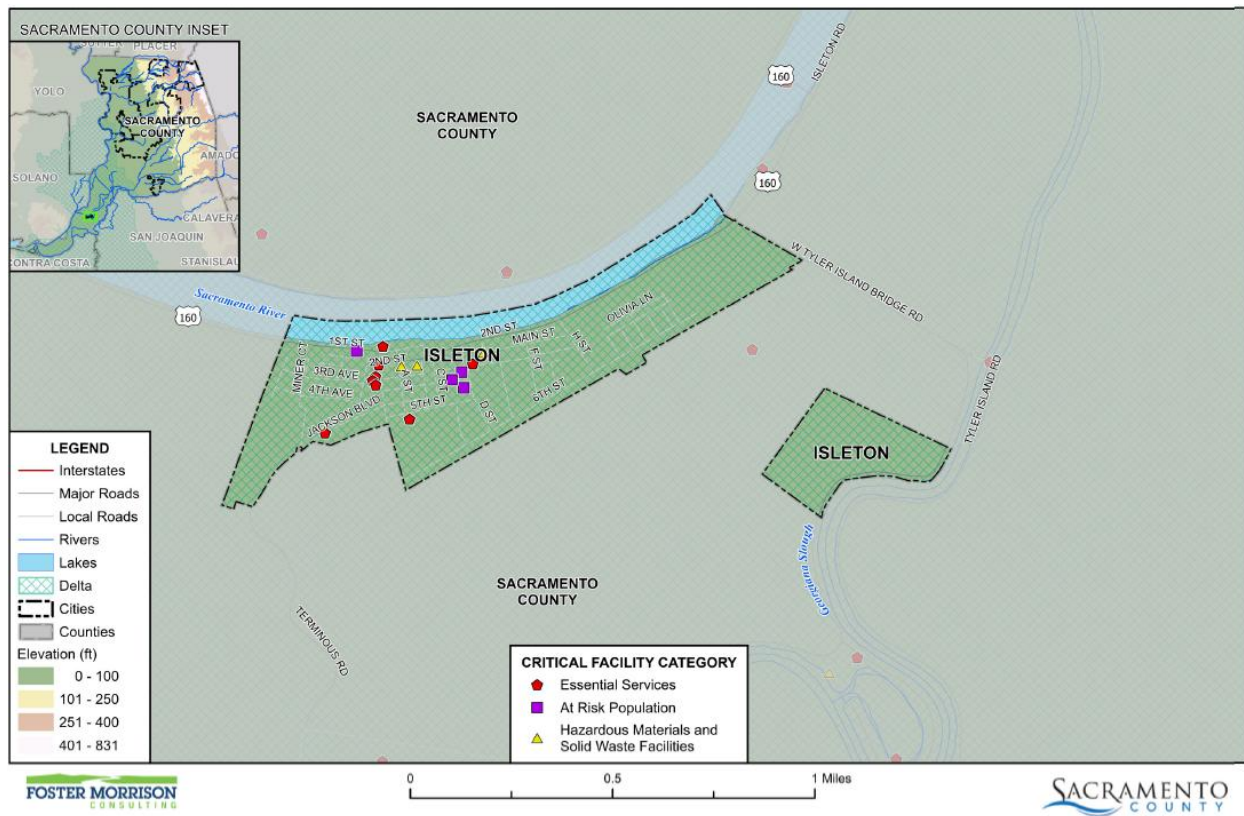
Any facility, including without limitation, a structure, infrastructure, property, equipment or service, that if adversely affected during a hazard event may result in severe consequences to public health and safety or interrupt essential services and operations for the community at any time before, during and after the hazard event.

A critical facility is classified by the following categories: (1) Essential Services Facilities, (2) At-risk Populations Facilities, (3) Hazardous Materials Facilities.

- Essential Services Facilities include, without limitation, public safety, emergency response, emergency medical, designated emergency shelters, communications, public utility plant facilities and equipment, and government operations facilities.
- At Risk Population Facilities include, without limitation, pre-schools, public and private primary and secondary schools, before and after school care centers with 12 or more students, daycare centers with 12 or more children, group homes, and assisted living residential or congregate care facilities with 12 or more residents.
- Hazardous Materials and Solid Waste Facilities include, without limitation, any facility that could, if adversely impacted, release of hazardous materials or waste in sufficient amounts during a hazard event that would create harm to people, the environment and property.

An inventory of critical facilities in the City of Isleton from Sacramento County GIS is shown on Figure 1-9. Table 1-8 gives summary information about the critical facilities in the City. Table 1-9 details the facility categories and breaks them down by facility type.

Figure 1-9 City of Isleton – Critical Facilities



Data Source: Sacramento County, Cal-Atlas; Map Date: 4/20/2026.

Table 1-8 City of Isleton – Critical Facilities by Category

Critical Facility Category	Facility Count
Essential Services Facilities	9
At Risk Population Facilities	4
Hazardous Materials and Solid Waste Facilities	3
Isleton Total	16

Source: Sacramento County GIS

Table 1-9 City of Isleton – Critical Facilities by Category and Type

Critical Facility Category	Critical Facility Type	Facility Count
Essential Services Facilities	Emergency Evacuation Center	1
	EMS Stations	1
	Fire Station	2
	Law Enforcement	1
	Microwave Service Towers	2
	Water Well	2
	Total	9
At Risk Population Facilities	Day Care Center	1

Critical Facility Category	Critical Facility Type	Facility Count
	Mobile Home Parks	1
	School	2
	Total	4
Hazardous Materials and Solid Waste Facilities	Leaky Underground Storage Tank	3
	Total	3
Isleton Total		16

Source: Sacramento County GIS

Community Lifelines

Assessing the vulnerability of the City of Isleton to natural hazards and disasters also involves reviewing and inventorying the community lifelines in place that could be affected. It is important to include these items in hazard discussions as the continuous operation of critical government and business functions is essential to human health and safety, property protection, and economic security. The importance of community lifelines is discussed below:

- Lifelines are the most fundamental services in the community that, when stabilized, enable all other aspects of society to function.
- FEMA has developed a method for objectives-based response that prioritizes the rapid stabilization of Community Lifelines after a disaster.
- The integrated network of assets, services, and capabilities that provide lifeline services are used day-to-day to support the recurring needs of the community and enable all other aspects of society to function.
- When disrupted, decisive intervention (e.g., rapid re-establishment or employment of contingency response solutions) is required to stabilize the incident.

Community lifelines, as defined by FEMA, include the following:

- **Safety and Security** – Law Enforcement/Security, Fire Service, Search and Rescue, Government Service, Community Safety
- **Food, Hydration, Shelter** – Food, Water, Shelter, Agriculture
- **Health and Medical** – Medical Care, Public Health, Patient Movement, Medical Supply Chain, Fatality Management
- **Energy** – Power Grid, Fuel
- **Communications** – Infrastructure, Responder Communications, Alerts Warnings and Messages, Finance, 911 and Dispatch
- **Transportation** – Highway/Roadway/Motor Vehicle, Mass Transit, Railway, Aviation, Maritime
- **Hazardous Material** – Facilities, HAZMAT, Pollutants, Contaminants
- **Water Systems** – Potable Water Infrastructure, Wastewater Management

It should be noted that these community lifelines are all in place and functional as part of regular government operations in the Sacramento County Planning Area serving as a partnership between the cities, local special districts and agencies, and Sacramento County. Most all of the City's community lifelines overlap with the Planning Area's, and include many of the critical facilities and infrastructure assets

inventoried for this LHMP. As such, specific information on these community lifelines in the City and how they may be affected by a hazard event or disaster are discussed collectively for all jurisdictions in the Base Plan.

Natural, Historic, and Cultural Resources

Assessing the vulnerability of the City of Isleton to natural hazards and disasters also involves inventorying the natural, historic, and cultural assets of the area. This step is important for the following reasons:

- Environmental and natural resources add to a community's identity and quality of life. They also help the local economy through agriculture, tourism, and recreation. They support ecosystem services, such as clean air and water.
- Conserving the environment may help people mitigate risk. It can also protect sensitive habitats, develop parks and trails, and build the economy.
- The community may decide that these types of resources warrant a greater degree of protection due to their unique and irreplaceable nature and contribution to the overall economy.
- If these resources are impacted by a disaster, knowing so ahead of time allows for more prudent care in the immediate aftermath, when the potential for additional impacts are higher.
- The rules for reconstruction, restoration, rehabilitation, and/or replacement are often different for these types of designated resources.
- Natural resources can have beneficial functions that reduce the impacts of natural hazards, such as wetlands and riparian habitat, which help absorb and attenuate floodwaters.

Natural Resources

The City contains a variety of natural resources. Natural resources are unique to each area, often provide an important function, and are difficult to replace. Should a natural disaster occur, these species, resources, and locations are at risk. The following is sourced from the City of Isleton 1990 General Plan.

Vegetation occurring throughout the urban areas includes nonnative annual grasses such as Italian ryegrass, Ripgut brome, and Bermuda grass. Nonnative herbaceous species such as Yellow star-thistle, Wild radish, Field mustard, Peppergrass, and Pampas grass are also present. Stands of Northern California black walnut are located along Hwy. 160, on the east side of the Sacramento River.

A number of irrigation canals occur within the agricultural lands and are vegetated with species adapted to wet habitats (e.g. Cattail, Bulrush, Cocklebur, and Waterpepper).

Riparian woodland vegetation occurs along the Sacramento River. The riparian corridors are dominated by Valley and Coast live oaks, Narrow-leaved willow, Fremont cottonwood, California buckeye, and Himalayan blackberry. Jackson Slough serves as an agricultural drainage canal within the area. Vegetation along the slough includes Narrow-leaved willow, Valley and Coast live oak, Himalayan blackberry, Giant reed, and emergent vegetation such as cattails. Several clumps of Blue elderberry shrubs were observed on the banks of the slough on the east side of Jackson Slough Road.

Wildlife habitats provide foraging and/or breeding habitat for wildlife species including amphibians, reptiles, birds, and mammals. Amphibian species that could occur in the City include bullfrog, Pacific

treefrog, and Western toad. Reptile species that may occur in the study area include Western terrestrial garter snake (*Thamnophis elegans*), Western fence lizard (*Sceloporus occidentalis*), and Western pond turtle (*Clemmys mannorata mannorata*). Habitat for Giant garter snakes (*Thamnophis gigas*) occurs in Jackson Slough.

The riparian habitats along the Sacramento River and Jackson Slough provide nesting and foraging habitat for numerous bird species. The agricultural lands provide foraging habitat for bird species such as Brewer's blackbird (*Euphagus cyanocephalus*), brown-headed cowbird (*Molothrus ater*), killdeer (*Charadrius vociferus*), and Western meadowlark (*Sturnella neglecta*). Raptors (birds of prey) known to forage in the vicinity of the Plan area include blackshouldered kite, Northern harrier (*Circus cyaneus*), and Swainson's hawk (*Buteo swainsoni*). Birds species that could forage in agricultural ditches and sloughs include American coot (*Fulica americana*), mallard (*Anas platyrhynchos*), and red-winged blackbird (*Agelaius phoeniceus*).

Small terrestrial mammals that could inhabit the area include Botta's pocket gopher (*Thomomys bottae*) and various species of mice, rats, and squirrels. Larger terrestrial mammals that could inhabit or transit through the area include Beaver, Opossum, Skunk, Raccoon, and River otter. Several species of bats could occur within the Plan area. These species forage on insects over open fields, above tree canopies, and over open water. Bats could use man-made structures and spaces under bark of large trees for day roosts.

Invertebrate species of concern in the plan area include the Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*). The Valley elderberry longhorn beetle is a federally listed threatened species dependent on elderberry shrubs for its life cycle. Blue elderberry shrubs were observed along Jackson Slough near Jackson Slough Road. The Antioch dunes anthicid beetle and the Sacramento anthicid beetle require loose, sandy soils. Potential habitat for anthicid beetles in the plan area is very marginal and limited to small patches of sandy soils along the Sacramento River levee.

The Sacramento River supports important sport and commercial fisheries. Warmwater game fish found in the Sacramento River include channel (*Ictalurus punctatus*) and white catfish (*Ictalurus catus*); largemouth, smallmouth, and spotted bass (*Micropterus salmoides*, *Micropterus dolomieu*, and *Micropterus punctulatus*); carp and various sunfishes (*Centrarchidae*). Native freshwater fish occurring in the Sacramento River include Sacramento perch, Sacramento roach, River lamprey, etc., as well as special-status species such as Delta smelt, Longfin smelt, Sacramento splittail, chinook salmon, and green sturgeon. The Delta smelt is a resident fish in the Delta around the City as well.

Wetlands and their Natural and Beneficial Functions

Wetlands are habitats in which soils are intermittently or permanently saturated or inundated. Wetland habitats vary from rivers to seasonal ponding of alkaline flats and include swamps, bogs, marshes, vernal pools, and riparian woodlands. Wetlands are considered to be waters of the United States and are subject to the jurisdiction of the U.S. Army Corps of Engineers as well as the California Department of Fish and Wildlife (CDFW). Where the waters provide habitat for federally endangered species, the U.S. Fish and Wildlife Service may also have authority.

Wetlands are a valuable natural resource for communities providing beneficial impact to water quality, wildlife protection, recreation, and education, and play an important role in hazard mitigation. Wetlands provide drought relief in water-scarce areas where the relationship between water storage and streamflow regulation is vital and reduce flood peaks and slowly release floodwaters to downstream areas. When surface runoff is dampened, the erosive powers of the water are greatly diminished. Furthermore, the reduction in the velocity of inflowing water as it passes through a wetland helps remove sediment being transported by the water.

Wetlands are often found in floodplains and depressional areas of a watershed. Many wetlands receive and store floodwaters, thus slowing and reducing downstream flow. Wetlands perform a variety of ecosystem functions including food web support, habitat for insects and other invertebrates, fish and wildlife habitat, filtering of waterborne and dry-deposited anthropogenic pollutants, carbon storage, water flow regulation (e.g., flood abatement), groundwater recharge, and other human and economic benefits.

Wetlands, and other riparian and sensitive areas, provide habitat for insects and other invertebrates that are critical food sources to a variety of wildlife species, particularly birds. There are species that depend on these areas during all parts of their lifecycle for food, overwintering, and reproductive habitat. Other species use wetlands and riparian areas for one or two specific functions or parts of the lifecycle, most commonly for food resources. In addition, these areas produce substantial plant growth that serves as a food source to herbivores (wild and domesticated) and a secondary food source to carnivores.

Wetlands slow the flow of water through the vegetation and soil, and pollutants are often held in the soil. In addition, because the water is slowed, sediments tend to fall out, thus improving water quality and reducing turbidity downstream.

These natural floodplain functions associated with the natural or relatively undisturbed floodplain that moderates flooding, such as wetland areas, are critical for maintaining water quality, recharging groundwater, reducing erosion, redistributing sand and sediment, and providing fish and wildlife habitat. Preserving and protecting these areas and associated functions are a vital component of sound floodplain management practices for the City.

Wetlands in the City are shown in Figure 1-10 and detailed in Table 1-10.

Figure 1-10 City of Isleton – Wetlands Areas

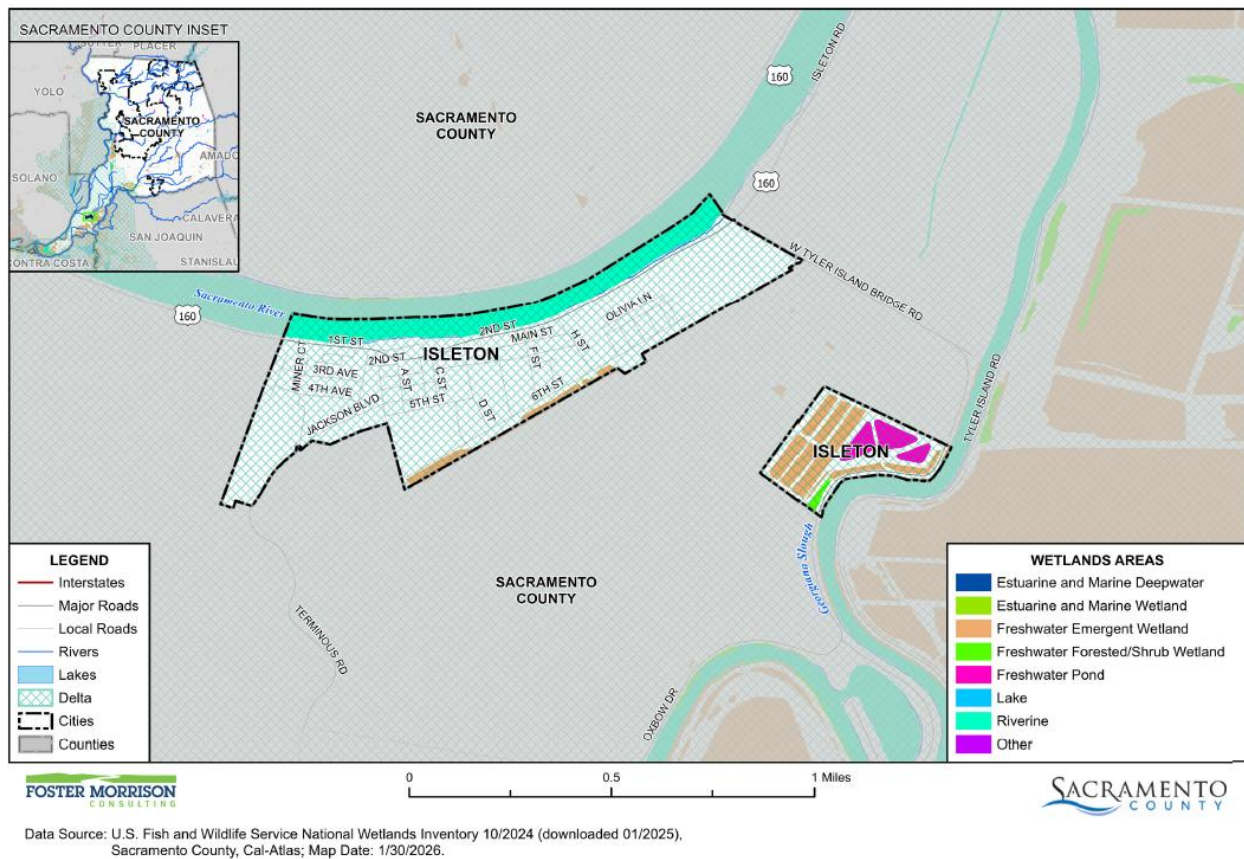


Table 1-10 City of Isleton – Wetland Types and Acreages

Jurisdiction / Wetlands Area Type	Wetlands Count	Wetlands Area (in Acres)	% of Total Acres of the Planning Area*	% of Total Acres of the Jurisdiction**
Freshwater Emergent Wetland	19	22	0.1%	64%
Freshwater Forested/Shrub Wetland	1	1	0.002%	3%
Freshwater Pond	3	7	0.02%	21%
Riverine	21	4	0.01%	13%
Isleton Total	44	35	0.1%	100%

Source: US Fish and Wildlife Service, 2025.

Historic and Cultural Resources

Historic and cultural resources are difficult to replace. Should a natural disaster occur, these properties and locations can be at risk. The City of Isleton has a stock of historically significant homes, public buildings, and landmarks. The California Department of Parks and Recreation Office of Historic Preservation (OHP) was the primary source of information. OHP administers the National Register of Historic Places, the

California Register of Historical Resources, California Historical Landmarks, and the California Points of Historical Interest programs. Each program has different eligibility criteria and procedural requirements. These requirements are detailed in Section 4.2.1 of the Base Plan. Table 1-11 shows 1 historic building in the City from the OHP Database. This is actually a collection of buildings.

Table 1-11 City of Isleton – Historic Resources

Name (Landmark Plaque Number)	National Register	State Landmark	California Register	Point of Interest	Date Listed	City/Area
Isleton Chinese And Japanese Commercial Districts (N1674)	X				3/14/1991	Isleton

Source: California Department of Parks and Recreation Office of Historic Preservation. Retrieved 12/15/2025.

The District noted in Table 1-11 is actually a collection of buildings. The City has a historic district which has been preserved in order to typify the region’s unique history. An aspect of Isleton’s distinctive history is its connection to Chinese and Japanese immigrant communities. There was a mass migration of Chinese immigrants to Isleton and the Delta in the latter half of the 19th century due to an availability in occupation regarding railroad construction, levee construction, and in agriculture. The two blocks of Main Street, which were Isleton’s original Chinatown and Japantown, were placed on the National Register for Historic Places in 1991. The metal siding that is present on these historic buildings today was constructed following the fire in 1926 that destroyed these two blocks. Chinese and Japanese communities quickly rebuilt Main Street following the fire and covered the buildings in metal siding to slow the spread of future fires. Today, Isleton’s residential areas are in the western portion of the City, passed City Hall and the Fire Station, and south of downtown surrounding Isleton Elementary School. The Isleton Trailer Park is located off of River Road to the west of Delta Avenue. The age of Isleton’s housing structures can be dated to the median year that Isleton’s homes were built, which is 1959. The greatest proportion of Isleton’s homes were built in 1939 or earlier at approximately 33 percent of all existing homes.

It should be noted that these lists may not be complete, as they may not include those currently in the nomination process and not yet listed. Additionally, as defined by the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA), any property over 50 years of age is considered a historic resource and is potentially eligible for the National Register. Thus, in the event that the property is to be altered, or has been altered, as the result of a major federal action, the property must be evaluated under the guidelines set forth by CEQA and NEPA. Structural mitigation projects are considered alterations for the purpose of this regulation.

Economic Assets and Community Activities of Value

Assessing the vulnerability of the City of Isleton to natural hazards and disasters also involves inventorying the economic assets and community activities of value in the City.

Economic Assets

After a disaster, economic resiliency is one of the major drivers of a speedy recovery. Each community has specific economic drivers. These include:

- Primary Economic Sectors
- Major employers
- Commercial Centers

Isleton doesn't have large-scale industrial employers. The economy centers on small businesses, services, and Delta-related activities:

- Hotel Del Rio and Casino (or similar local casino/hotel operations): One of the more notable local businesses, providing jobs in hospitality, gaming, and food service.
- Small retail, restaurants, and shops along Main Street (e.g., convenience stores, gas station, steakhouses, specialty shops, beer rooms).
- Boatyard, bait shops, and marinas supporting Delta recreation/boating.
- Agriculture-related activities (remnants of its past as an agricultural hub), though mechanization and other factors reduced local processing/employment.

The city has an active Chamber of Commerce supporting local businesses. Tourism (Delta history, historic Chinese/Japanese commercial districts, festivals) plays a supporting role.

Note: This inventory of economic assets is only included in this overall asset inventory for the City. To limit redundancy, it is not discussed further in the hazard profiles and vulnerability assessments in Section 1.4.3 below. However, depending on the type, location, magnitude and extent of future hazard events and disasters, these City's economic assets may be vulnerable.

Community Activities of Value

Inventorying economic assets in the City and their vulnerability to natural hazards and disasters also involves inventorying activities that have value to the community. This includes activities that are important to a community, like long-standing traditions such as a festival or fair. Some areas rely on seasonal industries to sustain them throughout the year. Many of these activities also provide economic benefits to the City. A hazard event that cancels or shortens these can affect a community's livelihood and can make disaster recovery more difficult or prolonged. This includes activities such as:

- Festivals and Fairs
- Sporting Events
- Tourism
- Local Pools

The City noted the following community activities of value:

- Isleton Crawdad Festival (often called the Crawdad or Cajun Festival): This is the town's flagship event and one of its biggest draws. It typically happens around Father's Day weekend in June, featuring crawfish/crawdads, live music, vendors, car shows, a kids' zone, and family-friendly activities. It's a big celebration of local food and community that has been running for years.
- Taste of the Delta: An annual event showcasing local breweries, wineries, restaurants, vendors, a vintage car show, and live music. It highlights Delta cuisine and products.

Note: This inventory of community activities of value only occurs in this overall asset inventory for the City. To limit redundancy, it is not discussed further in the hazard profiles and vulnerability assessments in Section 1.4.3 below. However, depending on the type, location, magnitude and extent of future hazard events and disasters, the City’s community activities of value may be vulnerable.

Growth and Development Trends

As part of the planning process, the City looked at changes in growth and development, both current and future, and examined these changes in the context of hazard-prone areas, and how the changes in growth and development affect loss estimates and vulnerability over time.

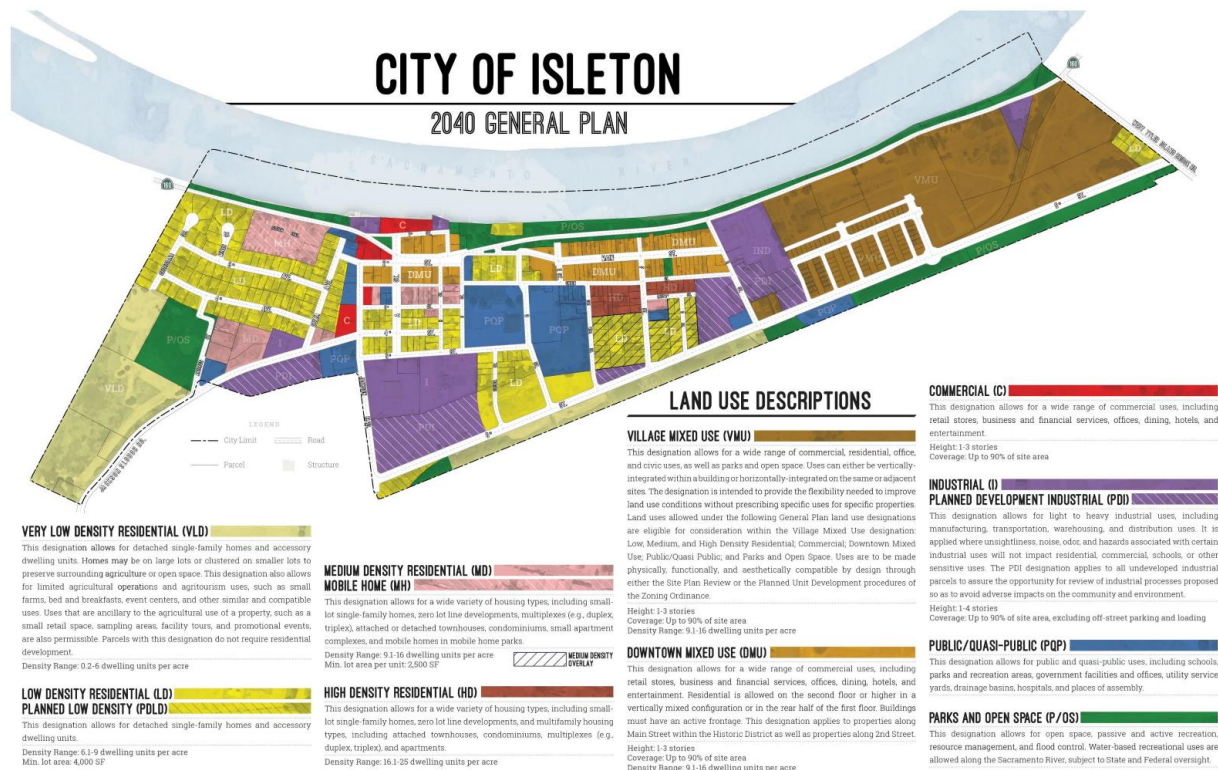
Land Use

State planning law requires that a land use element of a general plan include a statement of the standard population density, building intensity, and allowed uses for the various land use designations in the plan (Government Code Section 65302(a)). The City’s land use designations are generally described below and mapped on the Land Use Diagram (Figure 1-11). The City of Isleton Municipal Code provides detailed land use and development standards for development.

The Municipal Code works hand in hand with the City’s General Plan Land Use Element. The purpose of the Land Use Element is to provide goals, policies, actions diagrams and standards to guide future land use decisions in the City of Isleton. While all elements of the General Plan have equal weight under California law, in some respects this Element is the most far-reaching. It informs all other elements of the General Plan, shaping the future transportation network and the location of future housing sites, and influencing public facility requirements and park and recreation needs. It defines the City’s future open space system and responds to natural resource conservation issues and safety hazards. It establishes the basic pattern of development in the City for the next 20-25 years, including land uses and densities, and presents the policies and actions to ensure that future development will enhance the quality of life for all City of Isleton residents.

Future land use for the City of Isleton from the 2040 City of Isleton General Plan Land Use Element from 2024) is shown on Figure 1-11.

Figure 1-11 City of Isleton – Land Use Diagram



Source: City of Isleton 2040 General Plan Land Use Element. Retrieved 7/13/2026.

Population Trends and Projections

There are no future City population projections. The City has been shrinking slowly since 1970. That trend is expected to continue.

Development since 2021 Plan

Development has occurred in the City since the last plan. Some of this has occurred in hazard prone areas. The City Planning Department tracked total building permits issued since 2021 for the City. These are tracked by total development, property use type, and hazard risk area. These are shown in Table 1-12 and Table 1-13.

Table 1-12 City of Isleton – Total Development Since 2021

Property Use	2021	2022	2023	2024	2025	2026
Residential						
Commercial						
Industrial						
Total						

Source: City of Isleton Planning Department

Table 1-13 City of Isleton – Development in Hazard Areas since 2021

Property Use	1% Annual Chance Flood	Levee Protected Area	Wildfire Risk Area ¹	Other
Residential				
Commercial				
Industrial				
Total				

Source: City of Isleton Planning Department

¹Moderate or higher wildfire risk area

Recent development since the 2021 LHMP has been primarily occurring outside of identified hazard areas. All development was completed in accordance with current and applicable development codes, including floodplain ordinances, and other applicable standards and should be adequately protected. Thus, with the exception of more people living in the area potentially exposed to natural hazards, this growth should not cause a significant change in vulnerability of the City to identified priority hazards.

Future Development Areas

It is important to review future development plans for the City. Future development should be sited in areas that are away from known hazard risks. If this is not possible, mitigation should be done to ensure that future development is protected against future hazards.

GIS Analysis

The City of Isleton provided X future development areas which were used as the basis for the inventory of future development for the City. These were mapped in GIS. Figure 1-12 show the locations of the future development areas. Table 1-14 shows the details of the future development areas organized by future development type (property use) and status, and by map identification area, parcel counts, and acreage.

Figure 1-12 City of Isleton – Future Development Areas

Table 1-14 City of Isleton – Future Development Areas by Development Type and Status with Parcels and Acres

Source: City of Isleton

1.4.2. Hazard Identification

The City of Isleton identified the hazards that affect the City and summarized their location, extent, likelihood of future occurrence, potential magnitude, and significance specific to the City (see Table 1-15). Those hazards identified as a high or medium significance in Table 1-15 are considered City of Isleton priority hazards for mitigation planning. Those hazards that occur infrequently or have little or no impact in the City were determined to be of low significance and not considered a priority hazard. Significance was determined based on the hazard data and profile, focusing on key criteria such as frequency, extent,

and resulting damage, including deaths/injuries and property, natural and cultural resources, and economic damage.. The ability of a jurisdiction to reduce losses through implementation of existing and new mitigation measures was also considered as to the significance of a hazard. This assessment was used to prioritize those hazards of greatest significance, enabling the City to focus resources where they are most needed.

Table 1-15 City of Isleton—Hazard Identification Assessment

Hazard	Geographic Extent	Likelihood of Future Occurrences	Magnitude/Severity	Significance	Climate Change Influence
Aquatic Nuisance Species (plant/animal)	Limited	Occasional	Limited	Low	Low
Climate Change	Extensive	Highly Likely	Limited	Medium	–
Dam Failure	Extensive	Occasional	Critical	Low	Medium
Drought & Water Shortage (w/tree mortality)	Extensive	Likely	Limited	Low	High
Earthquake (w/subhazards)	Extensive	Unlikely	Critical	Low	Low
Flood: 1%/0.5%/0.2% annual chance	Extensive	Occasional	Catastrophic	High	Medium
Flood: Localized Stormwater	Significant	Highly Likely	Limited	Medium	Medium
Landslides, Mudslides, and Debris Flow	Limited	Unlikely	Negligible	Low	Medium
Levee Failure	Extensive	Occasional	Catastrophic	High	Medium
Sea Level Rise	Extensive	Likely	Critical	High	High
Severe Weather: Extreme Cold and Freeze	Extensive	Highly Likely	Limited	Low	Medium
Severe Weather: Extreme Heat	Extensive	Highly Likely	Limited	Low	High
Severe Weather: Heavy Rains and Storms (Hail, Lightning, Wind)	Extensive	Highly Likely	Limited	Medium	Medium
Severe Weather: High Winds and Tornadoes	Extensive	Highly Likely	Limited	Low	Low
Subsidence	Significant	Likely	Limited	Low	Medium
Wildfire (with smoke and air quality)	Limited	Occasional	Limited	Low	High
Geographic Extent Limited: Less than 10% of planning area Significant: 10-50% of planning area Extensive: 50-100% of planning area Likelihood of Future Occurrences Highly Likely: Near 100% chance of occurrence in next year, or happens every year. Likely: Between 10 and 100% chance of occurrence in next year, or has a recurrence interval of 10 years or less. Occasional: Between 1 and 10% chance of occurrence in the next year, or has a recurrence interval of 11 to 100 years. Unlikely: Less than 1% chance of occurrence in next 100 years, or has a recurrence interval of greater than every 100 years. Magnitude/Severity Catastrophic—More than 50 percent of property severely damaged; shutdown of facilities for more than 30 days; and/or multiple deaths Critical—25-50 percent of property severely damaged; shutdown of facilities for at least two weeks; and/or injuries and/or illnesses result in permanent disability Limited—10-25 percent of property severely damaged; shutdown of facilities for more than a week; and/or injuries/illnesses treatable do not result in permanent disability Negligible—Less than 10 percent of property severely damaged, shutdown of facilities and services for less than 24 hours; and/or injuries/illnesses treatable with first aid Significance Low: minimal potential impact Medium: moderate potential impact High: widespread potential impact Climate Change Influence Low: minimal potential impact Medium: moderate potential impact High: widespread potential impact					

1.4.3. Hazard Profiles and Vulnerability to Specific Hazards

This section includes the hazard profiles and vulnerability assessment for hazards ranked of medium or high significance specific to the City of Isleton (as identified in the Significance column of Table 1-15) and also includes a hazard profile for the four primary hazards to the State of California: dam failure, earthquake, flood, and wildfire, regardless of the significance ranking by the City. Chapter 4 of the Base Plan provides more detailed information about these hazards and their impacts on the Sacramento County Planning Area. Methodologies for evaluating vulnerabilities and calculating loss estimates are the same as those described in Section 4.2 of the Base Plan.

Hazard Profiles and Vulnerability Assessment

Each hazard is profiled in the following format:

- **Hazard Profile** – A hazard profile is included for each hazard. This includes information on:
 - ✓ **Hazard Overview** – A general discussion of the hazard and related issues is detailed here.
 - ✓ **Location and Extent** – Location is the geographic area within the City that is affected by the hazard. Extent is the expected range of intensity for each hazard. These are discussed in specific detail for mapped hazards, and in more general detail for those hazards that do not have discrete mapped hazard areas.
 - ✓ **Past Occurrences** – Past occurrences are discussed for each hazard. A discussion of disaster declarations is included in each hazard section. NCDC events are also discussed. Other past occurrences data specific to the City follow the disaster declarations and NCDC events for each hazard.
 - ✓ **Climate Change** – This section contains the effects of climate change (as applicable). The possible influence of climate change on the hazard is discussed.

After the hazard profile, a vulnerability assessment is presented. As part of the vulnerability assessment, an estimate of the vulnerability of the City to each identified hazard, in addition to the estimate of risk of future occurrence, is provided in each of the hazard-specific sections. Vulnerability is measured in general, qualitative terms and is a summary of the potential impact based on past occurrences, spatial extent, and damage and casualty potential. It is categorized into the following classifications:

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

After this classification, a general discussion of hazard vulnerabilities occurs. This is done in the following format:

- **General Vulnerability Discussion** – A general discussion of the hazard and its vulnerability on the City is provided.
- **Local Concerns** – This includes City provided information on how the City is uniquely affected by or vulnerable to each hazard.
- **Assets at Risk** – A discussion of the assets at risk follows, presented in the same order as in Section 1.4.1 above, with a few exceptions. This includes sections on: People and Populations; Structures; Critical Facilities and Infrastructure, and Natural, Historic, and Cultural Resources. These are discussed in specific terms for mapped hazards, and in more general terms for those hazards that are unmapped. Sections on Community Lifelines and Economic Assets and Community Activities of Value are not included in the Sections below, as they are fully covered in Section 1.4.1 above and in Chapter 4 of the Base Plan.
- **Impacts** – A discussion on hazard impacts follows. Impacts describe how each hazard can affect the City and its assets. The type and severity of impacts reflect both the potential magnitude of the hazard and the vulnerability of the asset.
- **Future Conditions/Future Development** – A discussion of how future conditions and future development may affect the hazard is also included. This is addressed specifically for mapped hazards, and in more general terms for those hazards that are unmapped.

Power Interruption/Power Failure: A Common Vulnerability of all Hazards

An impact or vulnerability of almost all hazards evaluated as part of this LHMP Update relates to power shortage and/or power failures. There are two major power providers in the Sacramento County Planning Area - Sacramento Municipal Utility District (SMUD) and Pacific Gas and Electric (PG&E). The US power grid crisscrosses the country, bringing electricity to homes, offices, factories, warehouses, farms, traffic lights and even campgrounds. According to statistics gathered by the U.S. Department of Energy, major blackouts are on the upswing. Incredibly, over the past two decades, blackouts impacting at least 50,000 customers have increased 124 percent. The electric power industry does not have a universal agreement for classifying disruptions. Nevertheless, it is important to recognize that different types of outages are possible so that plans may be made to handle them effectively. In addition to blackouts, brownouts can occur. A brownout is an intentional or unintentional drop in voltage in an electrical power supply system. Intentional brownouts are used for load reduction in an emergency. Electric power disruptions can be generally grouped into two categories: intentional and unintentional. More information on types of power disruptions can be found in Section 4.3 of the Base Plan. PG&E had no events since the 2021 LHMP.

Public Safety Power Shutoff (PSPS)

An intentional disruption type of power shortage/failure event has been recently implemented in California as a result of wildfires starting as a result of downed power lines or electrical equipment. This was the case for the Camp Fire in 2018. As a result, California's three largest energy companies (including PG&E), at the direction of the California Public Utilities Commission (CPUC), are preparing all Californians for the threat of wildfires and power outages during times of extreme (fire) weather. To help protect customers and communities during extreme fire weather events, electric power may be shut off for public safety in an

effort to proactively prevent wildfire. This is called a PSPS. More information on PSPS criteria can be found in Section 4.3 of the Base Plan. SMUD noted that it has had no PSPS events for its service territories.

Local Concerns

HAVE YOU HAD POWER OUTAGE ISSUES OF ANY TYPE ASSOCIATED WITH PAST HAZARD EVENTS SINCE 2021?

OLD ANNEX HAD – The power service in Isleton is not dependable. Over the past nine months the City endured about thirty power failures. It is not known if these power failures are related to public safety power shutoffs. The City did not receive notice prior to these power failures.

Hazard Profiles and Vulnerability Assessment by Hazards

The following sections provide the hazard profile and vulnerability assessments for each of the hazards identified in Section 1.4.2 Hazard Identification.

Climate Change

Likelihood of Future Occurrence–Likely

Vulnerability–Medium

Hazard Profile

Climate change adaptation is a key priority of the State of California. The 2023 State of California Multi-Hazard Mitigation Plan noted that climate change is affecting California. Sea levels have risen by as much as seven inches along the California coast over the last century, increasing erosion and pressure on the State’s infrastructure, water supplies, and natural resources. The State has also seen increased average temperatures, more extreme hot days, fewer cold nights, a lengthening of the growing season, shifts in the water cycle with less winter precipitation falling as snow, and earlier runoff of both snowmelt and rainwater in the year. In addition to changes in average temperatures, sea level, and precipitation patterns, the intensity of extreme weather events is also changing.

California’s Adaptation Planning Guide: Understanding Regional Characteristics (from 2017) has divided California into 11 different regions based on political boundaries, projected climate impacts, existing environmental setting, socioeconomic factors and regional designations. The City falls in the North Central Valley Region. A map and climate projections for this region are shown in Section 4.3.7 of the Base Plan and include an increase in temperatures, moderate changes in rainfall, and increased risk to wildfire.

Location and Extent

Climate change is a global phenomenon. It is expected to affect the whole of the City of Isleton, the Sacramento County Planning Area, surrounding counties, and State of California. There is no scale to measure the extent of climate change. Climate change exacerbates other hazards, such as drought, extreme heat, flooding, wildfire, and others. The speed of onset of climate change is very slow. The duration of climate change is not yet known but is feared to be tens to hundreds of years.

Past Occurrences

Disaster Declaration History

Climate change has never been directly linked to any declared disasters.

NCDC Events

NCDC does not track climate change events.

City of Isleton Events

Climate change has never been directly linked to any declared disasters. While the City noted that climate change is of concern, no specific impacts of climate change could be recalled. The City and HMPC members noted that the strength of storms does seem to be increasing and the temperatures are getting hotter.

Vulnerability to Climate Change

The whole of the City is at some measure of vulnerability to climate change. The City Planning Team has concerns that the vulnerability of the City to climate change will continue to increase in the future. An assessment of a community's vulnerability to climate change begins with an understanding of local exposure to climate change. This is included in the Local Concerns section below followed by a discussion of the City's assets at risk and impacts to this hazard.

Local Concerns

The City has specific concerns and unique vulnerabilities regarding this hazard. These concerns form a portion of the basis for the mitigation strategy and mitigation actions that seek to reduce risk and vulnerability to this hazard.

The City's greatest threat from climate change comes from sea level rise. That is discussed in its own hazard section below.

**OTHER VULNERABILITIES/CONCERNS/ISSUES/PROBLEM AREAS SPECIFIC TO THE CITY?
CAN THE CITY PROVIDE DETAILS ON THE CLIMATE CHANGE ISSUES THAT WILL SUPPORT
MITIGATION ACTION DEVELOPMENT?**

Assets at Risk

Assets at risk from climate change include people and populations; structures; critical facilities and infrastructure; and natural, historic, and cultural resources. These are discussed in the following sections.

People and Populations

Climate change affects people and populations within a community, especially those climate change issues related to increases in temperature over time. While all populations can be affected by temperature

extremes, populations particularly vulnerable include the very old and very young, medically fragile people, people without means of shelter (and air conditioning or heat) or transportation, people who are socially isolated and other vulnerable or underserved populations (as shown in the discussion in Section 1.4.1). Acclimatization to extreme temperatures and other weather extremes may help reduce impacts from these extreme events, such as from heat waves, in the healthy general population but may not be sufficient to protect those with underlying medical conditions.

Structures

Climate change, on its own, does not generally impact structures. However, structures in areas of increased flood, wildfire, or other areas exacerbated by the effects of climate change would be at increased risk, as described in the other hazard sections throughout this LHMP.

Critical Facilities and Infrastructure

As with structures, critical facilities and infrastructure in areas of increased wildfire, flood, or other areas due to the effects of climate change would be at increased risk. Climate change is expected to increase the vulnerability of critical facilities and infrastructure to many natural hazards.

Natural, Historic, and Cultural Resources

The rivers, streams, agricultural areas, and open space areas of the City supports rich biodiversity, including many special-status species and habitat areas. These are all at risk from the effects of climate change. In addition, if heat continues to contribute to changes in wildfire patterns, all areas (on land) of the City are at increased risk from fire – including natural, historic, and cultural resources. Furthermore, as climate change exacerbates the drought hazard, areas of wetlands in the City may be reduced or dry up temporarily, which could damage habitat areas for waterfowl and other species that depend on these areas.

Impacts from Climate Change

The California APG: Understanding Regional Characteristics identified the following impacts specific to the North Central Valley Region in which the City is part of:

- Increased temperatures
- Reduced precipitation
- Public health – heat and air pollution
- Reduced agricultural productivity
- Inland flooding
- Reduced tourism

In addition to these sources, the 2023 State of California Hazard Mitigation Plan noted that according to California’s Fourth Climate Change Assessment, the state will experience the following climate impacts:

- Annual average daily high temperatures are expected to rise by 2.7° F by 2040, 5.8°F by 2070, and 8.8°F by 2100 compared to observed and modeled historical conditions. These changes are statewide averages.
- Heat waves are projected to become longer, more intense, and more frequent.

- Warming temperatures are expected to increase soil moisture loss and lead to drier conditions. Summer dryness may become prolonged, with soil drying beginning earlier in the spring and lasting longer into the fall and winter.
- Droughts are likely to become more frequent and persistent through 2100.
- The strength of the most intense precipitation and storm events affecting California is expected to increase.
- Snowpack levels are projected to decline significantly by 2100 due to reduced snowfall and faster snowmelt.
- Marine layer clouds are projected to decrease.
- Extreme wildfires (i.e., fires larger than 24,710 acres) would occur 50 percent more frequently. The maximum area burned statewide may increase 178 percent by the end of the century.

Impacts to identified assets at risk to this hazard and the overall vulnerability of the City may be affected in the future by climate change (which was discussed in the hazard profile section above), changes in population patterns, and changes in land use and development. The influencing effects of these factors on this hazard are discussed further in the Future Conditions/Future Development discussion below.

Future Conditions/Future Development

This section provides a discussion of how future conditions will influence or affect the hazard over time and also discusses future development relative to each hazard.

Future Conditions

Future conditions may be affected by climate change, changes in population patterns (migration, density, or the makeup of socially vulnerable populations), and changes in land use and development. Findings on this for the City include the following:

- As climate change continues to accelerate over time, climate related impacts to the City will continue to increase.
- Climate change can influence population growth in the City over time. The City is expected to see continue to shrink which would limit climate impacts relative to those experienced in other regions. **FUTURE DEVELOPMENT DISCUSSION.** Changes in population and population patterns that would come with any new future development areas would likely increase the impacts associated with this hazard. Additionally, climate change may also influence future population growth in the City and County.
- Land use planning should be proactive to address future hazard conditions. **FUTURE DEVELOPMENT DISCUSSION.** The increasing severity and frequency of storms and other weather events and natural hazards due to the changing climate should be taken into account while considering land use planning and development in the City. Changes in land use and development may or may not increase the impacts and associated vulnerabilities of the City to this hazard depending on where and how this future growth occurs and the extent of future climate change influence in the City.

Future Development

Future development considerations should be ongoing and proactive. Ensuring that comprehensive land use planning is conducted, regulatory requirements, such as building codes, are followed, and varying needs

for different demographic groups that reside within the City are considered can help to make for a more disaster resilient community.

Dam Failure

Likelihood of Future Occurrence–Unlikely

Vulnerability– Low

Note: though a low significance hazard in the City, due to its importance in the County and in the State of California, this hazard is profiled here. It is not considered a City priority for mitigation planning purposes.

Hazard Profile

Dams are manmade structures built for a variety of uses including flood protection, power generation, agriculture, water supply, and recreation. When dams are constructed for flood protection, they are usually engineered to withstand a flood with a computed risk of occurrence. For example, a dam may be designed to contain a flood at a location on a stream that has a certain probability of occurring in any given year. If prolonged periods of rainfall and flooding occur that exceed the design requirements, that structure may be overtopped or fail. Overtopping is the primary cause of earthen dam failure in the United States.

Dam failures can also result from any one or a combination of the following causes:

- Earthquake
- Inadequate spillway capacity resulting in excess overtopping flows
- Internal erosion caused by embankment or foundation leakage, or piping or rodent activity
- Improper design
- Improper maintenance
- Negligent operation
- Failure of upstream dams on the same waterway

Dam failure is a natural disaster from two perspectives. First, the inundation from released waters resulting from dam failure is related to naturally occurring floodwaters. Second, a total dam failure would most probably happen as a consequence of the natural disaster triggering the event, such as an earthquake.

Location and Extent

An inventory map of dams located within and around Sacramento County was shown in Section 4.3.8 in the Base Plan. Inundation mapping and analyses were conducted on Extremely High and High Hazard dams with inundation areas located in the Sacramento County Planning Area. Dams with an inundation area within the City of Isleton are shown on Figure 1-13 and Figure 1-14. Three Extremely High Hazard dams intersect the City (Camanche, Oroville, and Rancho Seco. The City is affected by one High Hazard dams (from inside the County) – Nimbus).

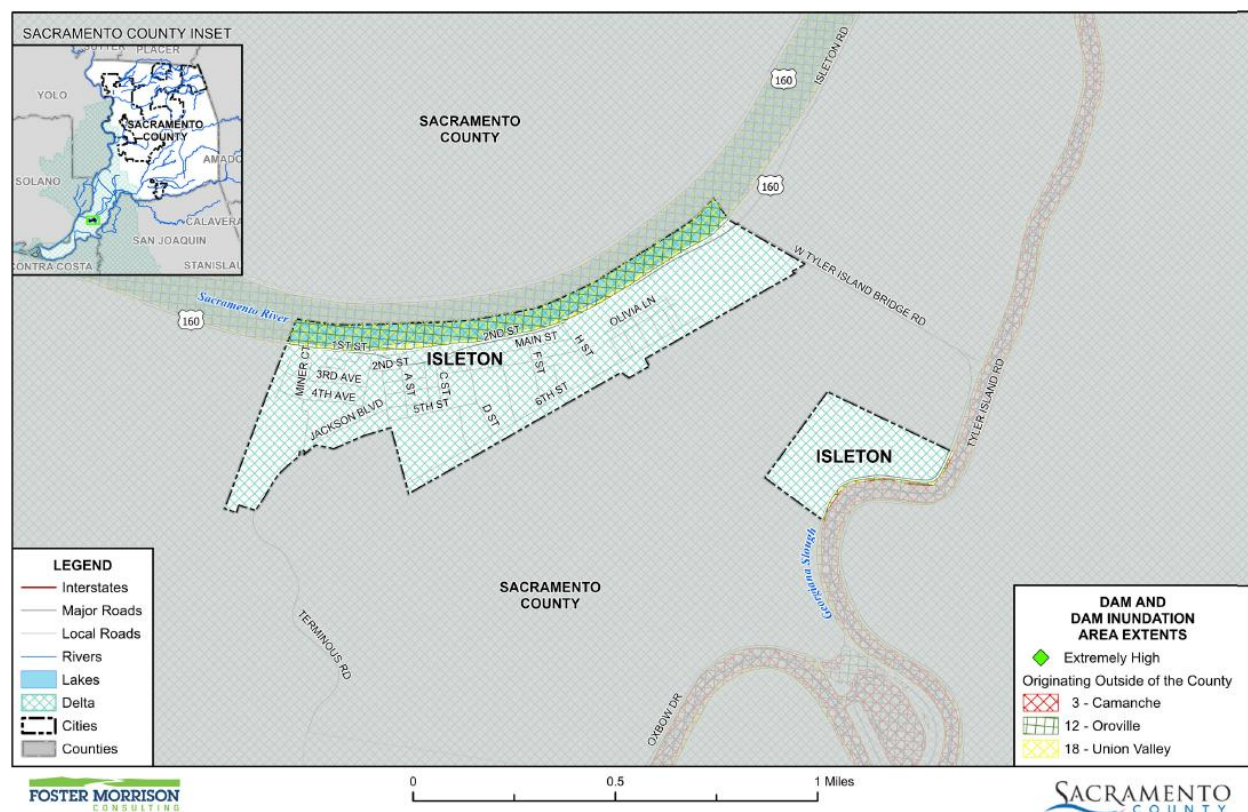
There is no scale with which to measure dam failure. However, FEMA and CA DWR Division of Safety of Dams (DSOD) assign hazard potential classifications to dams within the State that provides information on the potential impact should a dam fail. The following two factors are considered when assigning hazard

ratings: existing land use and land use controls (zoning) downstream of the dam. FEMA categorizes the downstream hazard potential into three categories in increasing severity: Low, Significant, and High. DSOD adds a fourth category of Extremely High. Dams are classified in these four categories that identify the potential hazard to life and property. These were discussed in more detail in Section 4.3.8 of the Base Plan.

While a dam may fill slowly with runoff from winter storms, a dam break has a very quick speed of onset. The duration of dam failure is generally not long – only as long as it takes to empty the reservoir of water the dam held back. For dam overtopping, the speed of onset is somewhat slower than that of a dam break, and the duration is longer (as evidenced in the 2017 Oroville Dam spillway event). The City would be affected for as long as the flood waters from the dam failure took to drain downstream.

Geographic flood extent from the DSOD dam inundation areas is shown on Figure 1-13 and in Table 1-16 for Extremely High Hazard (Outside the County) dams; and in Figure 1-14 and in Table 1-17 for High Hazard (inside the County) dams.

Figure 1-13 City of Isleton – Extremely High Hazard Dam (Outside the County) Inundation Areas



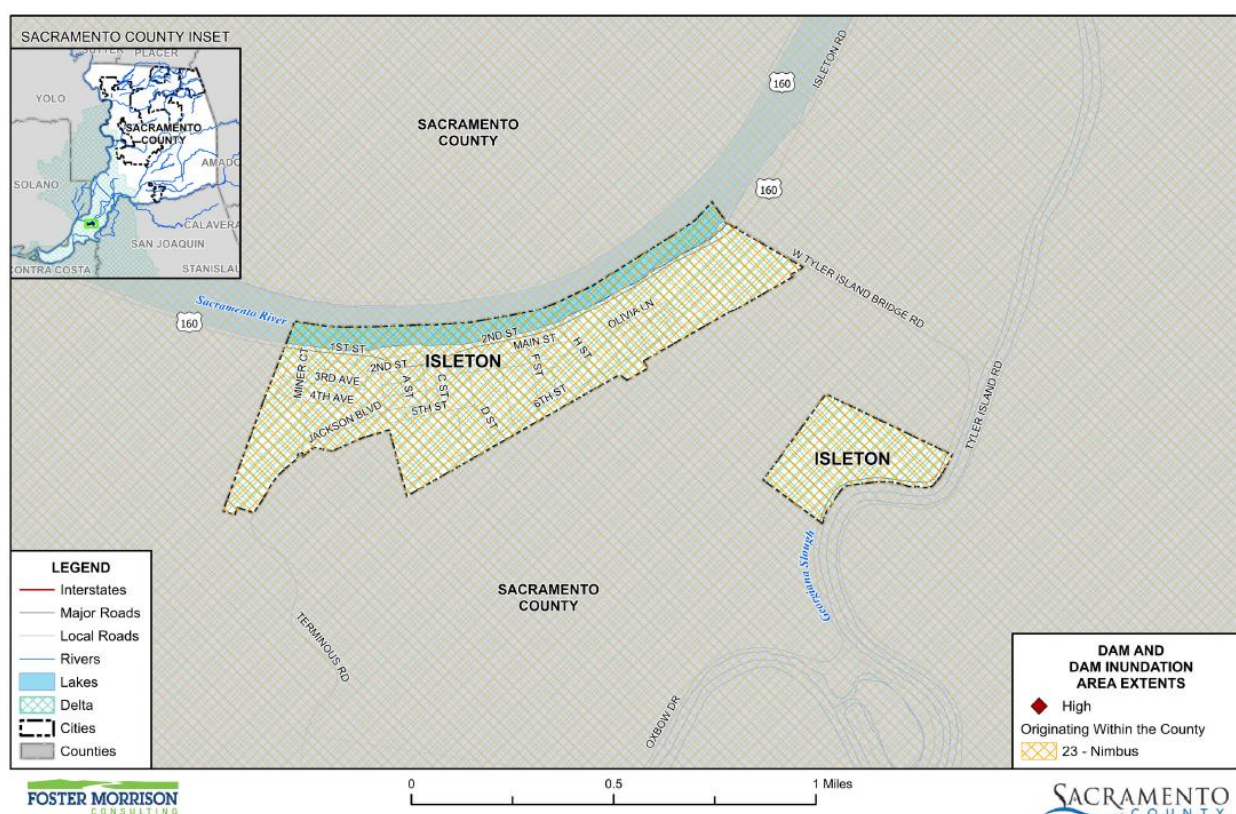
Data Source: DWR DSOD dam inundations (updated 7/2025; data downloaded 10/2025),
NID dam inventory and inundation data (updated 11/6/2025; data downloaded 11/6/2025),
Sacramento County, Cal-Atlas; Map Date: 4/2/2026.

Table 1-16 City of Isleton – Extremely High Hazard Dam (Outside the County) Inundation Area Geographical Extents

Jurisdiction / Dam Inundation Area	Total Acres	% of Total Acres	Improved Acres	% of Total Improved Acres	Unimproved Acres	% of Total Unimproved Acres
Camanche	0.1	0.1%	0	0%	0.1	0.1%
Oroville	10	4%	2	3%	8	5%
Union Valley	9	4%	2	2%	7	4%

Source: DSOD

Figure 1-14 City of Isleton – High Hazard Dam (Inside the County) Inundation Areas



Data Source: DWR DSOD dam inundations (updated 7/2025; data downloaded 10/2025),
NID dam inventory and inundation data (updated 11/6/2025; data downloaded 11/6/2025),
CalOES CIP dam inundation data (3/2017),
Sacramento County, Cal-Atlas; Map Date: 4/2/2026.

Table 1-17 City of Isleton –Extremely High Hazard Dam (Outside the County) Inundation Area Geographical Extents

Dam Inundation Area	Total Acres	% of Total Acres	Improved Acres	% of Total Improved Acres	Unimproved Acres	% of Total Unimproved Acres
Nimbus	233	100%	66	100%	167	100%

Source: DSOD

Though the City falls into dam inundation areas, it does not consider dam failure a priority hazard for mitigation planning purposes. Significance and priority of a hazard was determined based on frequency, extent, and resulting damage, including deaths/injuries and property, natural and cultural resources, and economic damage. The ability of a jurisdiction to reduce losses through implementation of existing and new mitigation measures was also considered as to the significance and priority of a hazard. This assessment was used by the City to prioritize those hazards of greatest significance, enabling the City to focus resources where they are most needed. As such, no additional analysis is presented for this hazard, due to its low significance in the City. Further, as a non-priority hazard, it will not be carried forward into the mitigation strategy for the City

Earthquake (w/Subhazards)

Likelihood of Future Occurrence—Unlikely

Vulnerability—Low

Note: though a low significance hazard in the City, due to its importance in the State of California and its ability to trigger secondary hazard events, such as dam or levee failure, this hazard is only profiled here. No vulnerability assessment is conducted. Further, it is not considered a City priority for mitigation planning purposes.

Hazard Profile

An earthquake is caused by a sudden slip on a fault. Stresses in the earth's outer layer push the sides of the fault together. Stress builds up, and the rocks slip suddenly, releasing energy in waves that travel through the earth's crust and cause the shaking that is felt during an earthquake. Earthquakes cause ground shaking, possible liquefaction, landslide, settlement, and can cause fires that follow the earthquake. Earthquakes can cause structural damage, injury, and loss of life, as well as damage to infrastructure networks, such as water, wastewater, power, gas, communication, and transportation. Earthquakes may also cause collateral emergencies including dam and levee failures, seiches, hazmat incidents, fires, avalanches, and landslides. The degree of damage depends on many interrelated factors. Among these are: the magnitude, focal depth, distance from the causative fault, source mechanism, duration of shaking, high rock accelerations, type of surface deposits or bedrock, degree of consolidation of surface deposits, presence of high groundwater, topography, and the design, type, and quality of building construction.

Liquefaction Potential

Liquefaction can be defined as the loss of soil strength or stiffness due to a buildup of pore-water pressure during a seismic event and is associated primarily with relatively loose, saturated fine- to medium-grained unconsolidated soils. Seismic ground shaking of relatively loose, granular soils that are saturated or submerged can cause the soils to liquefy and temporarily behave as a dense fluid. If this layer is at the surface, its effect is much like that of quicksand for any structure located on it. If the liquefied layer is in the subsurface, the material above it may slide laterally depending on the confinement of the unstable mass. Liquefaction is caused by a sudden temporary increase in pore-water pressure due to seismic densification or other displacement of submerged granular soils. Liquefiable soil conditions are not uncommon in alluvial deposits in moderate to large canyons and could also be present in other areas of alluvial soils where

the groundwater level is shallow (i.e., 50 feet below the surface). Bedrock units, due to their dense nature, are unlikely to present a liquefaction hazard.

Location and Extent

Since earthquakes are regional events, the whole of the City is at risk to earthquake. The City of Isleton, Sacramento County, and surrounding areas have some level of risk from seismic and geologic hazards. Regional faults were shown in Section 4.3.10 of the Base Plan. Geological literature indicates that no major active faults transect the County; however, there are several subsurface, likely inactive, faults in the Delta, such as the Midland fault. A second, presumably inactive, fault is in the vicinity of Citrus Heights near Antelope Road. To the east, the Bear Mountain fault zone trends northwest-southeast through Sacramento and El Dorado Counties. As noted in the Base Plan, there have been historically active faults outside the County. These include: San Andreas, Vaca, Concord, Greenville, Hayward, Calaveras, Foothill Fault System, Las Positas, Midland, and West Napa. A significant seismic event on any of these major faults could cause damage in the City of Isleton.

The amount of energy released during an earthquake is usually expressed as a magnitude and is measured directly from the earthquake as recorded on seismographs. An earthquake's magnitude is expressed in whole numbers and decimals (e.g., 6.8). Seismologists have developed several magnitude scales, as discussed in Section 4.3.11 of the Base Plan.

Another measure of earthquake severity is intensity. Intensity is an expression of the amount of shaking at any given location on the ground surface. Seismic shaking is typically the greatest cause of losses to structures during earthquakes. The City is located in an area where earthquakes of some magnitude occur, so both magnitude and intensity of earthquakes are expected to remain low to moderate. Seismic shaking maps for the area in Section 4.3.10 of the Base Plan show Sacramento County and the City fall within a low to moderate shake risk.

Though the City falls into earthquake shake areas, it does not consider earthquake a priority hazard for mitigation planning purposes. This includes subhazards associated with the earthquake hazard, including liquefaction and others as discussed in the Base Plan. With respect to liquefaction, in Sacramento County, liquefaction zones were mapped by CGS for the first time in 2025. Based on the new 2025 liquefaction mapping, only the unincorporated County and City of Sacramento have areas falling within a liquefaction zone. No mapped liquefaction zones are found in the City. Significance and priority of a hazard was determined based on frequency, extent, and resulting damage, including deaths/injuries and property, natural and cultural resources, and economic damage. The ability of a jurisdiction to reduce losses through implementation of existing and new mitigation measures was also considered as to the significance and priority of a hazard. This assessment was used by the City to prioritize those hazards of greatest significance, enabling the City to focus resources where they are most needed. As such, no additional analysis is presented for this hazard, due to its low significance in the City. Further, as a non-priority hazard, it will not be carried forward into the mitigation strategy for the City.

Flood: 1%/0.5%/0.2% Annual Chance

Likelihood of Future Occurrence—Occasional (1%)/Unlikely (0.5/0.2%)

Vulnerability—High

Hazard Profile

This hazard discusses the FEMA DFIRM 1%, 0.5%, and 0.2% annual chance floods. These tend to be the larger floods that can occur in the City and have caused damage in the past. Flooding can be a significant problem in the City. Historically, the City has been at risk to flooding primarily during the winter and spring months when river systems in the City swell with heavy rainfall and snowmelt runoff. The City has also been at risk during atmospheric river flood events. The City has also been at risk during atmospheric river flood events. Rain on snow events occurring in upper elevations during the spring months can also be significant and contribute to greater downstream runoff and flooding during large storm events. Normally, storm floodwaters are kept within defined limits by a variety of storm drainage and flood control measures located throughout the Sacramento County Planning Area and the City of Isleton. Occasionally, extended heavy rains result in floodwaters that exceed normal high-water boundaries and cause damage. Flooding has occurred both within the 1%, 0.5%, and 0.2% annual chance floodplains and in other localized areas in the City.

Location and Extent

The City of Isleton has areas located in the 1% annual chance flood zones. This is seen in Figure 1-15.

Figure 1-15 City of Isleton – FEMA DFIRM Flood Zones

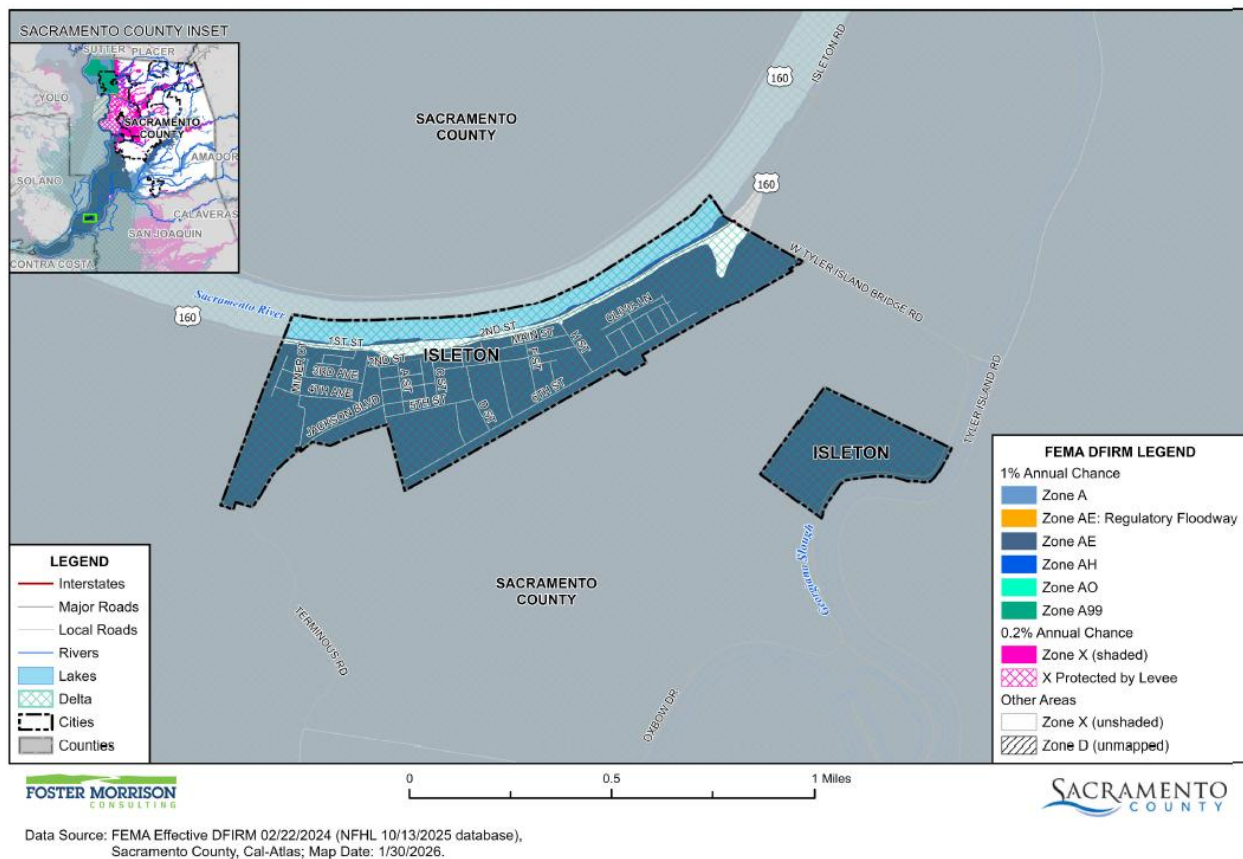


Table 1-18 details the DFIRM mapped flood zones located within the City.

Table 1-18 City of Isleton– DFIRM Flood Hazard Zones

Flood Zone	Description	Present in City of Isleton
A	1% annual chance flooding; No base flood elevations provided	
AE Regulatory Floodway	1% annual chance flood: Regulatory floodway; Base flood elevations provided	
AE	1% annual chance flooding; Base flood elevations provided	X
AH	1% annual chance flood areas of shallow flooding between one to three feet deep. Regulatory floodway; Base flood elevations provided	
AO	Areas subject to inundation by 1-percent-annual-chance shallow flooding (usually sheet flow on sloping terrain) where average depths are between one and three feet. Average flood depths derived from detailed hydraulic analyses are shown in this zone.	
A99	Areas subject to inundation by the 1-percent-annual-chance flood event, but which will ultimately be protected upon completion of an under-construction Federal flood protection system.. No Base Flood Elevations (BFEs) or depths are shown.	

Flood Zone	Description	Present in City of Isleton
X (shaded)	0.2% annual chance flooding: The areas between the limits of the 1% annual chance flood and the 0.2-percent-annual-chance (or 500-year) flood	X
X Protected by Levee	Areas protected by levees from 1% annual chance flood event. Levee protection places these areas in the 0.2% annual chance flood zone. Flood insurance is not mandatory but is available.	
X (unshaded)	Areas of minimal flood hazard	X
D	Unmapped areas	

Source: FEMA DFIRM 02/22/2024

Additionally, flood extents can generally be measured in volume, velocity, and depths of flooding. Expected flood depths in the City vary, depending on the nature and extent of a flood event; specific depths are unknown. Flood durations in the City tend to be short to medium term, or until either the storm drainage system can catch up or flood waters move downstream. Flooding in the City tends to have a shorter speed of onset, due to the amount of water that flows through the City.

Geographical flood extents for the City from the FEMA DFIRMs are shown in Table 1-19.

Table 1-19 City of Isleton – Geographical DFIRM Flood Zone Extents

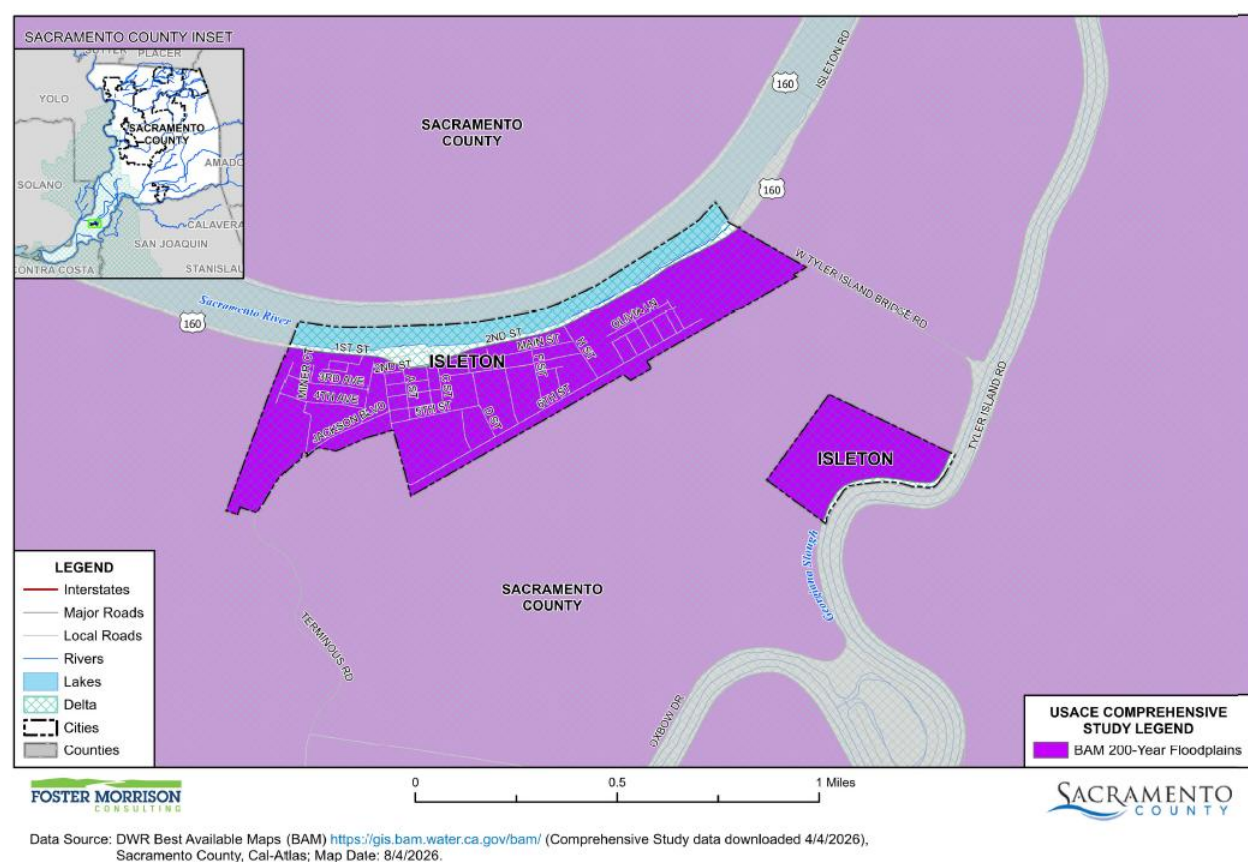
Flood Zone	Total Acres	% of Total Acres	Improved Acres	% of Total Improved Acres	Unimproved Acres	% of Total Unimproved Acres
1% Annual Chance Flood Hazard	220	94%	61	93%	159	95%
0.2% Annual Chance Flood Hazard	0	0%	0	0%	0	0%
Other Areas	13	6%	5	7%	9	5%
Total	233	100%	66	100%	167	100%

Source: FEMA DFIRM 02/22/2024

0.5% Annual Chance Mapping

Urban level of flood control in California is defined as the level of protection necessary to withstand a 1-in-200 or 0.5% annual chance of flooding in any given year. This standard is mandated for urban and urbanizing areas within the Central Valley (populations of 10,000 or more) by the Central Valley Flood Protection Act of 2008, which requires local jurisdictions to incorporate these criteria into land use planning and development policies. There are 0.5% annual chance flood areas in City. These are shown on Figure 1-16.

Figure 1-16 City of Isleton – 0.5% Annual Chance Flooding

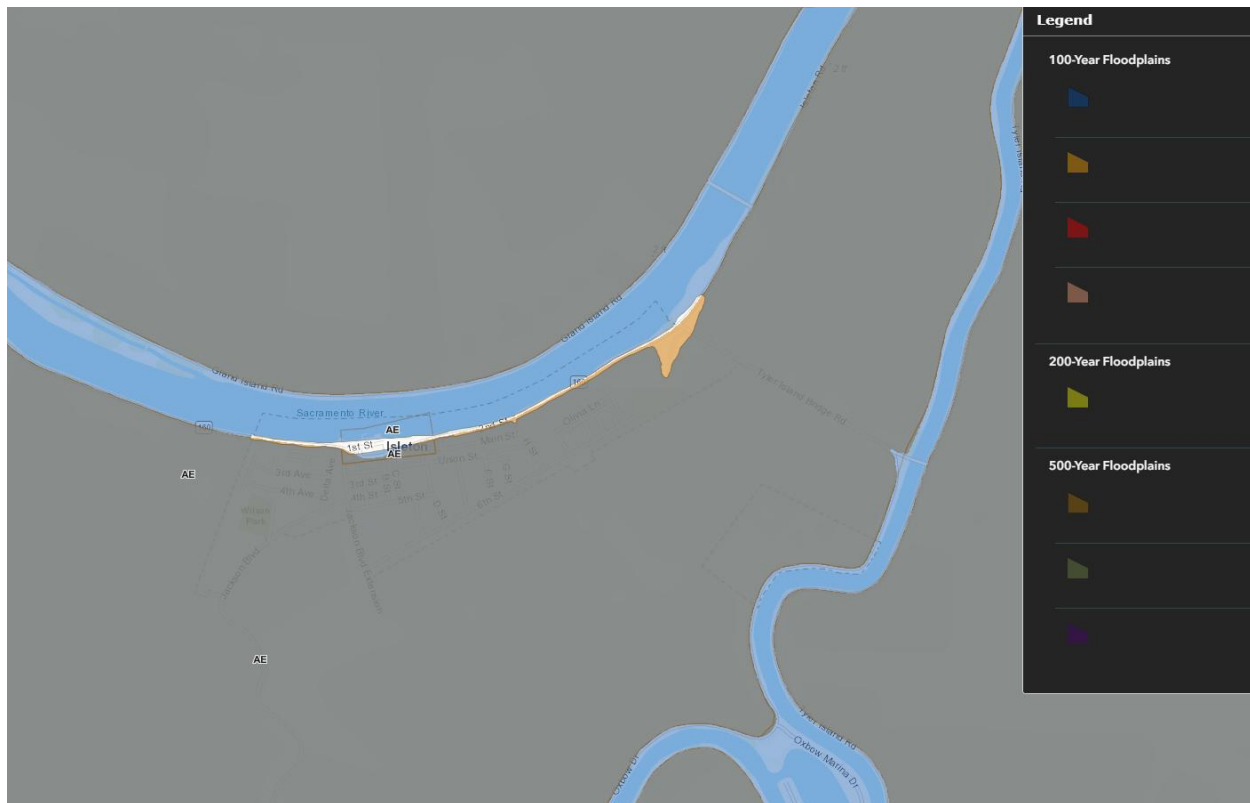


California Department of Water Resources Best Available Maps (BAM)

The FEMA regulatory maps provide just one perspective on flood risks in the City. Senate Bill 5 (SB 5), enacted in 2007, authorized the California DWR to develop the Best Available Maps (BAM) displaying 100- and 200-year floodplains for areas located within the Nevada-San Joaquin (SAC-SJ) Valley watershed. This effort was completed by DWR in 2008. DWR has expanded the BAM to cover all counties in the State and to include 500-year floodplains.

Different than the FEMA DFIRMs which have been prepared to support the NFIP and reflect only the 100-year event risk, the BAMs are provided for informational purposes and are intended to reflect current 100-, 200-(as applicable), and 500-year event risks using the best available data. The 100-year floodplain limits on the BAM are a composite of multiple 100-year floodplain mapping sources. It is intended to show all currently identified areas at risk for a 100-year flood event, including FEMA's 100-year floodplains. The BAM are comprised of different engineering studies performed by FEMA, Corps, and DWR for assessment of potential 100-, 200-, and 500-year floodplain areas. These studies are used for different planning and/or regulatory applications, and for each flood frequency may use varied analytical and quality control criteria depending on the study type requirements. The value in the BAMs is that they provide a bigger picture view of potential flood risk to the City than that provided in the FEMA DFIRMs. The BAM map for the City is shown in Figure 1-17.

Figure 1-17 City of Isleton – Best Available Map



Source: California DWR. Retrieved 12/1/2025.

Legend explanation: **Blue** - FEMA 100-Year, **Orange** – Local 100-Year (developed from local agencies), **Red** – DWR 100-year (Awareness floodplains identify the 100-year flood hazard areas using approximate assessment procedures.), **Pink** – USACE 100-Year (2002 Sac and San Joaquin River Basins Comp Study), **Yellow** – USACE 200-Year (2002 Sac and San Joaquin River Basins Comp Study), **Tan** – FEMA 500-Year, Grey – Local 500-Year (developed from local agencies), **Purple** – USACE 500-Year (2002 Sac and San Joaquin River Basins Comp Study).

Past Occurrences

Disaster Declaration History

A list of state and federal disaster declarations for Sacramento County from flooding is shown on Table 1-20. These events also likely affected the City to some degree.

Table 1-20 Sacramento County – State and Federal Disaster Declarations from Flood 1950-2025

Disaster Type	State Declarations		Federal Declarations	
	Count	Years	Count	Years
Flood (including heavy rains and storms)	26	1950, 1955, 1958 (twice), 1963, 1969, 1982 (twice), 1983, 1986, 1995 (twice), 1996, 1997, 1998, 2008, 2017 (three times), 2022*, 2023 (three), 2024 (twice)	18	1955, 1958, 1964, 1969, 1983, 1986, 1995 (twice), 1997, 1998, 2006, 2017 (three times), 2023 (three times)*, 2024*

Source: Cal OES, FEMA

*included a landslide component.

NCDC Events

The NCDC tracks flooding events for the County. Events have been tracked for flooding since 1993. Sacramento County has seen 174 events. These events most likely had some impact on the City.

City of Isleton Events

Past flooding in the City of Isleton area has been primarily due to levee failures caused by the separate or coincidental occurrence of very high tides and high stream outflow through the Delta region, or from unexplained levee failures apparently not related to these phenomena. As such, the past occurrences of flood in the City of Isleton can be found in the Levee Failure section below.

Climate Change and Flood

It is likely that climate change will increase the chance of future occurrence as well as future impacts associated with flood. More information on future impacts to the City can be found in the Future Conditions/Future Development section of the Vulnerability Assessment below.

According to the 2024 CAS, climate change may affect flooding in California, the Sacramento County Planning Area, and the City of Isleton. While average annual rainfall may increase or decrease slightly, the intensity of individual rainfall events is likely to increase during the 21st century. It is possible that average soil moisture and runoff could decline, however, due to increasing temperature, evapotranspiration rates, and spacing between rainfall events. Reduced snowpack and increased number of intense rainfall events are likely to put additional pressure on water infrastructure which could increase the chance of flooding associated with breaches or failures of flood control structures such as levees and dams. Cal Adapt future precipitation projections were shown in Section 4.3.4.

The 2024 Sacramento County CAP noted that climate change is likely to lead to changes in the frequency, intensity, and duration of extreme weather events, such as sustained periods of heavy precipitation, increased rainfall intensity during precipitation events, and increased risk of rain-on-snow events. Further, more winter-time precipitation that falls as rain instead of snow, and higher temperatures that will cause earlier snowmelt, which could produce substantial surface water flows over a short period of time and may potentially affect dams and spillways and overwhelm levee systems designed for historical precipitation patterns. Historically, the County experienced an average of four extreme precipitation events per year (as shown in Section 4.3.4 of the Base Plan). Under the medium and high emissions scenarios, the County is expected to experience five to six extreme precipitation events per year by mid-century and six to seven extreme precipitation events per year by the late century.

The 2026 American, Bear, and Cosumnes Watersheds Resilience Plan noted that a key driver of climate vulnerability, adaptive capacity, and implementation readiness in the watershed group is flooding. An equity analysis was performed as part of this Plan. An Equity Analysis Technical Appendix demonstrates how social vulnerability aligns with the physical hazard environment across the watershed. It noted that flooding impacts are most severe downstream, where rising flows increasingly stress Sacramento's levee system; a modeled levee-breach scenario affects 12.5% of the watershed population, and 59% of those affected fall into the highest flood-sensitivity category.

Future flooding exacerbated by climate change will result in a range of potential impacts across the County and the City. For populations, there is an array of social vulnerability factors that exacerbate flood-related risks, and those residing in floodplains are especially vulnerable to the direct impacts of flooding. Floodwaters can interact with sources of pollution and distribute hazardous pollutants locally and regionally, which may result in water contamination and a range of human health impacts. Additionally, flooding can disrupt transportation networks, cause economic losses through business and government facility closures, disrupt communications, disrupt the provision of utilities, and cause significant damage to buildings and critical infrastructure. Further, flooding may also threaten ecosystems and agricultural resources; unlike natural flooding regimes that deposit useful sediment resulting in increased soil fertility as well as groundwater recharge, catastrophic flooding from levee overtopping could lead to soil erosion and loss of viable cropland. It could also release sewage and hazardous materials into the environment if wastewater treatment plants are inundated, storage tanks are damaged, and pipelines are severed.

The June 2025 Delta Adapts Adaptation Plan noted that climate change will affect flooding in the Delta. Located at the confluence of the Sacramento and San Joaquin Rivers and San Francisco Bay, the Delta is a complex system whose water levels are influenced by riverine inflows, tides, storm surge, and in some locations, flood hazard management and water supply infrastructure. Climate change will affect many of these factors, increasing the risk of flooding. Riverine flows are the primary driver of high-water levels in the north and south Delta, where more frequent and stronger watershed precipitation events and a shift in winter precipitation from snow to rain will drive flood vulnerabilities. In contrast, higher sea levels will increase the likelihood of flooding in Suisun Marsh and the western and central Delta. Climate change is expected to increase the frequency of large runoff events across the Delta watershed. Most of the Delta's flood management infrastructure, including 1,100 miles of levees and upstream reservoirs, were designed to operate under historical conditions that did not consider climate change. Climate change will place greater stress on the flood management system, and Delta levees will become increasingly vulnerable to breaches, overtopping, or other types of failure if no action is taken.

Vulnerability to Flood: 1%, 0.5%, and 0.2% Annual Chance

Floods have been a part of the City's historical past and will continue to be so in the future. During winter months, long periods of precipitation and the timing of that precipitation are critical in determining the threat of flood, and these characteristics further dictate the potential for widespread structural and property damage. Predominantly, the effects of 1% and 0.2% annual chance flooding are generally confined to areas near the waterways of the City. As waterways grow in size from local drainages, so grows the threat of flood and dimensions of the threat.

The whole of the City is at some measure of vulnerability to floods. An assessment of a community's vulnerability to flood begins with an understanding of local exposure to flood. This is included in the Local Concerns section below followed by a discussion of the City's Assets at Risk to this hazard.

Local Concerns

The City has specific concerns and unique vulnerabilities regarding this hazard. These concerns form a portion of the basis for the mitigation strategy and mitigation actions that seek to reduce risk and vulnerability to this hazard.

Snowmelt floods on the Sacramento and the San Joaquin Rivers and their higher elevation tributaries can be expected to occur during the period from April through June. Although snowmelt flooding is of much larger volume and longer duration than flooding from rain, it does not have the high peak flows characteristic of floods from rain. Snowmelt flood runoff is sometimes augmented by late spring rains on the snowfields or lower elevation tributary watersheds.

**OTHER VULNERABILITIES/CONCERNS/ISSUES/PROBLEM AREAS SPECIFIC TO THE CITY?
CAN THE CITY PROVIDE DETAILS ON THE ROOT CAUSE/PROBLEM DESCRIPTION OF FLOOD
ISSUES THAT WILL SUPPORT MITIGATION ACTION DEVELOPMENT?**

Assets at Risk

Assets at risk from flood include people and populations; structures; critical facilities and infrastructure; and natural, historic, and cultural resources. These are discussed in the following sections.

People and Populations

All people and populations located in the 1% annual chance floodplains are at some risk to flooding. Certain vulnerable populations located within areas prone to flooding may be at increased risk to this hazard, especially during a large event with minimal advance notice. These vulnerable populations include: the unsheltered, those with limited mobility, and those that lack the resources to leave the area.

City residents that live in the 1% % annual chance floodplains are often the most vulnerable. Not only are the residents at risk, but their homes and contents are all at risk, compounding the impacts associated with significant hazard events. To further evaluate the impact to the City of Isleton’s residential population residing within these hazard areas, the DFIRM flood zones were overlayed on the parcel layer. Those residential parcels that intersect the flood zones were counted and multiplied by the 2023 Census Bureau average household factors for the City of Isleton – 3.18. According to this analysis, there is a total population of 792 and 0 residents of the City at risk to flooding in the 1% and 0.2% annual chance floodplains, respectively. This is shown in Table 1-21.

Table 1-21 City of Isleton – Improved Residential Parcels and Population by Summary FEMA DFIRM Flood Zone

Jurisdiction	1% Annual Chance		0.2% Annual Chance*	
	Improved Residential Parcels	Population at Risk	Improved Residential Parcels	Population at Risk
Isleton	249	792	0	0

Source: FEMA DFIRM 02/2024, 2025 Sacramento County Parcel/Assessor Data, 2020 US Census Bureau Average Household Size – City of Isleton (3.18)

*This parcel count only includes those parcels in the 0.2% annual chance flood zone, exclusive of the 1% annual chance flood zone. The 0.2% annual chance flood, in actuality, also includes all parcels in the 1% annual chance flood zone.

The City noted that the Critical Facilities and Infrastructure section below includes the facilities used by At-Risk populations that are threatened by this hazard. While this is not specific to what special populations reside in the City, it does speak to facilities that area used to serve (portions) of this population.

Structures

Large flood events can affect the built environment of the City. Certain structures in the City are at risk of DFIRM flooding and primarily include those structures located within the 1% and 0.2% annual chance floodplains. The vulnerability of structures depends on flood depths and can range from slight damage to totally inundated in extreme events.

GIS was used to determine the possible impacts of flooding on parcels and structures within the City of Isleton. The methodology described in Section 4.3.11 of the Base Plan was followed in determining structures and values at risk to the 1% annual chance flood event. Table 1-22 is a summary table for the City of Isleton. Parcel counts, land and improved values (i.e., those with a structure improvement on the parcel), estimated content replacement values, and total values in the City are shown for the 1% and 0.2% annual chance flood zones, as well as for those properties that fall within Other areas of the FEMA DFIRM flood zones. Table 1-23 breaks down Table 1-22 and shows the same analysis further broken out by detailed FEMA flood zone and property use.

Table 1-22 City of Isleton – Count and Value of Parcels and Structures in Summary DFIRM Flood Zones

Flood Zone	Total Parcel Count	Improved Parcel Count	Total Land Value	Structure Value	Estimated Contents Value	Total Value
1% Annual Chance Flood Hazard	524	330	\$31,553,669	\$59,856,684	\$38,265,993	\$129,676,346
0.2% Annual Chance Flood Hazard	0	0	\$0	\$0	\$0	\$0
Other Areas	3	0	\$50,668	\$0	\$0	\$50,668
Isleton Total	527	330	\$31,604,337	\$59,856,684	\$38,265,993	\$129,727,014

Source: FEMA DFIRM 02/2024, 2025 Sacramento County Parcel/Assessor Data

*With respect to improve parcels within the floodplain, the actual structures on the parcels may not be located within the actual floodplain, may be elevated and or otherwise outside of the identified flood zone

**This parcel count only includes those parcels in the 0.2% annual chance flood zone, exclusive of the 1% annual chance flood zone. The 0.2% annual chance flood, in actuality, also includes all parcels in the 1% annual chance flood zone.

Table 1-23 City of Isleton – Count and Values of Parcels and Structures by Detailed DFIRM Flood Zone and Property Use

Flood Zone / Property Use	Total Parcel Count	Improved Parcel Count	Total Land Value	Structure Value	Estimated Contents Value	Total Value
1% Annual Chance Flood Hazard						
Zone AE						
Agricultural	1	0	\$35,511	\$0	\$0	\$35,511
Care / Health	0	0	\$0	\$0	\$0	\$0
Church / Welfare	8	8	\$375,272	\$899,412	\$899,412	\$2,174,096

Flood Zone / Property Use	Total Parcel Count	Improved Parcel Count	Total Land Value	Structure Value	Estimated Contents Value	Total Value
Industrial	6	6	\$2,984,575	\$2,013,050	\$3,019,575	\$8,017,200
Miscellaneous	21	0	\$927,224	\$0	\$0	\$927,224
Office	6	5	\$541,694	\$1,001,024	\$1,001,024	\$2,543,742
Public / Utilities	25	0	\$18	\$0	\$0	\$18
Recreational	0	0	\$0	\$0	\$0	\$0
Residential	251	249	\$18,644,115	\$45,167,681	\$22,583,841	\$86,395,637
Retail / Commercial	60	57	\$3,400,504	\$10,762,141	\$10,762,141	\$24,924,786
Unknown	0	0	\$0	\$0	\$0	\$0
Vacant	146	5	\$4,644,756	\$13,376	\$0	\$4,658,132
1% Annual Chance Flood Hazard Total	524	330	\$31,553,669	\$59,856,684	\$38,265,993	\$129,676,346
Other Areas						
Zone X (unshaded)						
Agricultural	0	0	\$0	\$0	\$0	\$0
Care / Health	0	0	\$0	\$0	\$0	\$0
Church / Welfare	0	0	\$0	\$0	\$0	\$0
Industrial	0	0	\$0	\$0	\$0	\$0
Miscellaneous	1	0	\$35,475	\$0	\$0	\$35,475
Office	0	0	\$0	\$0	\$0	\$0
Public / Utilities	1	0	\$193	\$0	\$0	\$193
Recreational	0	0	\$0	\$0	\$0	\$0
Residential	0	0	\$0	\$0	\$0	\$0
Retail / Commercial	0	0	\$0	\$0	\$0	\$0
Unknown	0	0	\$0	\$0	\$0	\$0
Vacant	1	0	\$15,000	\$0	\$0	\$15,000
Other Areas Total	3	0	\$50,668	\$0	\$0	\$50,668
Isleton Total	527	330	\$31,604,337	\$59,856,684	\$38,265,993	\$129,727,014

Source: FEMA DFIRM 02/2024, 2025 Sacramento County Parcel/Assessor Data

*With respect to improve parcels within the floodplain, the actual structures on the parcels may not be located within the actual floodplain, may be elevated and or otherwise outside of the identified flood zone

**This parcel count only includes those parcels in the 0.2% annual chance flood zone, exclusive of the 1% annual chance flood zone. The 0.2% annual chance flood, in actuality, also includes all parcels in the 1% annual chance flood zone.

Table 1-24 summarizes Table 1-23 and shows City of Isleton loss estimates and improved values at risk by FEMA 1% and 0.2% annual chance flood zones. According to Table 1-23 and Table 1-24, the City of Isleton has 330 parcels and \$98.1 million of structure and contents values or values in the 1% annual chance flood zone. The City has no improved parcels in the 0.2% annual chance floodplain (so no analysis is discussed here) These values can be refined a step further. Applying the 20 percent damage factor as previously described in Section 4.3.11 of the Base Plan, there is a 1% chance in any given year of a flood event causing \$19.2 million in damage. The loss ratio of 20.0% indicates that flood losses for 1% annual chance flooding would be devastating and the City would likely be unable to recover.

Table 1-24 City of Isleton – Flood Loss Estimates

Flood Zone	Total Parcel Count	Imp. Parcel Count	Improved Structure Value	Estimated Contents Value	Total Value	Loss Estimate	Loss Ratio
1% Annual Chance Flood Hazard	524	330	\$59,856,684	\$38,265,993	\$98,122,677	\$19,624,535	20.0%
0.2% Annual Chance Flood Hazard**	0	0	\$0	\$0	\$0	\$0	0.0%
Total	524	330	\$59,856,684	\$38,265,993	\$98,122,677	\$19,624,535	20.0%

Source: FEMA DFIRM 02/2024, 2025 Sacramento County Parcel/Assessor Data

*With respect to improve parcels within the floodplain, the actual structures on the parcels may not be located within the actual floodplain, may be elevated and or otherwise outside of the identified flood zone

**This parcel count only includes those parcels in the 0.2% annual chance flood zone, exclusive of the 1% annual chance flood zone. The 0.2% annual chance flood, in actuality, also includes all parcels in the 1% annual chance flood zone.

Insurance Coverage, Claims Paid, and Repetitive Losses

Standard property insurance does not include flood coverage because of the relatively high risk. The National Flood Insurance Program (NFIP) provides flood insurance to residents in those communities that participate in the NFIP. Federal financial assistance requires the purchase of flood insurance for structures located within a 100-year floodplain – a requirement that affects nearly all mortgages financed through commercial lending institutions. Flood insurance is also recommended for all structures protected by levees, even if not mapped within a floodplain.

The City of Isleton joined the National Flood Insurance Program (NFIP) on December 1, 1978. The City does not participate in CRS program. NFIP data provided by FEMA CIS indicates that as of February 2, 2026, there were 50 flood insurance policies in force in the City with \$12,068,000 of coverage. There have been 23 historical claims for flood losses totaling \$467,013.07. Of these, 15 were in an A zones, one in a D zone, and 4 were in B, C, or X zones (with 2 unknown). 18 of the claims were for pre-FIRM structures, while 3 were for post-FIRM structures in the B, C, or X zone (with 2 unknown). There have been 7 substantial damage claims since 1978. NFIP data further indicates that there is 1 repetitive loss (for which property use data was not available from FEMA) and 0 severe repetitive loss buildings in the City. Data provided by FEMA Region IX noted that this was a Single Family home.

Based on this analysis of insurance coverage, the City has values at risk to the 1% annual chance and greater floods. Of the 330 improved parcels within the 1% annual chance flood zone, 49 of those parcels maintain flood insurance. This can be seen on Table 1-25.

Table 1-25 City of Isleton – Percentage of Policy Holders to Improved Parcels in the 1% Annual Chance Floodplain

Jurisdiction	Improved Parcels in SFHA (1% Annual Chance) Floodplain*	Insurance Policies in the SFHA (1% Annual Chance) Floodplain	Percentage of 1% Annual Chance Floodplain Parcels Currently Insured
Isleton	330	49	14.9%

Source: FEMA DFIRM 02/2024, FEMA CIS 2025, 2025 Sacramento County Parcel/Assessor's Data

Critical Facilities and Infrastructure

1% and 0.2% annual chance flooding presents a threat to critical facilities and infrastructure. Damage to any one of these systems can threaten public safety, wreak havoc on daily life, impact properties far from flood zones, and result in economic impacts to the City. The following analysis was performed on the critical facility inventory in the City to determine which critical facilities fall into each FEMA DFIRM flood zone. Using GIS, the FEMA DFIRM flood zones were overlayed on the critical facility GIS layer. This is shown on Figure 1-18 for the FEMA DFIRM flood zones. Table 1-26 details which critical facilities fall in which FEMA DFIRM flood zones. As shown, all but one critical facility fall in the 1% annual chance flood zone.

Figure 1-18 City of Isleton – Critical Facilities in FEMA DFIRM Flood Zones

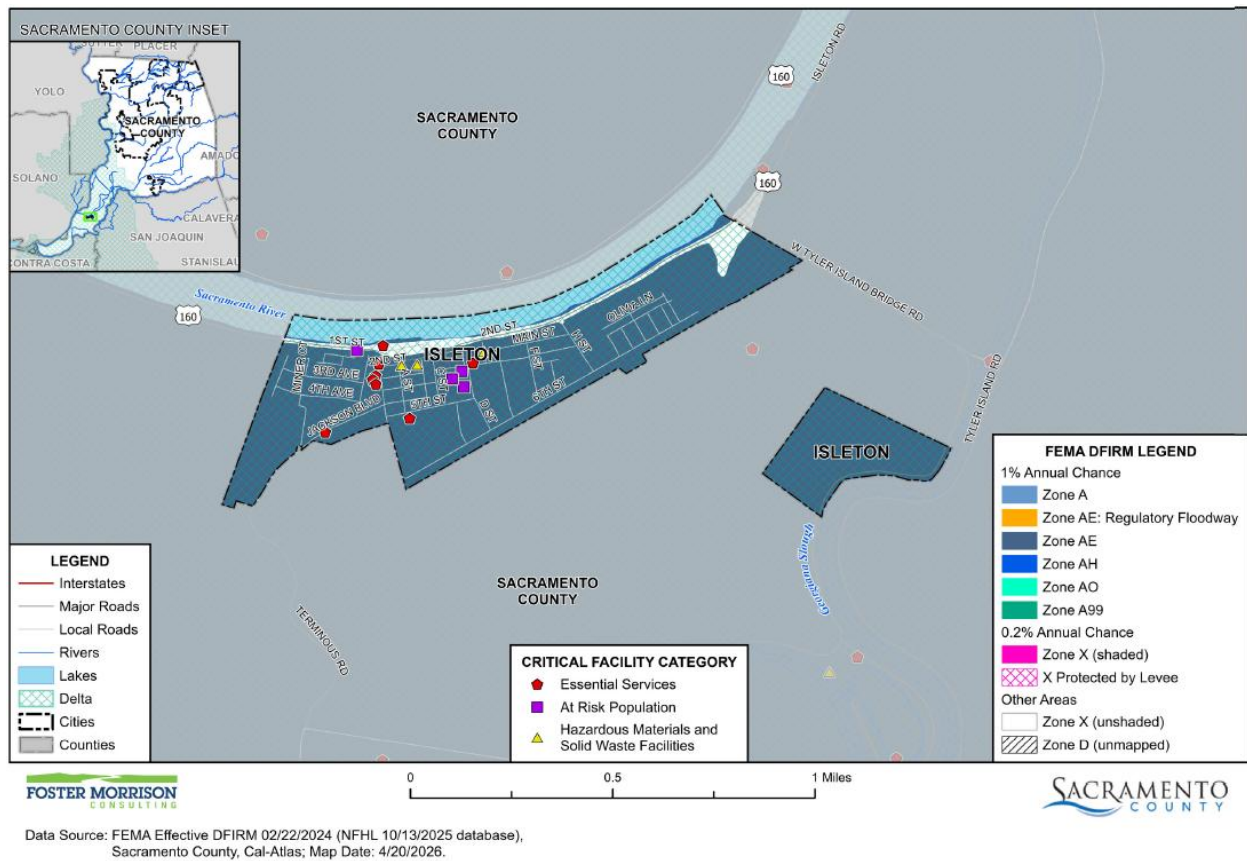


Table 1-26 City of Isleton – Critical Facilities by Category and Type in FEMA DFIRM Flood Zones

Jurisdiction /Flood Zone	Critical Facility Category /Critical Facility Type	Facility Count
1% Annual Chance Flood Hazard		
Zone AE	<i>Essential Services Facilities</i>	
	Emergency Evacuation Center	1
	EMS Stations	1
	Fire Station	2
	Law Enforcement	1
	Microwave Service Towers	2
	Water Well	1
	<i>Essential Services Facilities Total</i>	8
	<i>At Risk Population Facilities</i>	
	Day Care Center	1
	Mobile Home Parks	1
	School	2
	<i>At Risk Population Facilities Total</i>	4

Jurisdiction /Flood Zone	Critical Facility Category /Critical Facility Type	Facility Count
	<i>Hazardous Materials and Solid Waste Facilities</i>	
	Leaky Underground Storage Tank	3
	<i>Hazardous Materials and Solid Waste Facilities Total</i>	<i>3</i>
	Total	15
1% Annual Chance Flood Hazard Total		15
Other Areas		
Zone X (unshaded)	<i>Essential Services Facilities</i>	
	Water Well	1
	<i>Essential Services Facilities Total</i>	<i>1</i>
	Total	1
Other Areas Total		1
Isleton Total		16

Source: FEMA DFIRM 02/2024, City of Isleton

Natural, Historic, and Cultural Resources

Large flood events can affect natural, historic, and cultural resources. There are a number of ways floodwaters can impact natural resources and the environment. Wildlife habitats can be destroyed by floodwaters. Contaminated floodwater can pollute rivers and habitats. Silt and sediment can destroy natural areas. Riverbanks and natural levees can be eliminated as rivers reach bankfull capacity. Rivers can be widened, and deposition can increase downstream. Trees can be uprooted by high-velocity water flow. Plants that survived the initial flood may die due to being inundated with water. Historic and cultural resources may also be affected. Generally, the impacts are associated with damage to structures within the flooded areas, but other cultural resources such as those associated with Native Americans and old tribal areas can also be disturbed, damaged and lost during extreme flood events. Any of these that fall in the flood zones shown on Figure 1-15 would be vulnerable.

Impacts from Flood: 1%, 0.5%,and 0.2% Annual Chance

Floods are among the costliest natural disasters in terms of human hardship and economic loss nationwide. Large flood events, including those associated with 1% annual chance floods, can cause substantial damage to structures, landscapes, and utilities as well as life safety issues. People may be swept away in floodwaters, causing injuries or deaths. Floods can be extremely dangerous, and even six inches of moving water can knock over a person given a strong current. During a flood, people can also suffer heart attacks or electrocution due to electrical equipment short outs. Direct impacts, such as drowning, can be limited with adequate warning and public education about what to do during floods. Floodwaters can transport large objects downstream which can damage or remove stationary structures. Structures can be damaged directly from floodwaters and can also be damaged from trees falling as a result of water-saturated soils. Ground saturation can result in instability, collapse, or other damage. Objects can also be buried or destroyed through sediment deposition. Floodwaters can also break utility lines and interrupt services causing power outages. The interruption of power causes major problems and can result in the closure of

governmental offices and community businesses. Public schools may also be required to close or be placed on a delayed start schedule. Roads can be damaged and closed, causing safety and evacuation issues.

Standing water can cause damage to crops, roads, foundations, and electrical circuits. Other problems connected with flooding and stormwater runoff include erosion, sedimentation, degradation of water quality, loss of environmental resources, and economic impacts.

Impacts that are not quantified, but can be anticipated in large future events, include:

- Injury and loss of life;
- Commercial and residential structural and property damage;
- Disruption of and damage to public infrastructure, utilities, and services;
- Damage to roads/bridges resulting in loss of mobility;
- Significant economic impact (jobs, sales, tax revenue) to the community; and
- Negative impact on commercial and residential property values

Health Hazards from Flooding

Certain health hazards are also common to flood events. While such problems are often not reported, three general types of health hazards accompany floods. The first comes from the water itself. Floodwaters carry anything that was on the ground that the upstream runoff picked up, including dirt, oil, animal waste, and lawn, farm and industrial chemicals. Pastures and areas where cattle and hogs are kept or their wastes are stored can contribute polluted waters to the receiving streams.

Floodwaters also saturate the ground, which leads to infiltration into sanitary sewer lines. When wastewater treatment plants are flooded, there is nowhere for the sewage to flow. Infiltration and lack of treatment can lead to overloaded sewer lines that can back up into low-lying areas and homes. Even when it is diluted by flood waters, raw sewage can be a breeding ground for bacteria such as e. coli and other disease-causing agents.

The second type of health problems arise after most of the water has gone. Stagnant pools can become breeding grounds for mosquitoes, and wet areas of a building that have not been properly cleaned breed mold and mildew. A building that is not thoroughly cleaned becomes a health hazard, especially for small children and the elderly.

Another health hazard occurs when heating ducts in a forced air system are not properly cleaned after inundation. When the furnace or air conditioner is turned on, the sediments left in the ducts are circulated throughout the building and breathed in by the occupants. If a city or county water system loses pressure, a boil order may be issued to protect people and animals from contaminated water.

The third problem is the long-term psychological impact of having been through a flood and seeing one's home damaged and irreplaceable keepsakes destroyed. The cost and labor needed to repair a flood-damaged home puts a severe strain on people, especially the unprepared and uninsured. There is also a long-term problem for those who know that their homes can be flooded again. The resulting stress on floodplain residents takes its toll in the form of aggravated physical and mental health problems.

Impacts to identified assets at risk to this hazard and the overall vulnerability of the City may be affected in the future by climate change (which was discussed in the hazard profile discussion above), changes in population patterns (migration, density, or the makeup of socially vulnerable populations), and changes in land use and development. These are discussed further below.

Future Conditions/Future Development

This section provides a discussion of how future conditions will influence or affect the hazard over time and also discusses future development relative to each hazard.

Future Conditions

Future conditions may be affected by climate change, changes in population patterns (migration, density, or the makeup of socially vulnerable populations), and changes in land use and development. Findings on this for the City of Isleton include the following:

- Climate change is likely to exacerbate future flood conditions and associated impacts and vulnerability of the City to 1% and 0.2% annual chance flooding. This was discussed in greater detail in the Climate Change and Flood section of the Hazard Profile above.
- Future population growth should be considered, as having more or less people in a community affects the overall hazard vulnerability to the City. The City has been shrinking since 1970 and that trend is expected to continue. However, vulnerable population groups could face disproportionate effects from flooding and should be planned for. Changes in population and population patterns may or may not increase the impacts and vulnerability of the City to this hazard depending on the location and nature of growth and continued planning for future hazard conditions and the location of future flood events.
- Land use planning should be proactive to address future hazard conditions. City building codes and the City's floodplain ordinance are in effect to reduce this risk and should be updated as necessary to continue to address future flood conditions. As such, changes in land use and future development may or may not increase the impacts and vulnerability of the City to this hazard depending on the location and nature of growth and continued planning for future hazard conditions and the location of future flood events.

Future Development

This section provides an analysis of the flood hazard and proposed future development within the City based on FEMA floodplains and also discusses considerations in evaluating future flooding conditions.

Future Development: General Considerations

Communities that participate in the NFIP adopt regulations and codes that govern development in special flood hazard areas (SFHAs) and enforce those requirements through their local floodplain management ordinances through the issuance of permits. The City's floodplain management ordinance provides standards for development, subdivision of land, construction of buildings, and improvements and repairs to buildings that meet or exceed the minimum requirements of the NFIP.

The International Residential Code (IRC) and International Building Code (IBC), by reference to ASCE 24, include requirements that govern the design and construction of buildings and structures in flood hazard

areas. FEMA has determined that the flood provisions of the I-Codes are consistent with the requirements of the NFIP (the I-Code requirements either meet or exceed NFIP requirements). ASCE 7 and ASCE 24, design standards developed by the American Society of Civil Engineers, expands on the minimum NFIP requirements with more specificity, additional requirements, and some limitations. Adoption of latest edition of the California Building Standards Code (CBSC), the 2025 triennial edition is based on the 2024 IBC and 2024 IRC, with an effective date of January 1, 2026. The previous edition was the 2022 triennial edition, based on the 2021 IBC and 2021 IRC and was effective from 1/1/2023 until 12/31/2025. CA DWR has also developed a California State Model Flood Damage Prevention Ordinance to work with the flood provisions of the CBSC (CCR Title 24) for buildings and structures in special flood hazard areas. CA DWR has also prepared sample language to modify local floodplain management regulations.

With the adoption of the CBSC and the International Codes, communities are moving towards a more stringent approach to regulatory floodplain management, beyond the minimum requirements of the NFIP. The adoption and enforcement of disaster-resistant building codes is a core community action to promote effective mitigation. When communities ensure that new buildings and infrastructure are designed and constructed in accordance with national building codes and construction standards, they significantly increase local resilience now and in the future. With continued advancements in building codes, local ordinances should be reviewed and updated to meet and exceed standards as practicable to protect new development from future flood events and to further promote disaster resiliency.

One of the most effective ways to reduce vulnerability to potential flood damage is through careful land use planning that fully considers applicable flood management information and practices. Master planning will also be necessary to assure that open channel flood flow conveyances serving the smaller internal streams and drainage areas are adequately prepared to accommodate the flows. Preservation and maintenance of natural and riparian areas should also be an ongoing priority to realize the flood control benefits of the natural and beneficial functions of these areas.

The potential for flooding may increase as floodwaters are channeled due to land development. Such changes can exacerbate flooding problems inside and outside of natural floodplains by altering or confining natural drainage channels. Floodplain modeling and master planning should be based on built out property use to ensure that all new development remains safe from future flooding. While local floodplain management, stormwater management, and water quality regulations and policies address these changes on a site-by-site basis, their cumulative effects can have a negative impact on the overall floodplain.

The City enforces its floodplain management ordinance. If any development is to occur in the floodplain, it would have to conform to the elevation and other standards of the floodplain ordinance. More detail on the specifics of the floodplain ordinance can be found in the Capability section below.

Future development areas and their vulnerability to 1% and 0.2% annual chance flood are discussed further in the below GIS analysis.

GIS Analysis

The City provided X future development areas which were used as the basis for the inventory of future development for the City. These areas were mapped in GIS. Utilizing the future development area spatial

layer, the parcel polygon data was intersected to determine the future development areas within each DFIRM flood zone. Figure 1-19 shows the locations of the future development area overlayed on the DFIRM flood zones. Some of these future development areas fall within the mapped flood areas as shown on Table 1-27. As shown in the map and table, three of these future development areas sit in the 1% annual chance flood zone, while three more sit in the 0.2% annual chance flood zone.

Figure 1-19 City of Isleton – Future Development Areas in FEMA DFIRM Flood Zones

Table 1-27 City of Isleton – Future Development Area Acres and Parcels in FEMA DFIRM Flood Zones

Source: FEMA DFIRM 02/2024, City of Isleton

Flood: Localized Stormwater Flooding

Likelihood of Future Occurrence–Likely

Vulnerability–Medium

Hazard Profile

Flooding occurs in areas other than the FEMA mapped 1%, 0.5%, and 0.2% annual chance floodplains. Flooding may be from drainages not studied by FEMA, lack of or inadequate drainage infrastructure, or inadequate maintenance. Localized, stormwater flooding occurs throughout the City, during the rainy season from November through April. Prolonged heavy rainfall (including that from atmospheric river events) contributes to a large volume of runoff resulting in high peak flows of moderate duration. Rain on snow events occurring in the upper elevations can also be significant and contribute to greater downstream runoff and flooding during large storm events.

Location and Extent

The City of Isleton is subject to localized flooding throughout the City. Areas prone to localized flooding are included in Table 1-28 below. Flood extents are usually measured in areas affected, velocity of flooding, and depths of flooding. Expected flood depths in the City vary by location. Flood durations in the City tend to be short to medium term, or until either the storm drainage system can catch up or flood waters move downstream. Localized flooding in the City tends to have a shorter speed of onset, especially when antecedent rainfall has soaked the ground and reduced its capacity to absorb additional moisture.

Past Occurrences

Disaster Declaration History

There have been no state or federal disaster declarations from localized floods. There would most likely have been localized flood events during the disaster declarations from flood as shown in the previous 1%/0.5%/0.2% annual chance flood section. Some of these events may have affected the City.

NCDC Events

The NCDC occurrences of localized flooding are included in the 1%, 0.5%, and 0.2% annual chance flood hazard profile above where past flood events were noted.

City of Isleton Events

The City noted that the times of flooding and localized flooding have coincided. These were discussed in the Past Occurrences Section of the Flood: 1%, 0.5%, and 0.2% annual chance flood section above.

In addition, the City noted the following areas where localized flooding occurs almost yearly:

- During heavy rainfall, Isleton has three areas of concern as detailed in the above table. At Jackson and 4th, there is a drainage inlet that gets overwhelmed with runoff and causes ponding that reaches into the intersection. At Highway 160 and A St. there is another drainage inlet that gets overwhelmed with rain water that causes 160 to flood. On Union St. between D St and E St the City has problems with ponding due to excessive runoff.
- In addition, the East Isleton area/rural region has localized flooding which is widespread but generally minor; the flat land causes floodwaters to spread out reducing threats to life. These areas of potential concern are included in Table 1-28. In this area, roadside ditches and culverts lack capacity and are prone to blockages from debris. In addition, the southern edge of the town is very vulnerable to flooding.

Climate Change and Localized Flood

It is likely that climate change will increase the chance of future occurrence as well as future impacts from localized flood. More information on future impacts to the City can be found in the Future Conditions/Future Development section of the Vulnerability Assessment below.

Even if average annual rainfall may decrease slightly, the intensity of individual rainfall events is likely to increase during the 21st century, increasing the likelihood of overwhelming stormwater systems built to historical rainfall averages. This makes localized flooding more likely.

Vulnerability to Localized Flood

Flood vulnerability and their impacts vary by location and severity of any given flood event and will likely only affect certain areas of the City during specific times. Based on the risk assessment, it is evident that floods will continue to have potentially significant impacts to certain areas of the City. However, while flooding can cause significant impacts, depending on the duration and volume of precipitation and the drainage in any given area, many of the floods in the City are minor, localized flood events that are more of a nuisance than a disaster.

Many areas of the City are at some measure of vulnerability to localized flooding. An assessment of a community's vulnerability to localized flooding begins with an understanding of local exposure to localized flooding. This is included in the Local Concerns section below followed by a discussion of the City's Assets at Risk to this hazard.

Local Concerns

The City has specific concerns and unique vulnerabilities regarding this hazard. These concerns form a portion of the basis for the mitigation strategy and mitigation actions that seek to reduce risk and vulnerability to this hazard.

Historically, the City has been affected by flooding of streams and creeks occurring during heavy rain and storm (including atmospheric river) events. Additional development in the City and in the watersheds of these streams affects both the frequency and duration of damaging floods through an increase in stormwater runoff and contributes to localized flooding occurring in areas throughout the City. The lack of or inadequate drainage infrastructure in the City contributes to localized flooding issues

The City tracks localized flooding areas. Affected localized flood areas identified by the City of Isleton are summarized in Table 1-28.

Table 1-28 City of Isleton – List of Localized Flooding Problem Areas

Road Name	Flooding	Pavement Deterioration	Washout	High Water	Landslide/ Mudslide	Debris	Downed Trees
Jackson Blvd	X			X			
Hwy 160	X	X		X			
Union St	X	X		X			

Source: City of Isleton

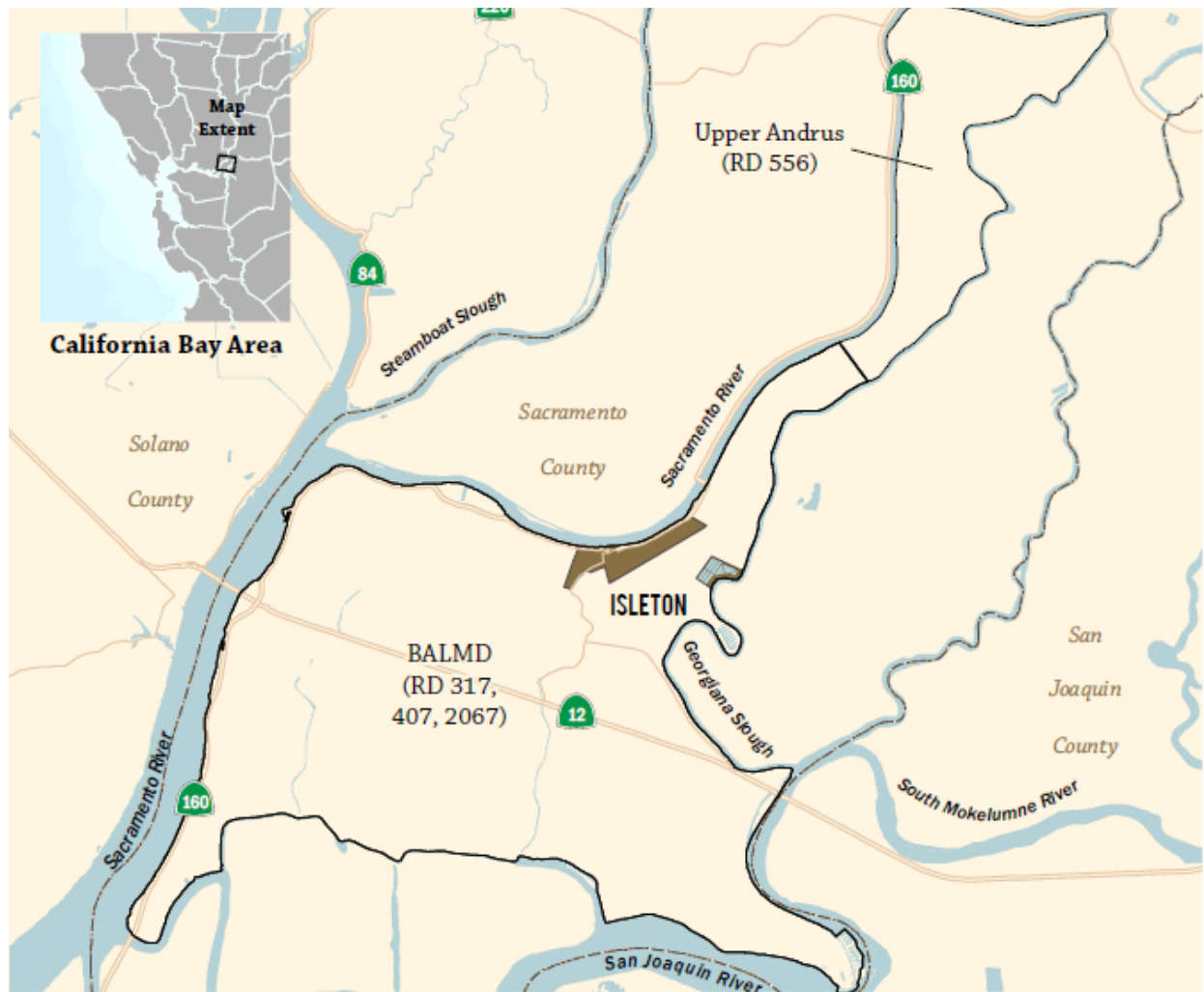
The 2017 Isleton Opportunities, Constraints, and Vision report noted that surface water drainage consists of a traditional above-ground curb and gutter collection system and some underground facilities. Much of the City street system has curb, gutter, and some drop inlets installed with ultimate disposal to major drainage ditches south of the city. Where curb, gutter, and drop inlets are missing, drainage occurs by gravity flow to the lowest points along the street system and adjacent parcels.

To some extent in the City of Isleton, drainage from roofs and private properties has in the past been allowed to be funneled into the sewage collection system, adding to problems of sewage treatment during wet weather. Fortunately, much of the latter problem has been corrected by City inspection and notice to owners.

The 2017 Isleton Opportunities, Constraints, and Vision report noted that the islands of Brannan, Andrus, and Lower Andrus are represented by individual reclamation districts, each with its own elected Board of Trustees. The reclamation districts (RD) surrounding the city of Isleton include RD2067, RD317, and RD407. These agencies operate the drainage pump facilities and oversee maintenance of the primary drainage canals around Isleton. Recognizing that the levees of these three districts were interconnected and impacted each other, the oversight and maintenance of the levees protecting the three areas were legislatively vested in a single entity known as Brannan-Andrus Levee Maintenance District (BALMD).

RD407 within BALMD oversees dewatering for land areas encompassed by the Sacramento River, the RD556 cross levee, Georgiana Slough, Terminous Road, and the historical meander line of Jackson Slough.

Figure 1-20 City of Isleton – Surface Water Drainage



Source: 2017 Isleton Opportunities, Constraints, and Vision Report

The City has filed to expand its sphere of influence. Generally speaking, the sphere of influence is about a mile west of the City, to Georgiana Slough, and to about two miles east of the City.

**OTHER VULNERABILITIES/CONCERNS/ISSUES/PROBLEM AREAS SPECIFIC TO THE CITY?
CAN THE CITY PROVIDE DETAILS ON THE ROOT CAUSE/PROBLEM STATEMENTS OF
LOCALIZED FLOOD ISSUES THAT WILL SUPPORT MITIGATION ACTION DEVELOPMENT?**

Assets at Risk

Assets at risk from localized flood include people and populations; structures; critical facilities and infrastructure; and natural, historic, and cultural resources. These are discussed in the following sections.

People and Populations

People and populations (including vulnerable populations) are traditionally not highly vulnerable to localized flooding, but their structures and contents can be at risk. Localized flooding may also cause transportation issues as roads and lanes are impacted or closed and affect the ability for people to travel throughout the City.

Structures

Structures in areas with localized flooding can be affected if floodwaters intrude into the structure. Structures in low lying areas, or those with basements can be at greater risk. Buildings with older foundations that are prone to water intrusion are also at greater risk. Once water finds its way into a structure, it tends to continue to do so until the path that brings water into a structure is mitigated. Structures can also be damaged by trees that have become uprooted and fall during rain and storm events. Large trees falling onto structures can cause significant damage.

Critical Facilities and Infrastructure

Localized flooding, while often more of a nuisance, can cause damage to critical facilities and infrastructure during a heavy rain and storm event. Any facility that experiences localized flooding can be impacted. Utilities and other critical infrastructure can all be affected, causing interruptions in service until repairs can be made. For example, water and wastewater systems can be vulnerable to heavy rains and flood events. Rainfall creates a high water table, surging streams and creeks, and saturates soil. Infiltration of stormwater into water and wastewater systems may occur and presents a threat to public health and safety, when the infrastructure is no longer able to meet operational needs and local demands. Other critical facilities such as roads, bridges and other transportation facilities can also experience localized flooding causing road closures and other impacts until storm waters recede. This can result in extended road closures requiring alternate routes.

Natural, Historic, and Cultural Resources

Natural resource assets may have some vulnerabilities to localized flood during major storm events, but can benefit from floodwaters, often by design. Many parks and green spaces are designed to take overflow water and release it into the underlying soils and natural areas. Wetland areas in the City actually help reduce the risk of flooding, as they can absorb excess rainfall that would have to be drained away from impervious surfaces. Flooding can provide many benefits to the natural environment, including recharging wetlands and groundwater, increasing fish production, creating wildlife habitat, and rejuvenating soil fertility. These smaller localized flooding events often provide more benefits to the environment in comparison to negative impacts associated with large flood events. Historic and cultural resources may be at some measure of vulnerability if they are located in areas subject to repeated localized flooding.

Impacts from Localized Flood

Primary concerns associated with stormwater flooding include impacts to infrastructure that provide a means of ingress and egress throughout the community. Ground saturation can result in instability, collapse, or other damage to trees, structures, roadways and other critical infrastructure. Objects can also

be buried or destroyed through sediment deposition. Floodwaters can break utility lines and interrupt services. Standing water can cause damage to crops, roads, and foundations. Other problems connected with flooding and stormwater runoff include erosion, sedimentation, degradation of water quality, losses of environmental resources, and certain health hazards.

Life safety issues from localized flooding would be more limited. The amount and type of damage or flooding that occurs varies from year to year and from storm to storm, depending on the quantity of precipitation and runoff.

Impacts to identified assets at risk to this hazard and the overall vulnerability of the City may be affected in the future by climate change (which was discussed in the Likelihood of Future Occurrence discussion above), changes in population patterns (migration, density, or the makeup of socially vulnerable populations), and changes in land use and development. These are discussed below.

Future Conditions/Future Development

This section provides a discussion of how future conditions will influence or affect the hazard over time and also discusses future development relative to each hazard.

Future Conditions

Future conditions may be affected by climate change, changes in population patterns (migration, density, or the makeup of socially vulnerable populations), and changes in land use and development. Findings on this for the City of Isleton include the following:

- Climate change is likely to exacerbate future heavy rain conditions and associated impacts and vulnerability of the City to localized flood. This was discussed in greater detail in the Climate Change and Localized Flood section of the Hazard Profile above.
- The City is expected to continue to see population shrink. However, vulnerable population groups such as low-income individuals and households living in flood prone areas could face disproportionate effects from localized flood and should be planned for. Changes in population and population patterns may or may not increase the impacts and vulnerability of the City to this hazard depending on the location and nature of growth and continued planning for future hazard conditions and the location of future flood events.
- Land use planning should be proactive to address future hazard conditions. Locating new development, structures and critical facilities and infrastructure within or near areas of localized flooding risk may put additional development at risk. However, City building codes are in effect to reduce this risk and should be updated as necessary to continue to address future localized flood conditions. Depending on the location of new development and adherence to protective building codes, changes in land use and development may or may not increase the impacts and associated vulnerabilities of the City to this hazard.

Future Development

The City will need to be proactive to ensure that increased development has proper siting and drainage for stormwaters. The risk of localized flooding to future development can also be minimized by accurate

recordkeeping of repetitive localized storm activity. Mitigating the root causes of the localized stormwater flooding will reduce future risks of losses.

Levee Failure

Likelihood of Future Occurrence—Occasional

Vulnerability—Extremely High

Hazard Profile

A levee is a raised area that runs along the banks of a stream or canal. Levees reinforce the banks and help prevent flooding by containing higher flow events to the main stream channel. By confining the flow to a narrower stream channel, levees can also increase the speed of the water. Levees can be natural or man-made. A natural levee is formed when sediment settles on the streambank, raising the level of the land around the stream.

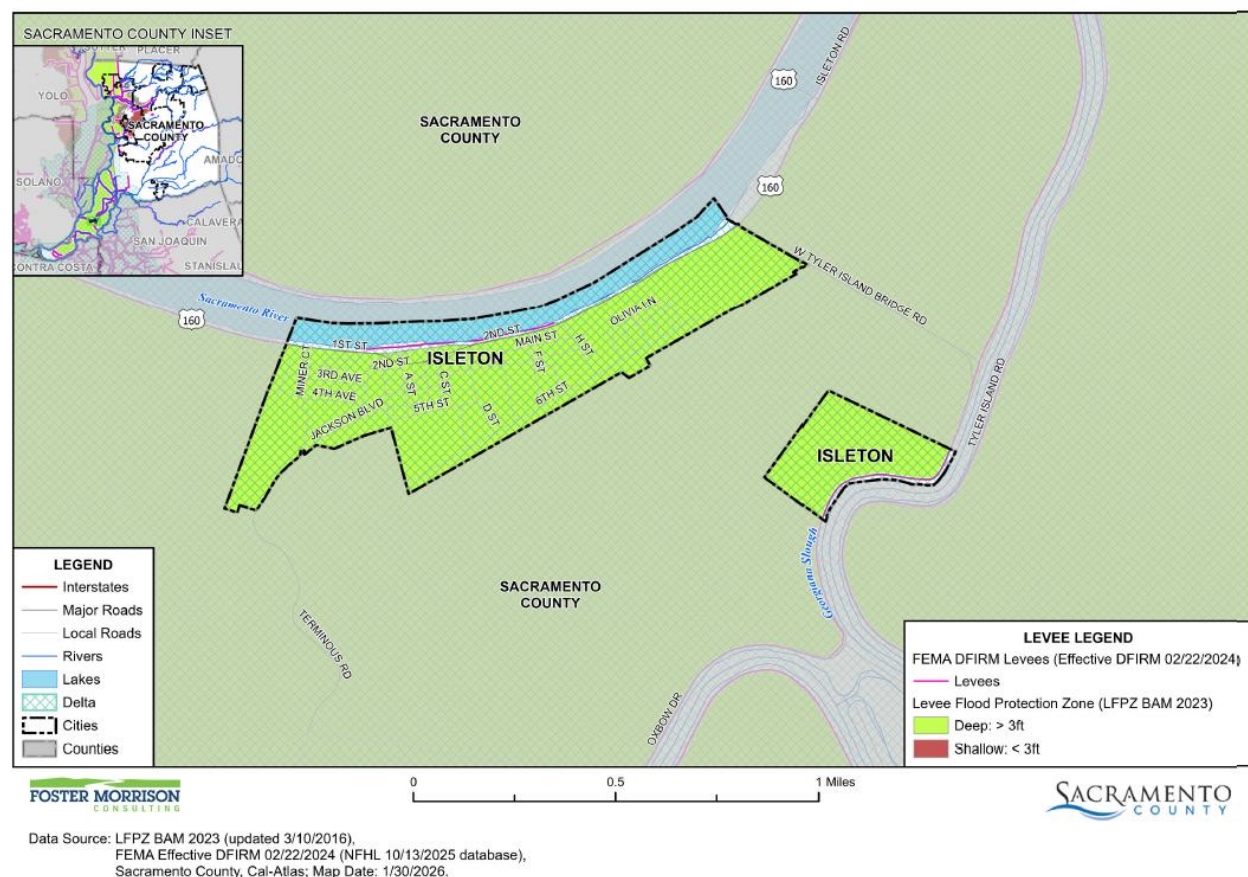
Levees provide strong flood protection, but they are not failsafe. Levees are designed to protect against a specific flood level and could be overtopped during severe weather events or a release or failure of a dam. Levees reduce, not eliminate, the risk to individuals and structures located behind them. A levee system failure or overtopping can create severe flooding and high-water velocities. It is important to remember that no levee provides protection from events for which it was not designed, and proper operation and maintenance are necessary to reduce the probability of failure.

Over 518 miles of levees are located throughout the Sacramento County Planning Area. These include both accredited and unaccredited levees, as discussed in Section 4.3.14 of the Base Plan, all which pose a risk to adjacent communities should a levee fail or overtop. While the levee analysis included in this section focuses on the accredited levees and those with improvements in process based on the DFIRM A99 and X-Protected by Levee flood zones, there are many older, unaccredited levees located throughout the County Planning Area that may have a greater potential for overtopping or breaching and pose a significant risk to communities should they fail.

Location and Extent

The whole of the City are at risk to levee failure flooding. There is not a scientific scale or measurement system in place for levee failure. It is usually measured in area covered and depth of flooding. A map of the 518 miles of levees located in the Sacramento County Planning Area is shown in Section 4.3.14 of the Base Plan. This Maps showing estimated inundation depths due to a levee failure in the County are shown on Figure 1-21. The speed of onset is slow as the river rises, but if a levee fails the warning times are short for those in the inundation area. The duration of levee failure risk times can be hours to weeks, depending on the river flows that the levee holds back. Those levees accredited as providing protection against the 1% or greater annual chance flood and those in levees in the certification process are identified in the FEMA DFIRMs which also include those areas protected by the levees. None of those protecting levees exist in the City. Therefore, no DFIRM A99 and X Protected by Levee flood zone extent maps or tables are shown here. It should be noted that these unaccredited levees may have a greater potential for failure or breach and can pose even a greater risk to those communities in which they are located.

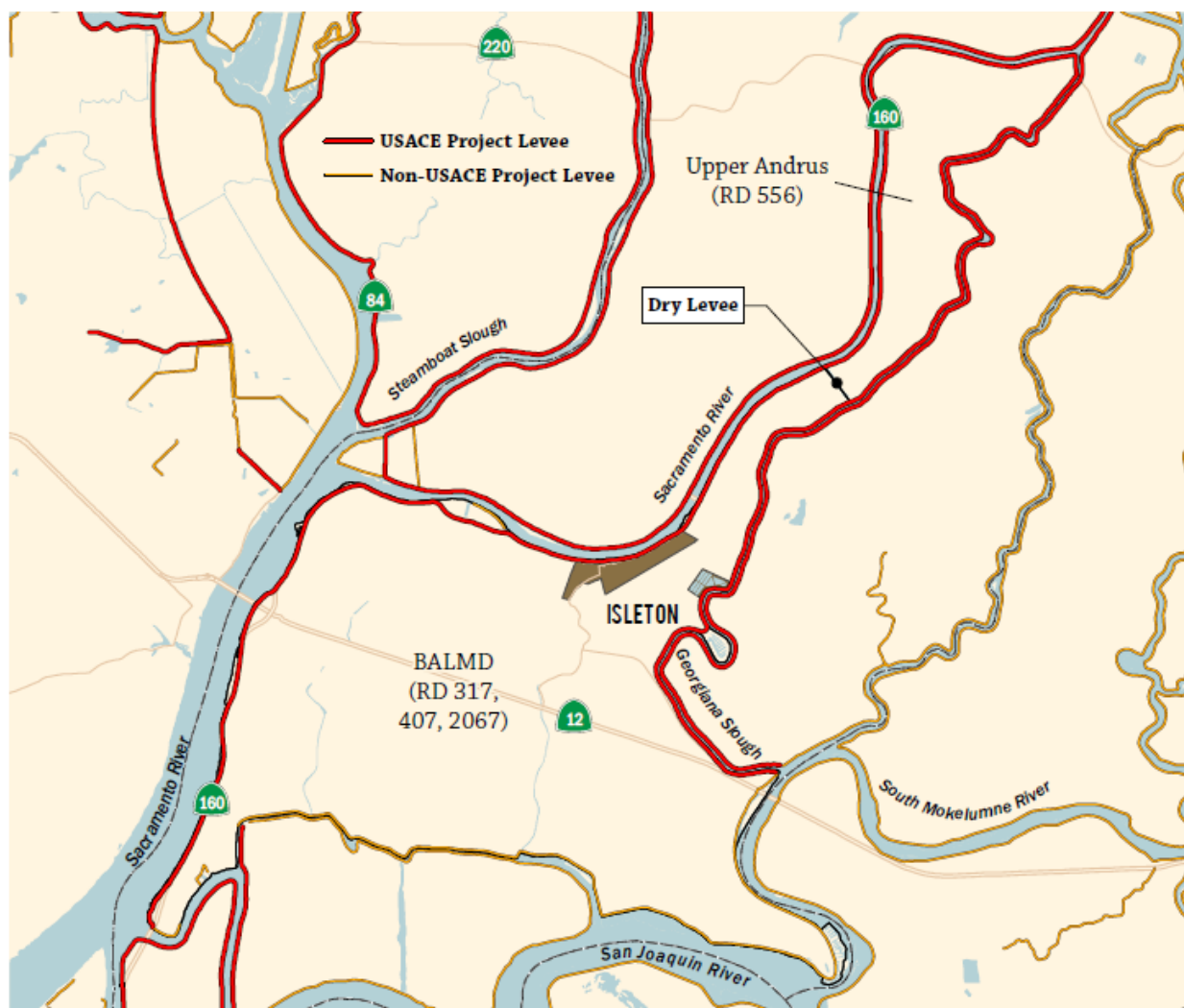
Figure 1-21 City of Isleton – Levee Flood Protection Zones



The 2017 City of Isleton Opportunities, Constraints, and Vision Report noted that the City of Isleton is protected by a system of leveed channels, multipurpose reservoirs, and other structures, which comprise the Sacramento River Flood Control Project (SRFCP). The goal of the SRFCP is to reduce the chance of flooding for communities like Isleton. Even with the realization of major physical improvements to the flood management system, the risk of flooding will continue to exist within the city.

The Brannan-Andrus Levee Maintenance District (BALMD) and Reclamation District 556 (RD 556) system of levees provide flood protection for the city of Isleton. Isleton is located along the left bank of the Sacramento River approximately 3.12 miles upstream of its confluence with Steamboat Slough. Isleton sits at an approximate elevation of +5 feet. BALMD staff monitors and maintains the levees on the island and maintains and controls the operations of the seven pumping stations to keep the island dry.

Figure 1-22 City of Isleton – Levees in and near the City



Source: 2017 City of Isleton Opportunities, Constraints, and Vision Report

Brannan-Andrus Island has a population of approximately 1,837, which is made up of a major recreation contingent and the City of Isleton. The maintenance of the levee system is critical to maintain the economy supported by over 10,856 acres of prime agricultural land and 1,500 residents. District levees protect about 1,500 residents, 613 residential structures, 33 gas wells, and approximately 9,088 acres of gas fields (Sacramento County and GEI Consulting Engineers, 2017).

Along RD 556, the flood protection facilities include the Sacramento River Unit 2, Segment 390 and Georgiana Slough Unit 1, and Segment 129 (see Figure 11). BALMD SPFC facilities include Sacramento River Unit 2, Segment 378, Georgiana Slough Unit 1, Segment 40, Mokelumne River Unit 3, Segment 1050, San Joaquin River Unit 4, Segment 1049, and Sevenmile Slough Unit 5, 1048 (see Figure 11). The Sacramento River and Georgiana Slough are project levees, and the Mokelumne and San Joaquin Rivers and Sevenmile Slough are non-project levees. These levee systems primarily protect the small communities of Isleton and the Delta Loop recreational area, in addition to other rural agricultural areas. Oxbow Marina

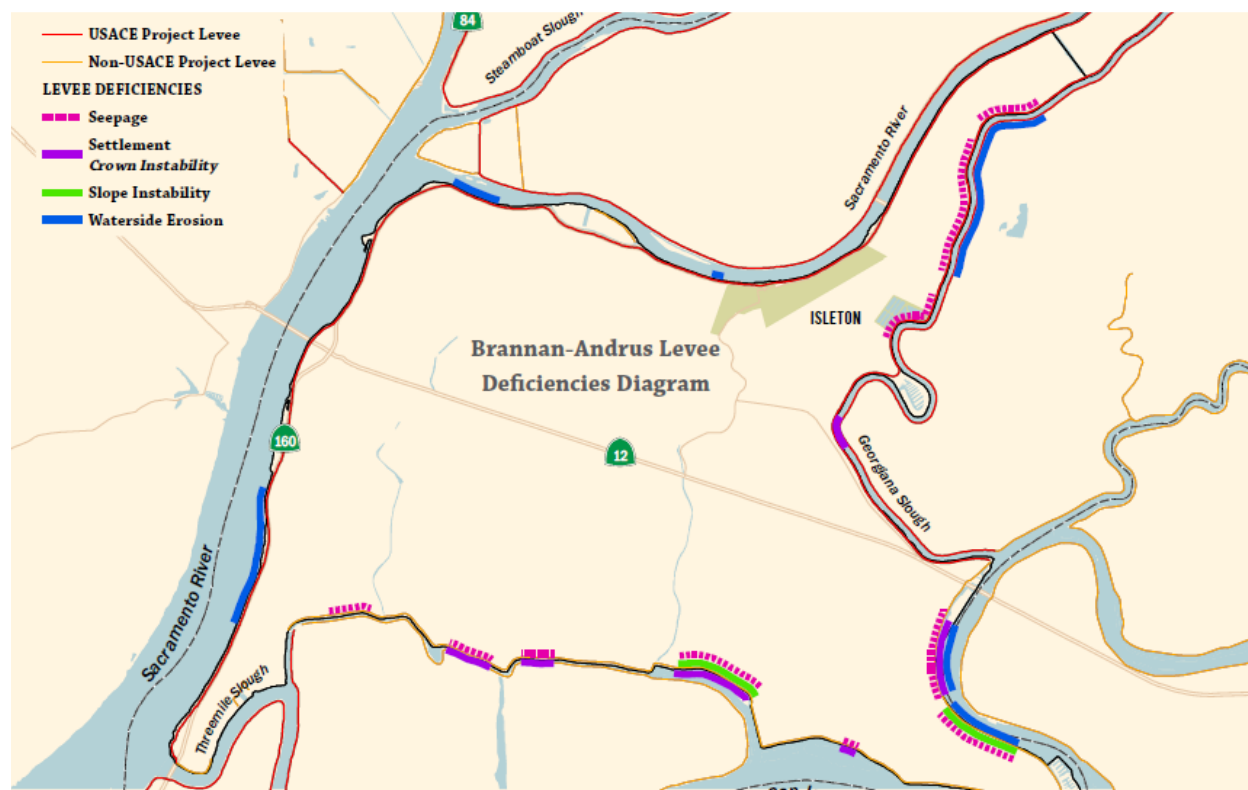
is accessed by the District's levee system. In the event of a flood, the area would be disconnected from services and the area's population would be forced to evacuate.

Isleton and the Delta Loop Recreational Area are protected by a levee system that is bordered by the Sacramento River, Georgiana Slough, Mokelumne River, San Joaquin River, and Sevenmile Slough. Oxbow Marina is outside of the flood protection system, but its access is protected by the system.

There are approximately 26.2 miles of levee that surround Brannan-Andrus Levee Maintenance District with 16.2 miles of project levees and 10 miles of non-project levees. In addition, BALMD is separated from Upper Andrus Island (RD 556) by a 0.46-mile cross levee that is owned by RD 556. RD 556 is surrounded by 11.2 miles of project levees. In the event of a levee failure and flood on RD 556, the cross levee could likely overtop and flood BALMD and the small communities of Isleton, Oxbow Marina, and the Delta Loop Recreational Area. Therefore, an evaluation is needed of the entire levee system surrounding the two districts as well as the cross levee (Sacramento County and GEI Consulting Engineers, 2017).

Most of the levees surrounding the districts do not meet the FEMA 100-year levee standard. In addition, there are several areas with Bulletin 192-82 (agricultural levee design standards) geometry deficiencies. As part of the Non-Urban Levee Evaluation (NULE) investigations, DWR analyzed the deficiencies currently (2017) associated with passing the 1957 design flow. The investigations concluded that some segments of the levees protecting Isleton, Oxbow Marina, and the Delta Loop Recreation Area suffer from under-seepage, through-seepage, landside stability, and geometry deficiencies (see Figure 1-23).

Figure 1-23 Brannan Andrus Levee Deficiencies Diagram



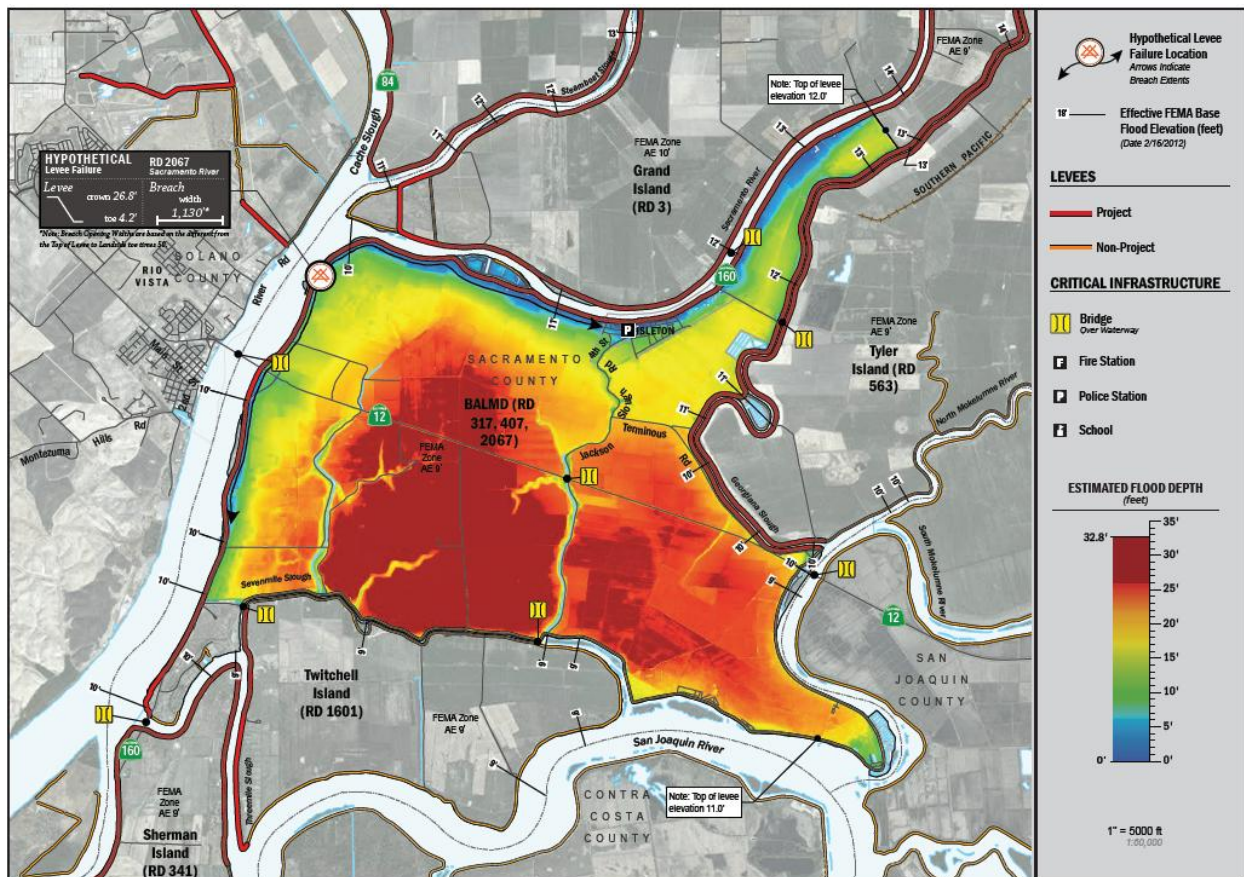
Source: 2017 City of Isleton Opportunities, Constraints, and Vision Report

The County, BALMD, and RD 556 have been active participants in DWR's Delta Flood Emergency Preparedness, Response, and Recovery Program, including activities associated with updating the Reclamation District's Flood Emergency and Safety Plans (ESPs), and Multi-Hazard Mitigation Plan (MHMP) for each of the County's RDs/Levee Maintaining Agencies (LMAs) located in the Delta. The ESPs and MHMPs for each of the RDs/LMAs in the Sacramento-San Joaquin Delta have been prepared and updated as non-structural measures to improve flood emergency preparedness, response, and recovery actions for each of the communities and adjoining agricultural areas. Simulated levee breaches of the State Plan of Flood Control (SPFC) levee sections indicating timing and potential deep flooding conditions have been developed for each of the RDs/LMAs inclusive of all the small communities and adjoining agricultural areas in the Delta, including the Isleton region.

The BALMD ESP provides mapping to show the projected flood depth and flood timing if a levee protecting BALMD were to fail. There were three hypothetical levee failure "breach" model scenarios provided for BALMD. The first scenario model was on the left bank of the Sacramento River across from Rio Vista. Tidal conditions as well as flows from the Yolo Bypass greatly impact the results of the levee failure in this location. The second scenario model was on the right bank of the Mokelumne River downstream of the confluence with Georgiana Slough. The third scenario model was on the right bank of the Sacramento River upstream of the city of Isleton and downstream of the cross levee. The criteria to approximate the hypothetical levee failure opening in the hydraulic model was developed by the DWR and USACE (Sacramento County and GEI Consulting Engineers, 2017).

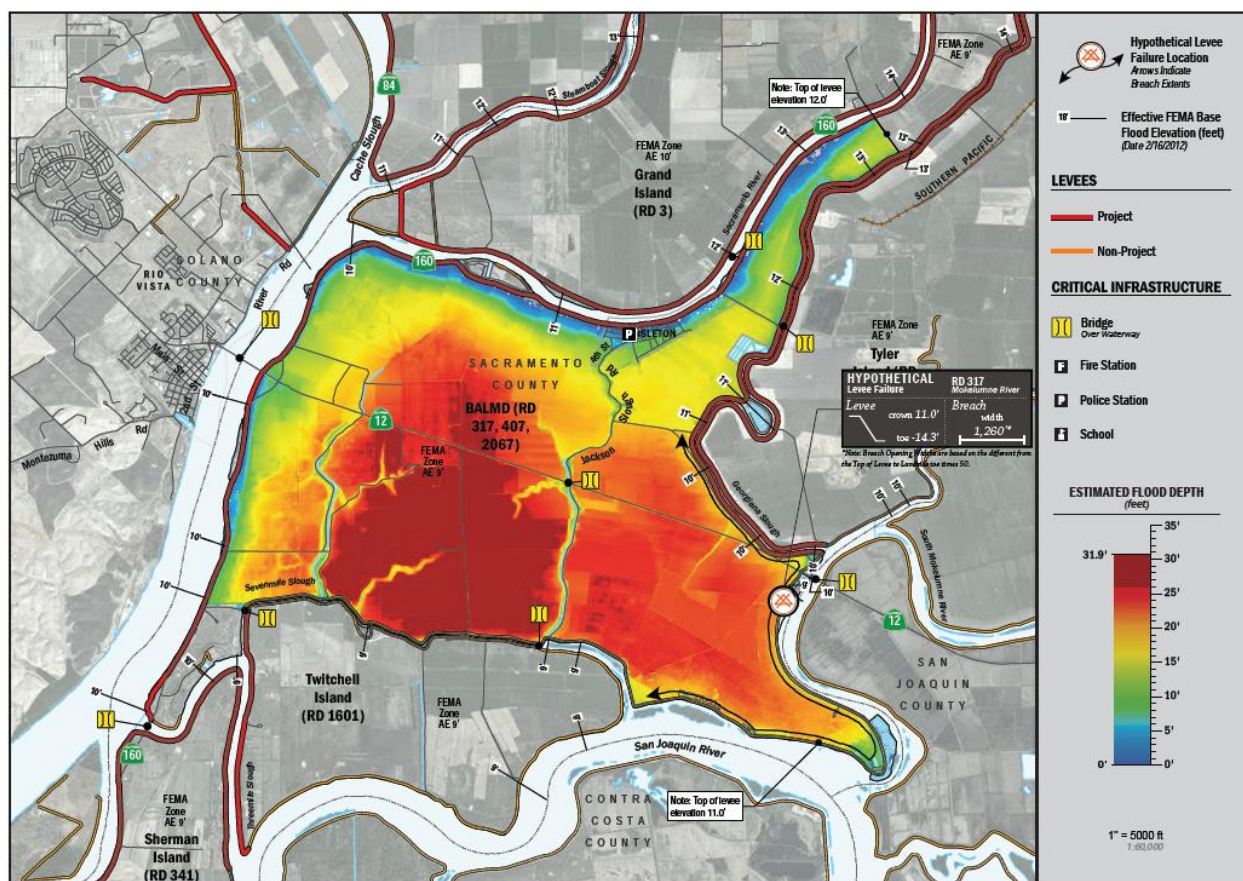
Maps in Figure 1-24, Figure 1-25, and Figure 1-26 provide the estimated depth of flooding (in feet) in assuming a levee fails and no relief cuts were placed in the levee. The results indicate that a levee failure located on the Sacramento River could produce enough volume to fill the basin close to the effective Federal Emergency Management Agency (FEMA) elevation. The lowest ground elevation in the basin is approximately El. -22.0 feet and the lowest top of levee along the San Joaquin is approximately El. 11.0 feet (Sacramento County and GEI Consulting Engineers, 2017).

Figure 1-24 City of Isleton – Depth of Flooding from Levee Breach Scenario #1



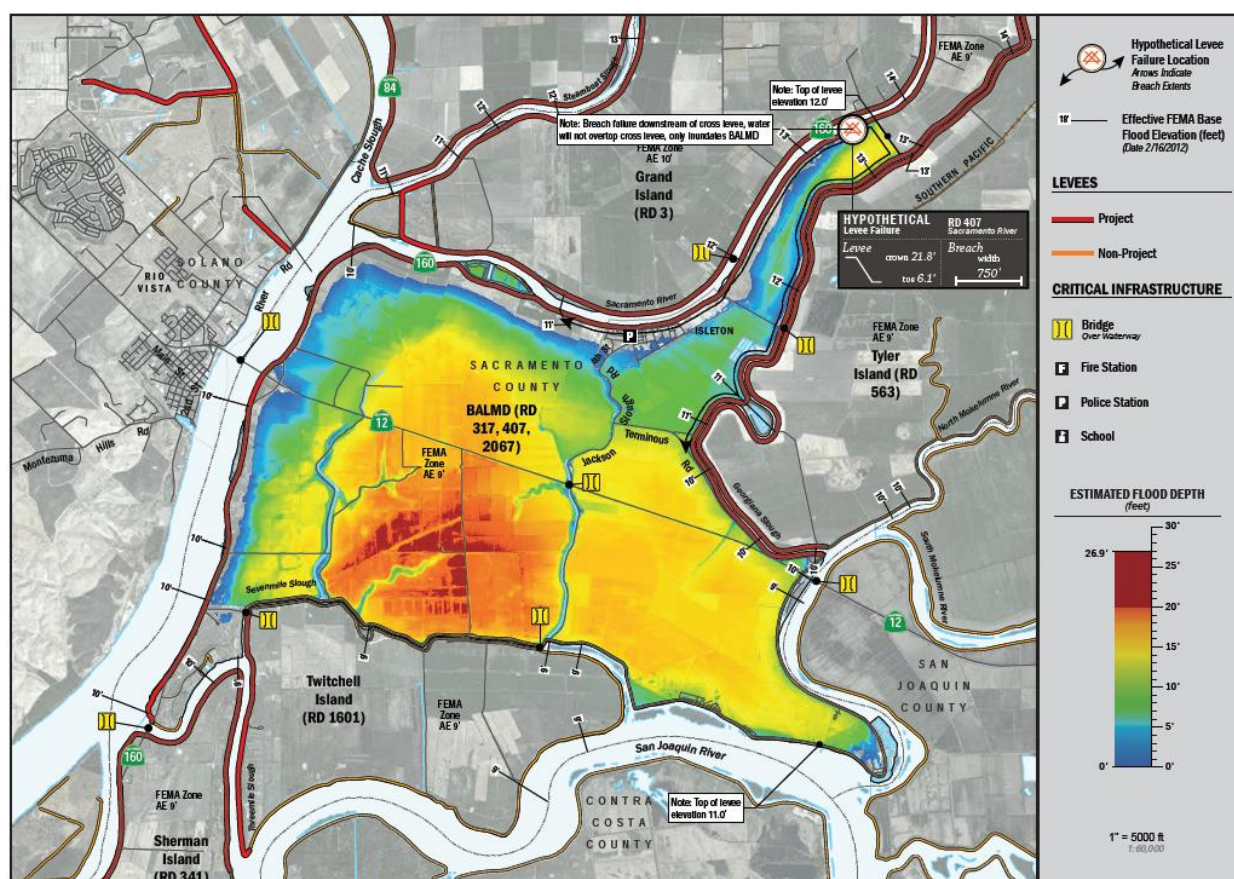
Source: 2017 City of Isleton Opportunities, Constraints, and Vision Report

Figure 1-25 City of Isleton – Depth of Flooding from Levee Breach Scenario #2



Source: 2017 City of Isleton Opportunities, Constraints, and Vision Report

Figure 1-26 City of Isleton – Depth of Flooding from Levee Breach Scenario #3



Source: 2017 City of Isleton Opportunities, Constraints, and Vision Report

Past Occurrences

Disaster Declaration History

There have been two state and two federal disasters declarations directly related to levee failure in Sacramento County, as shown on Table 1-29. Also it is important to note that many of the flood disaster declarations included in Section 4.3.11 of the Base Plan also may include flooding associated with levee breach or failure events.

Table 1-29 Sacramento County – State and Federal Disaster Declarations Summary 1950-2025

Disaster Type	State Declarations		Federal Declarations	
	Count	Years	Count	Years
Levee Break	2	1972, 1980	2	1972, 1980

Source: Cal OES, FEMA

NCDC Events

There have been no NCDC levee failure events in Sacramento County, as the NCDC does not track levee failure flooding as a stand-alone hazard.

City of Isleton Events

The Delta has a long history of flooding, but little definitive data on specific flood events are available. Andrus, Brannan, and Twitchell Islands, have all experienced historical floods. Large areas of the delta were inundated during floods, and it is probable that the City of Isleton was damaged or seriously threatened.

The 1950 and 1955 floods were outstanding in peak outflows through the Delta and several islands were flooded. The City of Isleton, however, was not affected. In December 1965 and January 1965, the coincidental occurrence of very high tides and heavy inflow resulted in unusually high stages on all Delta waterways. Concurrent strong onshore winds generated high waves that created very perilous conditions for many islands. Levees protecting Twitchell Island were seriously threatened by erosion and overtopping, but a massive flood fighting effort prevented overflow, destruction of levees and inundation of the City of Isleton.

The HMPC noted that in 1972, a levee break flooded areas of the City. The levee separating Andrus Island and the San Joaquin River failed from unknown causes in June 1972, resulting in the flooding of Andrus and Brannan Islands (including the City of Isleton). High winds had occurred prior to the break, but there had been no antecedent rainfall and the tidal cycle was not on the higher side. Approximately 200,000 acre-feet of water from the San Joaquin River inundated Andrus and Brannan Islands. Activities to fight floods to protect the City of Isleton proved to be a losing battle, and almost all of the City was flooded. The entire population was evacuated, with some residents not being able to return to their homes for 4 months. Approximately one-half of the housing units in the City were damaged or destroyed. About 15,000 acres were inundated and flood damages for the event approximated \$30 million. Specific damages values for the City were unavailable.

OTHER PAST EVENTS AFFECTING THE CITY, ESPECIALLY THOSE SINCE THE 2021 LHMP. INCLUDE INFORMATION ON IMPACTS AND DAMAGES AS AVAILABLE? IF NO PAST EVENTS, PLEASE STATE THAT.

Climate Change and Levee Failure

The 2024 Sacramento County CAP noted that climate change is likely to lead to changes in the frequency, intensity, and duration of extreme weather events. The County is projected to experience a steady increase in average annual precipitation through the end of the century, with much of that precipitation likely to occur during extreme precipitation events, which can lead to flood impacts. According to Cal-Adapt, the historic average annual precipitation in Sacramento County is 18.3 inches, and the historic average annual number of extreme precipitation events is four. The average annual precipitation across the County may rise upwards of 22 inches, with the number of extreme precipitation events potentially exceeding 7 per year by the end of the century, depending on the level of current and future GHG emissions.

In general, California exhibits “booms and busts,” which refers to the existence of both very wet years and very dry years. The amount of precipitation that falls in any particular year is largely influenced by occurrences of large, discrete winter storms, also known as atmospheric rivers, which often provide a substantial fraction of the region’s annual precipitation, inclusive of the county. In California, atmospheric

rivers vary in intensity; some are beneficial for water supply and replenish snowpack that naturally melts during the summer, serving as the water supply for people and agriculture, while others are responsible for widespread and adverse impacts (NOAA 2023). Extreme precipitation from these atmospheric rivers in the future may prove to be more variable, volatile, and potentially more severe. These extremes are most likely to occur during storm events, leading to more severe damage from waves and floods, thus possibly leading to more levee failure events.

Vulnerability to Levee Failure

According to historical hazard data and levee mapping, levee failures can occur in or near the City. The whole of the City are at some measure of vulnerability to levee failure floods. An assessment of a community's vulnerability to levee failure flooding begins with an understanding of local exposure to levees. This is included in the Local Concerns section below followed by a discussion of the City's Assets at Risk to this hazard.

Local Concerns

The City has specific concerns and unique vulnerabilities regarding this hazard. These concerns form a portion of the basis for the mitigation strategy and mitigation actions that seek to reduce risk and vulnerability to this hazard.

Due to the low-lying tidal nature of the Delta and low elevation of the City of Isleton (just above 5 feet), the entire community must be considered to be in a floodplain. Flood conditions in the City of Isleton are influenced by Pacific Ocean tides and strong onshore winds, as well as high outflow from streams originating in the foothills or higher areas of the Sierra Nevada. Specifically, the City of Isleton may flood when the levees protecting Andrus, Brannan and Twitchell Islands, are either overtopped or fail, as a result of the separate or coincidental occurrence of higher high tides and high outflow through the Delta. The waterways surrounding the islands are the Mokelumne, Sacramento and San Joaquin Rivers, and Georgiana, Sevenmile and Threemile Sloughs. The levees within the City of Isleton are maintained by the levee district.

The City's implements levee operation and maintenance activities which provide maintenance recommendations and requirements for specific levee inspections and maintenance operations. Levee inspections and maintenance activities include vegetation control, rutting/depressions, erosion control, slope stability, cracking, rodent control, encroachments/excavation, riprap revetments/banks, closure structures, underseepage relief wells/toe drainage system, seepage/sand boils, debris removal, roadway crown, utilities, minor structures, and mosquito abatement. While this helps alleviate levee failure flooding, it does not safeguard the City from levee failure.

**OTHER VULNERABILITIES/CONCERNS/ISSUES/PROBLEM AREAS SPECIFIC TO THE CITY?
CAN THE CITY PROVIDE DETAILS ON THE ROOT CAUSE/PROBLEM STATEMENT OF LEVEE
FAILURE ISSUES THAT WILL SUPPORT MITIGATION ACTION DEVELOPMENT?**

Assets at Risk

Assets at risk from levee failure include people and populations; structures; critical facilities and infrastructure; and natural, historic, and cultural resources. These are discussed in the following sections.

Note: The levees in the City are not shown as being certified on the DFIRM X Protected by Levee layer. As such, no mapping has been supplied for this Plan Update.

People and Populations

All people and populations located in leveed areas are at some risk to flooding, as shown by the maps in the Hazard Profile above. Certain vulnerable populations located within areas prone to levee failure flooding may be at increased risk to this hazard, especially during a large event with minimal advance notice. These vulnerable populations include: the unsheltered, those with limited mobility, and those that lack the resources to leave the area.

The City noted that the Critical Facilities and Infrastructure section below includes the facilities used by At-Risk populations that are threatened by this hazard. While this is not specific to what special populations reside in the City, it does speak to facilities that area used to serve (portions) of this population.

Structures

Levee failure events can affect the built environment of the City. Almost all structures in the City are at risk of levee failure flooding. The vulnerability of structures depends on flood depths and can range from slight damage to totally inundated in extreme events. As previously discussed, the City sits in an area protected by unaccredited levees. FEMA DFIRMs map accredited levees only; as such, no analysis of structures and values is provided here. It can be assumed that all structures listed in Table 1-7 would be at risk.

Critical Facilities and Infrastructure

Levee failure flooding present a threat to critical facilities and infrastructure. Critical facilities and infrastructure play an immensely important role in communities. Damage to any one of these systems can threaten public safety, wreak havoc on daily life, impact properties far from flood zones, and result in economic impacts to the City. FEMA DFIRMs map accredited levees only; as such, no analysis of critical infrastructure is provided here. It can be assumed that all structures shown on Figure 1-9 and listed in Table 1-9 would be at risk.

Natural, Historic, and Cultural Resources

Large flood events can affect natural, historic, and cultural resources. There are a number of ways floodwaters can impact natural resources and the environment. Wildlife habitats can be destroyed by floodwaters. Contaminated floodwater can pollute rivers and habitats. Silt and sediment can destroy natural areas. Riverbanks and natural levees can be eliminated as rivers reach bankfull capacity. Rivers can be widened, and deposition can increase downstream. Trees can be uprooted by high-velocity water flow. Plants that survived the initial flood may die due to being inundated with water. Historic and cultural

resources may also be affected. Generally, the impacts are associated with damage to structures within the flooded areas, but other cultural resources such as those associated with Native Americans and old tribal areas can also be disturbed, damaged and lost during extreme flood events. Any of these that fall in the City would be vulnerable.

Impacts from Levee Failure

Floods and their impacts vary by location, including impacts associated with a levee failure flood event, and will only affect certain areas of the City that are in areas protected by both accredited and unaccredited levees. Based on the areas of the City surrounded by levees, it is evident that levee failure floods could potentially have significant impacts to the City, depending on the severity of the event. Impacts that are not quantified, but could be anticipated in large levee failure event, include:

- Injury and loss of life.
- Commercial and residential structural and property damage.
- Crop damage.
- Disruption of and damage to public critical infrastructure and services.
- Health hazards associated with mold and mildew, contamination of drinking water, etc.
- Impacts to natural resource areas, including stream bank erosion.
- Damage to roads/bridges resulting in loss of mobility.

In addition to flood related levee failures, the levees in the City are at risk to failure during an earthquake event. Levee failure flooding could accompany an earthquake and could be compounded further if a dam or storage reservoir fails. Channels and water courses with earthen banks and levees are particularly vulnerable and could collapse in a major earthquake resulting in partial or complete blockage of channels causing flooding upstream of the impoundment. Levees are especially susceptible to rapid settlement due to liquefaction or horizontal spreading of underlying soils, often during an earthquake event.

Impacts to identified assets at risk to this hazard and the overall vulnerability of the City may be affected in the future by climate change (which was discussed in the hazard profile section above), changes in population patterns, and changes in land use and development. The influencing effects of these factors on this hazard are discussed further in the Future Conditions/Future Development discussion below.

Future Conditions/Future Development

This section provides a discussion of how future conditions will influence or affect the hazard over time and also discusses future development relative to each hazard.

Future Conditions

Future conditions may be affected by climate change, changes in population patterns (migration, density, or the makeup of socially vulnerable populations), and changes in land use and development. Findings on this for the City of Isleton include the following:

- Climate change is likely to exacerbate future flood and levee failure conditions and associated impacts and vulnerability of the City to levee failure flooding. This was discussed in greater detail in the Climate Change and Levee Failure section of the Hazard Profile above.
- Future population growth should be considered, as having more or less people in a community affects the overall hazard vulnerability to the City. The City is expected to shrink, which would reduced risk to populations in leveed areas. However, vulnerable population groups could face disproportionate effects from levee failure flooding and should be planned for. Changes in population and population patterns may or may not increase the impacts and vulnerability of the City to this hazard depending on the location and nature of growth and continued planning for future hazard conditions and the location of future levee failure flood events.
- Land use planning should be proactive to address future hazard conditions. However, City building codes and the City's floodplain ordinance are in effect to reduce this risk and should be updated as necessary to continue to address future flood conditions. As such, changes in land use and future development may or may not increase the impacts and vulnerability of the City to this hazard depending on the location and nature of growth and continued planning for future hazard conditions and the location of future flood events.

Future Development

Future development considerations should be ongoing and proactive. Ensuring that comprehensive land use planning is conducted, regulatory requirements, such as building codes and the floodplain ordinance, are followed, and varying needs for different demographic groups with intersecting identities that reside within the City are considered. can help to make for a more resilient community.

Sea Level Rise

Likelihood of Future Occurrence–Likely

Vulnerability–Medium

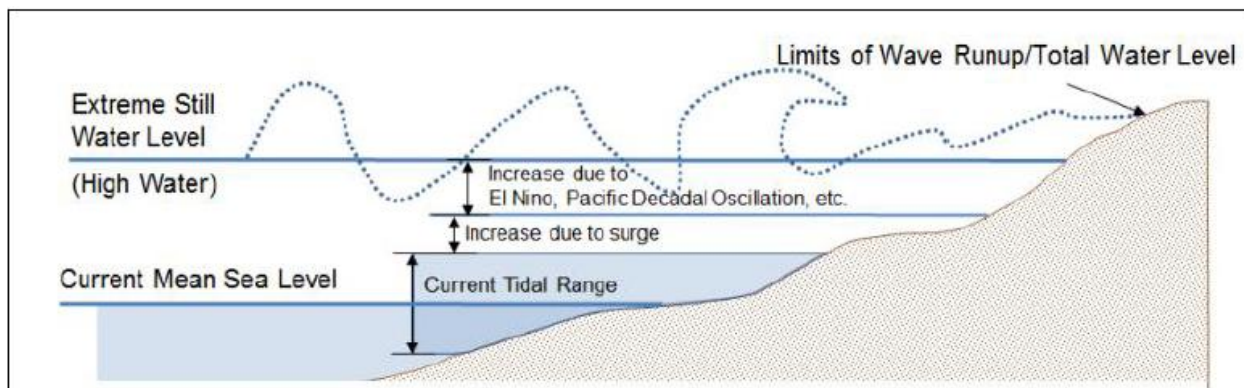
Hazard Profile

Historically, cities, towns and villages were often settled around ports and waterways along the nation's coastlines, providing individuals and families opportunities for trade, jobs and transportation, recreation and relaxation. These areas are extremely important to our nation, with great economic, historic and cultural significance. Although the coastal areas of the United States comprise only one-fifth of the land area of the contiguous 48 states, they account for more than half of the nation's population and housing supply. In 1990, over 133 million Americans lived in the 673 counties along the Atlantic and Pacific Oceans, the Gulf of Mexico and the Great Lakes. Since 1960, population in these areas have increased by 41 percent. The continued increase in coastal population leads to increased coastal development, which places greater numbers of people and structures at risk from coastal hazards including sea level rise.

The 2023 California State Hazard Mitigation Plan noted that sea-level rise generally progressively worsens the impact of high tides and wind-driven waves associated with severe storms. Coupled with increased frequency, severity, and duration of high tide and storm events related to climate change, sea-level rise will exacerbate these extreme events along the coast. El Niño events exacerbate storms and coastal inundation that is already occurring due to sea-level rise and normal coastal weather and tidal patterns. The additive

effects of high tides, storm surge, atmospheric patterns (e.g., El Niño) and sea-level rise are shown in Figure 1-27.

Figure 1-27 Additive Effects of Sea-Level Rise



Source: 2023 California State Hazard Mitigation Plan

King Tides may also affect sea level rise. This was discussed in detail in Section 4.3.15 of the Base Plan.

Location and Extent

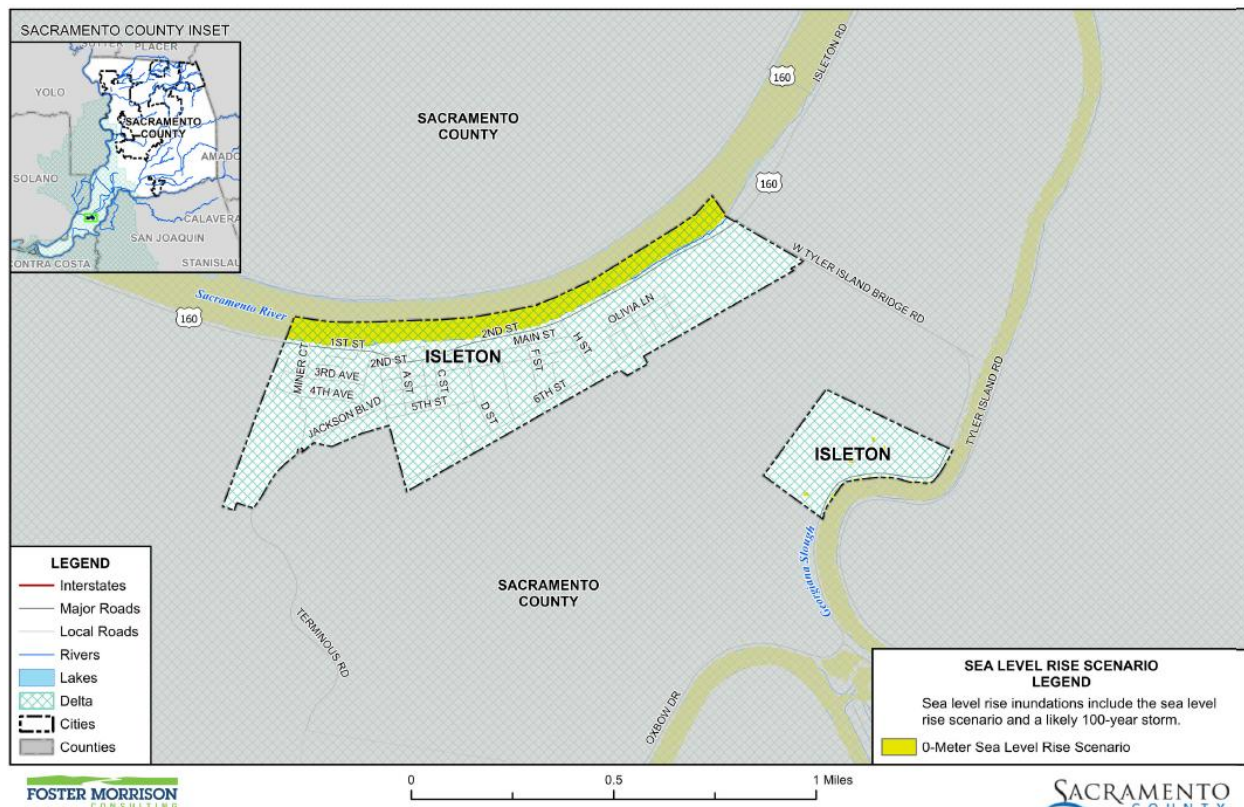
The coastal areas of the Sacramento Planning Area are at risk from sea level rise (especially during periods of extreme tides). Sacramento County is located inland within the Central Valley of California. The southwestern portion of the County follows the course of the Sacramento River as it flows into the Sacramento-San Joaquin Delta. The area of Sacramento County near the Delta is vulnerable to the influences of sea-level rise. Duration of sea level rise is thought to be long. The speed of onset is slow. There is no scientific scale for sea level rise, other than the actual physical measurement of sea level and depth.

Sea level rise scenarios identified in the Sacramento County Climate Action Plan (2024) and the Sacramento County Climate Change Vulnerability Assessment (2017) based on SLR GIS mapping from Cal-Adapt, and California Coastal Inundation Depth Layer Mosaics (2016) were utilized for this assessment. Three sea level rise scenarios were selected based on guidance from the State of California Sea Level Rise Guidance 2024 Science and Policy Update providing and available Cal-Adapt SLR GIS data providing coverage for the Sacramento County area. It should be noted that the SLR scenarios include both the SLR combined with a likely 100-year storm. The scenarios are:

- 0-meter scenario – reflects existing conditions (no SLR) with a 100-year storm
- 0.5 meter scenario – with a 100-year storm is roughly equal to the median projection for 2060 (mid century) and was selected to be representative of plausible 2060 intermediate to high conditions
- 1.41 meter scenario– with a 100-year storm is roughly equal to the median projection for 2100 (end of century) and was selected to be representative of plausible 2100 intermediate to high conditions

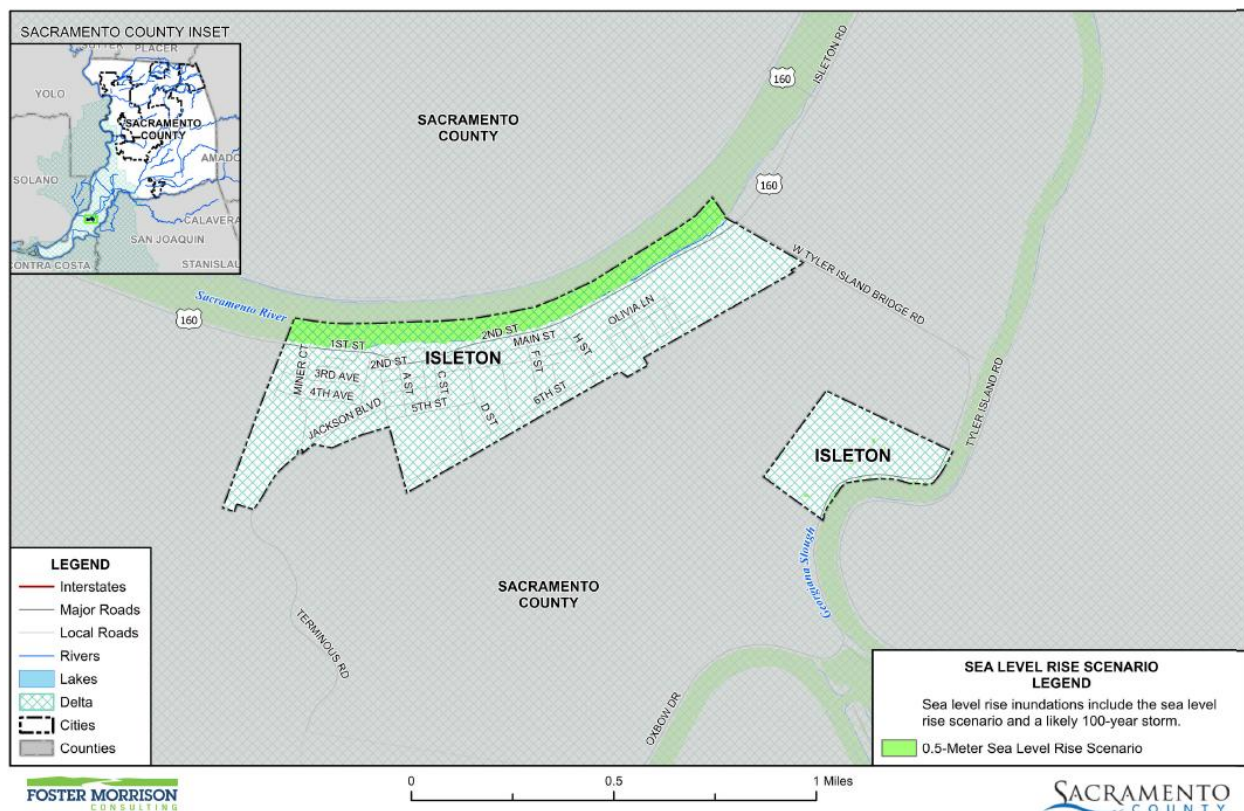
Inundations for these three scenarios are shown on the three images below. They are broken out for the 0-meter (Figure 1-28), 0.5 meter (Figure 1-29), and 1.41 meter (Figure 1-30) scenarios individually. Geographical extents by scenario are detailed in Table 1-30.

Figure 1-28 City of Isleton – Sea Level Rise 0-meter Scenario



Data Source: Sacramento County Climate Action Plan 2024,
Climate Change Vulnerability Assessment 2017,
Cal-Adapt Sea Level Rise <https://cmip5.cal-adapt.org/tools/slr-califlod-3d/>,
San Francisco Bay, Sacramento-San Joaquin Delta and California Coastal Inundation Depth Layer Mosaics 2016
(Datasets: Bay_10m, 0.5m, 1.41m)slr_max_bilinear_snap_float)
Sacramento County, Cal-Atlas; Map Date: 4/14/2026.

Figure 1-29 City of Isleton – Sea Level Rise 0.5-meter Scenario



Data Source: Sacramento County Climate Action Plan 2024,
Climate Change Vulnerability Assessment 2017,
Cal-Adapt Sea Level Rise <https://cmip5.cal-adapt.org/tools/slr-califod-3d/>,
San Francisco Bay, Sacramento-San Joaquin Delta and California Coastal Inundation Depth Layer Mosaics 2016
(Datasets: Bay_0m, 0.5m, 1.41m)slr_max_bilinear_snap_float)
Sacramento County, Cal-Atlas; Map Date: 4/14/2026.

Figure 1-30 City of Isleton – Sea Level Rise 1.41-meter Scenario

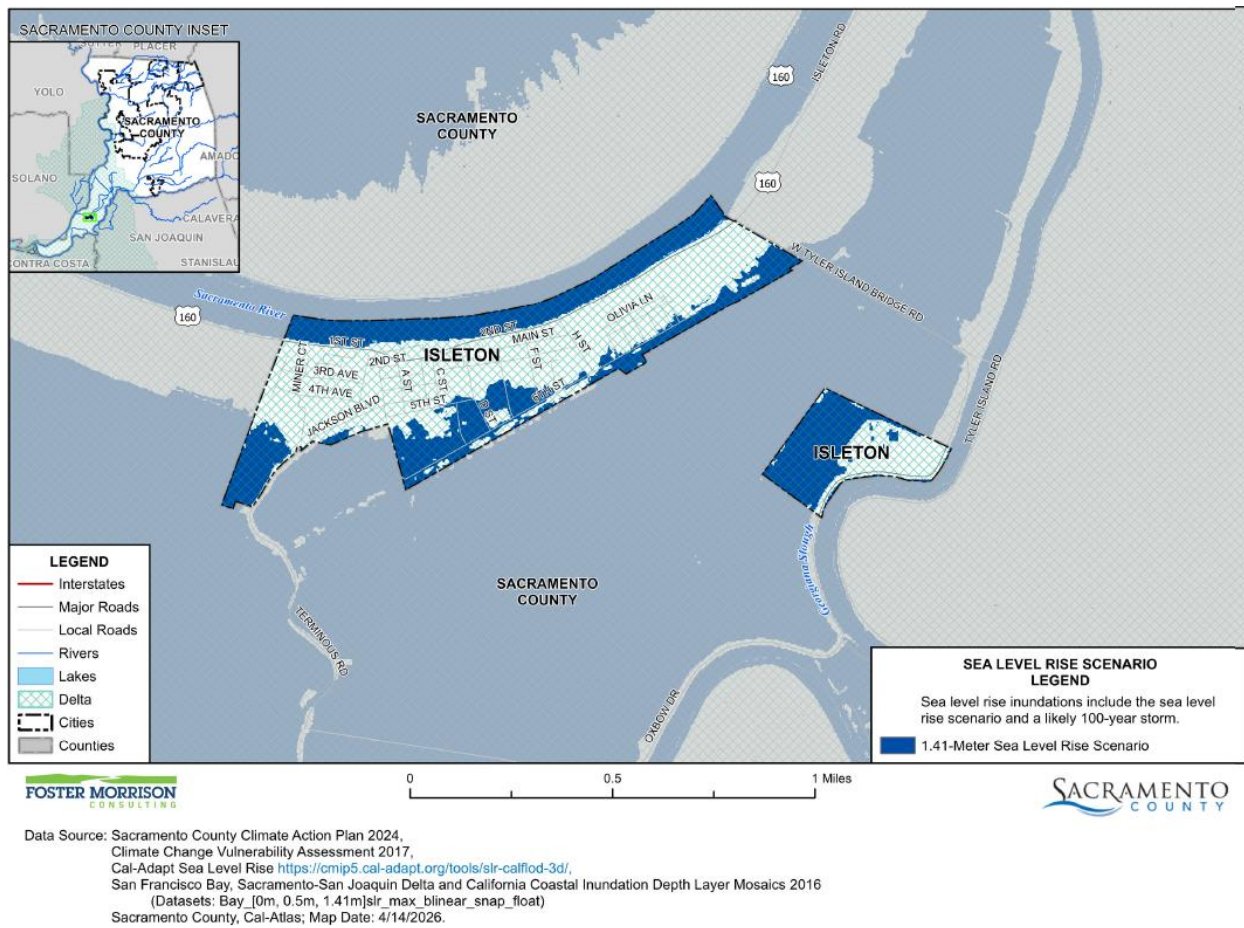


Table 1-30 City of Isleton – Sea Level Rise Scenario Geographical Extents by Scenario

Sea Level Rise Scenario	Total Acres	% of Total Acres	Improved Acres	% of Total Improved Acres	Unimproved Acres	% of Total Unimproved Acres"
0-Meter Sea Level Rise Scenario	6	3%	0.3	1%	6	4%
0.5-Meter Sea Level Rise Scenario	7	3%	1	1%	7	4%
1.41-Meter Sea Level Rise Scenario	86	37%	9	14%	86	51%

Source: Sacramento County Climate Action Plan (CAP) 2024, Climate Change Vulnerability Assessment 2017, Cal-Adapt Sea Level Rise, UC Berkeley, San Francisco Bay, Sacramento-San Joaquin Delta and California Coastal Inundation Depth Layer Mosaics 2016

Past Occurrences

Disaster Declaration History

No disaster declarations have occurred specific to sea level rise.

NCDC Events

The NCDC does not track sea level rise.

City of Isleton Events

The City noted that no standalone sea level flood rise events have been documented in the City. Instead, sea level rise has acted as a background amplifier during other hazards. These were discussed in Section 4.3.15 of the Base Plan.

Climate Change and Sea Level Rise

The 2023 California State Hazard Mitigation Plan noted that coastal areas may be impacted by climate change in different ways. A warmer atmosphere means storms have the potential to be more intense and occur more often. Climate change also will result in sea-level rise. Sea-level rise is driven by climate change. As the planet warms, land ice melts and flows into the ocean. Ocean temperatures rise and thermal expansion takes place.

The 2017 Sacramento County Climate Vulnerability Assessment noted that an effect of global climate change is sea-level rise. The average global sea level rose approximately seven inches during the last century. Assuming that it continues to reflect global trends, sea level along the California coastline could be 10-18 inches higher in 2050 than 2000 levels, and 31-55 inches higher than 2000 levels by the end of this century.

Vulnerability to Sea Level Rise

According to historical hazard data and hazard mapping, sea level rise is occurring in the Sacramento County Planning Area. The whole of the City are at some measure of vulnerability to increased flooding from sea level rise.

The 2024 Sacramento County CAP noted that while many of the potential impacts associated with sea level rise are similar to those with flooding, sea level rise presents additional potential impacts, such as saltwater intrusion, which can affect the quality of the region's water supplies, especially when coupled with increased municipal and agricultural demand for freshwater.

Sea level rise can be exacerbated during king tides. King tides are simply the very highest tides. They are naturally occurring, predictable events. King tides of today may give an idea of future normal conditions that may occur due to sea level rise. High tides may coincide with heavy rain causing increased flooding, bluff erosion, and landslides, such as were experienced during the 1998 and 2016 El Nino storms. The 2023 California State Hazard Mitigation Plan noted that coupled with increased frequency, severity, and

duration of high tide and storm events related to climate change, sea level rise will exacerbate these extreme events along the coast and other affected areas. These events may expose coastal and other areas to severe flooding and erosion; damage to structures, real estate, public access, and habitat areas; and seawater intrusion into Delta areas and coastal aquifers. El Niño events exacerbate storms and sea level rise inundation above that already occurring due to sea-level rise and normal coastal weather and tidal patterns.

An assessment of a community's vulnerability to levee failure flooding begins with an understanding of local exposure to sea level rise. This is included in the Local Concerns section below followed by a discussion of the City's Assets at Risk to this hazard.

Local Concerns

The City has specific concerns and unique vulnerabilities regarding this hazard. These concerns form a portion of the basis for the mitigation strategy and mitigation actions that seek to reduce risk and vulnerability to this hazard.

The greatest risk to the City is sea level rise causing levee failure on the levees that protect the City (discussed above in greater detail in the Levee Failure section). Climate change-related sea-level rise will likely increase pressure on fragile levees.

In addition, the City noted that the 2017 Sacramento County Climate Vulnerability Assessment noted that sea-level rise will likely affect the salinity of the Sacramento-San Joaquin Delta waters. The salinity of the Sacramento-San Joaquin Delta has historically been extremely changeable. The salt content of the Delta ebbs and flows depending on the function of a variety of variables such as tides, storms, and river outflow. As California has developed, the freshwater demand has introduced an additional strain on the Delta that has affected water quality and ecosystem health. The Delta provides a freshwater source for the State Water Project and the Central Valley Project, which diverts approximately two thirds of the State's freshwater supply for agricultural and municipal purposes in Southern California.

OTHER VULNERABILITIES/CONCERNS/ISSUES SPECIFIC TO THE CITY? CAN THE CITY PROVIDE DETAILS ON THE KEY PROBLEMS ASSOCIATED WITH SEA LEVEL RISE THAT WILL SUPPORT MITIGATION ACTION DEVELOPMENT?

Assets at Risk

Assets at risk from sea level rise include people and populations; structures; critical facilities and infrastructure; and natural, historic, and cultural resources. These are discussed in the following sections.

People and Populations

City residents that live in areas influenced by coastal hazards (like Isleton and the Delta) are often the most vulnerable. Not only are the residents at risk, but their homes and contents are all at risk, compounding the impacts associated with significant hazard events. To further evaluate the impact to the residential population within the City, the three sea level rise scenarios were overlayed on the parcel layer and linked to the Assessor data. Those residential parcel centroids that intersect the mapped sea level rise scenarios

were counted and multiplied by the 2020 Census Bureau average household factors for the City of Isleton – 3.18. These are shown in Table 1-31.

Table 1-31 City of Isleton – Improved Residential Parcels and Population by Sea Level Rise Scenario by Jurisdiction

Sea Level Rise Scenario/Jurisdiction	Improved Residential Parcels	Population
0-Meter		
Isleton	9	29
0.5 Meter		
Isleton	9	29
1.41 Meter		
Isleton	44	140

Source: Sacramento County Climate Action Plan 2024, Climate Change Vulnerability Assessment 2017, Cal-Adapt Sea Level Rise, , 2025 Sacramento County Parcel/Assessor Data, 2020 US Census Bureau Average Household Size – City of Isleton (3.18)

Structures

Certain structures in the City are at risk to sea level rise and primarily include those structures located in areas in and around the Delta area. GIS was used to determine the possible impacts of sea level rise on parcels and structures within the City. Table 1-32 is a summary table for the affected jurisdictions in the City. Parcel counts, land and improved values (i.e., those with a structure improvement on the parcel), estimated content replacement values, and total values are shown for each of the three sea level rise scenarios. The three scenarios in Table 1-32 are broken down in more detail for the City by scenario and property use in Table 1-33 (for the 0-meter scenario), Table 1-34 (for the 0.5-meter scenario), and Table 1-35 (for the 1.41-meter scenario).

Table 1-32 City of Isleton – Count and Value of Parcels and Structures in 0-, 0.5, and 1.41-Meter Sea Level Rise Scenario by Jurisdiction

Sea Level Rise Scenario/Jurisdiction	Total Parcel Count	Improved Parcel Count	Total Land Value	Structure Value	Estimated Contents Value	Total Value
0-Meter Sea Level Rise Scenario						
Isleton	32	13	\$3,698,449	\$2,790,758	\$2,750,358	\$9,239,565
0.5-Meter Sea Level Rise Scenario						
Isleton	32	13	\$3,698,449	\$2,790,758	\$2,750,358	\$9,239,565
1.41-Meter Sea Level Rise Scenario						
Isleton	113	51	\$10,625,942	\$10,015,455	\$7,071,102	\$27,712,499

Source: Sacramento County Climate Action Plan (CAP) 2024, Climate Change Vulnerability Assessment 2017, Cal-Adapt Sea Level Rise, UC Berkeley, San Francisco Bay, Sacramento-San Joaquin Delta and California Coastal Inundation Depth Layer Mosaics 2016, 2025 Sacramento County Parcel/Assessor Data

Table 1-33 City of Isleton – Count and Value of Parcels and Structures 0-meter Sea Level Rise Scenario by Property Use

Sea Level Rise Scenario / Property Use	Total Parcel Count	Improved Parcel Count	Total Land Value	Structure Value	Estimated Contents Value	Total Value
0-Meter Sea Level Rise Scenario						
Industrial	2	2	\$1,699,491	\$1,103,262	\$1,654,893	\$4,457,646
Miscellaneous	4	0	\$38	\$0	\$0	\$38
Public / Utilities	5	0	\$9	\$0	\$0	\$9
Residential	9	9	\$1,384,436	\$1,184,062	\$592,031	\$3,160,529
Retail / Commercial	3	2	\$283,976	\$503,434	\$503,434	\$1,290,844
Vacant	9	0	\$330,499	\$0	\$0	\$330,499
Isleton Total	32	13	\$3,698,449	\$2,790,758	\$2,750,358	\$9,239,565

Source: Sacramento County Climate Action Plan (CAP) 2024, Climate Change Vulnerability Assessment 2017, Cal-Adapt Sea Level Rise, UC Berkeley, San Francisco Bay, Sacramento-San Joaquin Delta and California Coastal Inundation Depth Layer Mosaics 2016, 2025 Sacramento County Parcel/Assessor Data

Table 1-34 City of Isleton – Count and Value of Parcels and Structures in 0.5-Meter Sea Level Rise Scenario by Property Use

Sea Level Rise Scenario / Property Use	Total Parcel Count	Improved Parcel Count	Total Land Value	Structure Value	Estimated Contents Value	Total Value
0.5-Meter Sea Level Rise Scenario						
Agricultural	1	0	\$35,511	\$0	\$0	\$35,511
Industrial	2	2	\$1,699,491	\$1,103,262	\$1,654,893	\$4,457,646
Miscellaneous	4	0	\$38	\$0	\$0	\$38
Public / Utilities	5	0	\$9	\$0	\$0	\$9
Residential	9	9	\$1,384,436	\$1,184,062	\$592,031	\$3,160,529
Retail / Commercial	2	1	\$218,737	\$229,663	\$229,663	\$678,063
Vacant	9	0	\$330,499	\$0	\$0	\$330,499
Isleton Total	32	12	\$3,668,721	\$2,516,987	\$2,476,587	\$8,662,295

Source: Sacramento County Climate Action Plan (CAP) 2024, Climate Change Vulnerability Assessment 2017, Cal-Adapt Sea Level Rise, UC Berkeley, San Francisco Bay, Sacramento-San Joaquin Delta and California Coastal Inundation Depth Layer Mosaics 2016, 2025 Sacramento County Parcel/Assessor Data

Table 1-35 City of Isleton – Count and Value of Parcels and Structures in 1.41-Meter Sea Level Rise Scenario by Property Use

Sea Level Rise Scenario / Property Use	Total Parcel Count	Improved Parcel Count	Total Land Value	Structure Value	Estimated Contents Value	Total Value
1.41-Meter Sea Level Rise Scenario						
Agricultural	1	0	\$35,511	\$0	\$0	\$35,511

Sea Level Rise Scenario / Property Use	Total Parcel Count	Improved Parcel Count	Total Land Value	Structure Value	Estimated Contents Value	Total Value
Industrial	4	4	\$2,708,265	\$1,815,137	\$2,722,706	\$7,246,108
Miscellaneous	13	0	\$890,778	\$0	\$0	\$890,778
Public / Utilities	11	0	\$9	\$0	\$0	\$9
Residential	45	44	\$3,739,151	\$7,689,925	\$3,844,963	\$15,274,039
Retail / Commercial	3	2	\$283,976	\$503,434	\$503,434	\$1,290,844
Vacant	36	1	\$2,968,252	\$6,959	\$0	\$2,975,211
Isleton Total	113	51	\$10,625,942	\$10,015,455	\$7,071,102	\$27,712,499

Source: Sacramento County Climate Action Plan (CAP) 2024, Climate Change Vulnerability Assessment 2017, Cal-Adapt Sea Level Rise, UC Berkeley, San Francisco Bay, Sacramento-San Joaquin Delta and California Coastal Inundation Depth Layer Mosaics 2016, 2025 Sacramento County Parcel/Assessor Data

Critical Facilities and Infrastructure

Sea level rise presents a threat to critical facilities and infrastructure. Critical infrastructure plays an immensely important role in our communities. Damage to any one of these systems can threaten public safety, wreak havoc on daily life, impact properties far from flood zones, and result in economic impacts that cascade throughout California. A GIS analysis was performed on the critical facility inventory in the Sacramento County Planning Area to determine critical facilities and infrastructure in three sea level rise scenarios. It should be noted that no City of Isleton critical facilities fall in the sea level scenarios. As such, no mapping or tabular analysis is presented here.

Natural, Historic, and Cultural Resources

According to the 2024 CAP, rising sea levels can disrupt coastal wetlands by drowning plant species, increasing salt levels in the soil and water, and outpacing wetland's migration further inland. This puts important ecosystems in danger, threatens habitats, and leaves communities exposed to dangerous storm surge. Without wetlands and other critical ecosystems, many species could lose their homes or become extinct. Large flood events exacerbated by sea level rise can affect natural, historic, and cultural resources. Any of these resources that fall in the sea level rise scenarios shown on Figure 1-28, Figure 1-29, or Figure 1-30 would be vulnerable.

Future Conditions/Future Development

This section provides a discussion of how future conditions will influence or affect the hazard over time and also discusses future development relative to each hazard.

Future Conditions

Future conditions may be affected by climate change, changes in population patterns (migration, density, or the makeup of socially vulnerable populations), and changes in land use and development. Findings on this for the City include the following:

- Climate change is likely to exacerbate future sea level rise conditions and associated impacts and vulnerability of the County. This was discussed in greater detail in the Climate Change and Sea Level Rise section of the Hazard Profile above
- Population in the City is expected to continue to shrink. However, vulnerable population groups could face disproportionate effects from a flood and should be planned for. Changes in population and population patterns may or may not increase the impacts and vulnerability of the County to this hazard depending on the location and nature of growth and continued planning for future hazard conditions.
- Land use planning should be proactive to address future hazard conditions. Locating new development, structures and critical facilities and infrastructure within or near areas of flood risk may put additional development at risk. Building codes are in effect to reduce this risk and should be updated as necessary to continue to address future heavy rains and storm conditions. With adherence to development standards, future losses to new development should be minimal.

Future Development

The 2024 CAP noted that guiding development out of areas vulnerable to sea level rise will reduce future flooding impacts to people and property. The City of Isleton noted that future development considerations need to be made, as having more or less structures and residents in sea level rise areas affects the overall hazard vulnerability that can impact the City. Levee improvements will be needed to mitigate sea level rise for the City.

Severe Weather: Heavy Rains and Storms

Likelihood of Future Occurrence–Highly Likely

Vulnerability–Medium

Hazard Profile

Storms in the City occur annually and are generally characterized by heavy rain often accompanied by strong winds and sometimes lightning and hail. Approximately 10 percent of the thunderstorms that occur each year in the United States are classified as severe. A thunderstorm is classified as severe when it contains one or more of the following phenomena: hail that is three-quarters of an inch or greater, winds in excess of 50 knots (57.5 mph), or a tornado. Heavy precipitation in the City falls mainly in the fall, winter, and spring months. Wind often accompanies these storms; hail and lightning are rare in the City. In recent years, heavy rain and storms have been compounded by more frequent and higher intensity atmospheric river events. Rain on snow events occurring in the upper elevations can also be significant and contribute to greater downstream runoff and flooding during large storm events.

Location and Extent

Heavy rain events occur on a regional basis. Rains and storms can occur in any location of the City. All portions of the City are at risk to heavy rains and storms. Most of the severe rains occur during the fall, winter, and spring months in the City as discussed below (with problem flooding areas associated with heavy rains and storms shown in Table 1-28 in the Flood: Localized Stormwater section). There is no scale by which heavy rains and severe storms are measured. Magnitude of storms is measured often in rainfall and damages. The speed of onset of heavy rains can be short, but accurate weather prediction mechanisms

often let the public know of upcoming events. Hail and lightning are rarer in the City and Sacramento County. Duration of severe storms in the City can range from minutes to hours to days. According to the WRCC, average annual precipitation in the County is 18.15 inches per year. Information on precipitation extremes can be found in Section 4.3.4 of the Base Plan.

Past Occurrences

Disaster Declaration History

According to historical hazard data, severe weather, including heavy rains and storms, is an annual occurrence in the City. This contributes to many of the federal disaster declarations related to flooding. Disaster declarations from flooding are shown on Table 1-36, many of which likely affected the City.

Table 1-36 Sacramento County – State and Federal Disaster Declarations from Flood (Heavy Rain and Storms) 1950-2025

Disaster Type	State Declarations		Federal Declarations	
	Count	Years	Count	Years
Flood (including heavy rains and storms)	26	1950, 1955, 1958 (twice), 1963, 1969, 1982 (twice), 1983, 1986, 1995 (twice), 1996, 1997, 1998, 2008, 2017 (three times), 2022*, 2023 (three), 2024 (twice)	18	1955, 1958, 1964, 1969, 1983, 1986, 1995 (twice), 1997, 1998, 2006, 2017 (three times), 2023 (three times)*, 2024*

Source: Cal OES, FEMA

NCDC Events

The NCDC data recorded 9 hail, 29 heavy rain, 1 lightning, and 2 winter storm weather incidents for Sacramento County since 1950. Winter weather events tend to be rain in the County.

City of Isleton Events

The City noted that heavy rains and storms are an annual occurrence. Other events causing issues are listed in the Past Occurrences section of the Flood: 1%/0.2% Annual Chance and Flood: Localized Stormwater Flooding discussions above.

In late 2016 the Wastewater Treatment Plant almost reached capacity during intense rains. This situation was going to lead to street flooding and unsanitary street conditions. The WWTP is still vulnerable to this catastrophe.

The City of Isleton sewer ponds and sewer collection system were severely impacted by the Winter Storm 2022-23. The winter storm hit Isleton on December 31, 2022 and brought widespread heavy rain, debris, flooded streets and high wastewater levels at the sewer ponds. The City issued an emergency declaration disaster on January 11th. Due to PG&E power outages throughout the City, the City rented a generator for emergency services for the Fire Department and wastewater treatment plant from January 4th to January 11th. Due to the massive inflow of rain, saturated ground, and high river intrusion, the City's Plant was inundated with a volume at multiples beyond the WWTP design capacity. The City encountered, on March

10, 2023, an overflow of the WWTP ponds into public waters (Mokelumne River, San Joaquin River, San Francisco Bay). The City applied for financial assistance through Sacramento County OES and received an approved letter dated March 1, 2023 from CAL OES.

In February of 2026, the City had another spill in its ponds. Due to the winter storms, the collection system has significant Inflow and Infiltration from both rainwater and ground water. The wet season caused the City ponds to fill to the point of a minor failure in one of the evaporation ponds. There was a three inch hole at the base of one pond caused by reed growth, so the City had to drain the connected ponds and repair the berm.

Climate Change and Heavy Rains and Storms

It is likely that climate change will increase the chance of future occurrence as well as future impacts from heavy rains and storms. More information on future impacts to the City can be found in the Future Conditions/Future Development section of the Vulnerability Assessment below.

According to the 2024 CAS, while average annual rainfall may increase or decrease slightly, the intensity of individual rainfall events is likely to increase during the 21st century. It is unlikely that hail will become more common in Sacramento County and the City of Isleton. The amount of lightning is not projected to change.

Cal-Adapt noted that, on average, the projections show little change in total annual precipitation in California. Furthermore, among several models, precipitation projections do not show a consistent trend during the next century. Cal-Adapt modeled scenarios are shown in Section 4.3.4 of the Base Plan.

According to the 2024 CAP, the County is projected to experience a steady increase in average annual precipitation through the end of the century, with much of that precipitation likely to occur during extreme precipitation events, which can lead to flood impacts. According to Cal-Adapt, the historic average annual precipitation in Sacramento County is 18.3 inches, and the historic average annual number of extreme precipitation events is four. As shown in Section 4.3.4 of the Base Plan, the average annual precipitation across the County may rise upwards of 22 inches, with the number of extreme precipitation events potentially exceeding 7 per year by the end of the century, depending on the level of current and future GHG emissions.

Vulnerability to Heavy Rain and Storms

Heavy rain and severe storms are the most frequent type of severe weather occurrences in the City. These events can cause both significant and localized flooding. Flooding can be worse during times where the ground is already saturated. Wind often accompanies these storms and has caused damage in the past. Hail and lightning are rare in the City, but also can cause damage, with lightning occasionally igniting wildfires.

The whole of the City is at some measure of vulnerability to heavy rain and storms. An assessment of a community's vulnerability to heavy rains and storms begins with an understanding of local exposure to heavy rain and storms. This is included in the Local Concerns section below followed by a discussion of the City's Assets at Risk to this hazard.

Local Concerns

The City has specific concerns and unique vulnerabilities regarding this hazard. These concerns form a portion of the basis for the mitigation strategy and mitigation actions that seek to reduce risk and vulnerability to this hazard.

The City noted that heavy rains and storms cause localized flooding in the City. The problem areas are shown on Table 1-28 above.

The City of Isleton's Wastewater Treatment Plant, and City Hall are at risk. All of the City's operations are based out of these buildings. These storms also cause increases of infiltration that triples the inflow to the wastewater treatment plant. With the new development, Village on the Delta, these storms could cause amounts of water to be treated to exceed the amount of daily flow the wastewater plant can handle. Primarily the vulnerabilities are due to the City's low elevations and a limited wastewater treatment facility.

OTHER VULNERABILITIES/CONCERNS/ISSUES SPECIFIC TO THE CITY? CAN THE CITY PROVIDE DETAILS ON THE KEY PROBLEMS ASSOCIATED WITH HEAVY RAINS AND STORMS THAT WILL SUPPORT MITIGATION ACTION DEVELOPMENT?

Assets at Risk

Assets at risk from heavy rain and storms include people and populations; structures; critical facilities and infrastructure; and natural, historic, and cultural resources. These are discussed in the following sections.

People and Populations

All populations (including vulnerable populations) in the City have some measure of risk to heavy rains and storms. Those populations that work or recreate outside and unhoused individuals are more vulnerable to impacts from heavy storm events. Heavy rains and storms occur every year and do not generally cause significant adverse impacts to individuals; it is the secondary hazard, flooding, which poses the biggest impact to people. Populations at risk to flooding resulting from heavy rains and storm events include those who live in floodplains (discussed in further detail in the Flood: 1%/0.2% Annual Chance and Levee Failure section above) and those who live in and near localized flooding areas (discussed in further detail in the Flood: Localized Stormwater Flooding section above).

Structures

Structures in the City have some risk to heavy rains and storms. Structures built to modern building codes are built to withstand heavy rains and storms (including high winds and lightning). During a heavy storm, localized flooding may cause water intrusion into buildings from the outside. Trees can be downed causing impacts to structures. Older homes and buildings may be at increased risk to heavy rains and storms. Power outages during severe storm events can occur, impacting the use of structures until the power is back online.

Critical Facilities and Infrastructure

Heavy rain and storms can affect critical facilities and infrastructure during large events. Power outages may occur taking facilities offline. High winds can down power lines and trees impacting facilities. Water intrusion into facilities and infrastructure, such as water and wastewater facilities, can impact operations. City roads, streets, and bridges can be impacted resulting in closures restricting traffic flow in the City. In certain areas, large storms can cause erosion and localized landslides which can impact facilities. Many critical facilities are built to modern design standards that take heavy rains and storms into account when siting and building these structures, and others may need to be retrofitted to better withstand these events.

Natural, Historic, and Cultural Resources

Large rain and storm events and associated flooding can affect natural, historic, and cultural resources. Silt and sediment can damage natural areas. Trees can be uprooted and downed by high winds. Extended periods of rainfall can erode natural banks along waterways and degrade soil stability for terrestrial species. While some natural systems can be adversely impacted during these large storms, heavy rain events can also provide benefits. Groundwater and wetland areas can be recharged and water supplies replenished. Historic and cultural resources may also be affected. Generally, the impacts are associated with damage to structures affected by large storm events, but other cultural resources such as those associated with Native Americans and old tribal areas can also be disturbed, damaged, and lost during extreme rain and storm and events.

Impacts from Heavy Rain and Storms

Impacts from heavy rains and storms include damage to property, critical facilities and infrastructure, and the natural landscape. This includes: erosion; downed trees; damaged utility structures and infrastructure; power outages; road damage and blockages; and even lightning strikes to critical infrastructure and people. Lightning can also cause wildfires and urban fires to occur. Landsliding and erosion occur when the soil on slopes becomes oversaturated and fails. Climate change may cause these impacts to worsen.

Actual damage associated with the primary effects of severe storms and heavy rains has been somewhat limited. It is the secondary hazards caused by these severe weather events, such as floods, landslides, and erosion that would likely have the greatest impact.

Impacts to identified assets at risk to this hazard and the overall vulnerability of the City may be affected in the future by climate change (which was discussed in the hazard profile section above), changes in population patterns, and changes in land use and development. The influencing effects of these factors on this hazard are discussed further in the Future Conditions/Future Development discussion below.

Future Conditions/Future Development

This section provides a discussion of how future conditions will influence or affect the hazard over time and also discusses future development relative to each hazard.

Future Conditions

Future conditions may be affected by climate change, changes in population patterns (migration, density, or the makeup of socially vulnerable populations), and changes in land use and development. Findings on this for the City include the following:

- Climate change is likely to exacerbate future heavy rain and storm conditions and associated impacts and vulnerability of the City to flooding. This was discussed in greater detail in the Climate Change and Heavy Rains and Storms section of the Hazard Profile above.
- The City is expected to see continue to slowly shrink. Certain vulnerable populations, such as the those who work or spend extended periods outdoors, could experience disproportional effects from this hazard. and should be addressed as the City continues to grow. Changes in population and population patterns may or may not increase the impacts and vulnerability of the City to this hazard depending on the location and nature of growth and continued planning for future hazard conditions and the nature and intensity of future storm events.
- Land use planning should be proactive to address future hazard conditions. Changes in land use in future areas may also amplify the impacts of heavy rains and storms, as additional impervious surfaces can cause additional runoff and localized flooding throughout the City. However, changes in land use and future development may or may not increase the impacts and vulnerability of the City to this hazard depending on the location and nature of growth and continued planning for future hazard conditions and the nature and intensity of future storm events.

Future Development

Building codes in the City ensure that new development is built to current building standards, which should reduce the risk to future development in the City from heavy rains and storms. New critical facilities such should be built to withstand hail damage, lightning, and thunderstorm winds. New and existing critical facilities and infrastructure should also consider adding backup power systems to limit impacts associated with power outages. With adherence to development standards, future losses to new development should be minimal. Changes in land use may also amplify the impacts of heavy rains and storms, as additional impervious surfaces can cause additional runoff and localized flooding throughout the City.

Wildfire (with smoke and air quality)

Likelihood of Future Occurrence—Unlikely

Vulnerability—Low

Note: though a low significance hazard in the City, due to its importance in the County and in the State of California, this hazard is profiled here. It is not considered a City priority for mitigation planning purposes.

Hazard Profile

Wildland fire and the risk of a conflagration is an ongoing concern for the City of Isleton. Throughout California, communities are increasingly concerned about wildfire safety as increased development in the foothills and mountain areas and subsequent fire control practices have affected the natural cycle of fire regimes. Wildland fires affect grass, forest, and brushlands, as well as structures. Where there is human

access to wildland areas the risk of fire increases due to a greater chance for human carelessness and historical fire management practices. Historically, the fire season extends from early spring through late fall of each year during the hotter, dryer months; however, in recent years, the risk of wildfire has become a year around concern.

Fire conditions arise from a combination of high temperatures, low moisture content in the air and fuel, accumulation of vegetation, and high winds. These weather conditions can result in red flag (e.g., fire weather) days and, while rare, may result in PSPS events in the City. While wildfire risk has predominantly been associated with more remote forested areas and wildland urban interface (WUI) areas, significant wildfires can also occur in more populated, urbanized areas. There is also the concern of wildfires occurring in these more remote, forested areas that under certain weather conditions, can extend into areas not generally considered at a high risk to wildfire. Smoke and air quality also become an issue, both from fires occurring inside and outside of the Sacramento County Planning Area and the City.

Wildfire Smoke and Air Quality

Smoke from wildfires is made up of gas and particulate matter, which can be easily observed in the air. Air quality standards have been established to protect human health with the pollutant referred to as PM_{2.5} which consists of particles 2.5 microns or less in diameter. These smaller sizes of particles are responsible for adverse health effects because of their ability to reach the lower regions of the respiratory tract.

Wildfire smoke can have negative effects to those who live in or near a fire burn area. Smoke and air pollution from wildfires can be a severe health hazard. Significant wildfires occurring in both Sacramento County and nearby northern California communities since the 2021 LHMP Update have created significant air pollution affecting area residents. These were discussed in Section 4.3.17 of the Base Plan.

Location and Extent

Wildfire can affect all areas of the City. CAL FIRE has estimated that the risk varies across the City and has created updated wildfire maps showing risk variance across the City and the Sacramento County Planning Area. Following the methodology described in Section 4.3.15 of the Base Plan, wildfire maps for the City of Isleton were created. Figure 1-31 shows the CAL FIRE State Responsibility Areas (SRA) and Federal Responsibility Areas (FRA) and their associated Fire Hazard Severity Zones (FHSZ) in the City. Figure 1-32 shows the CAL FIRE Local Responsibility Areas (LRA) and their associated Fire Hazard Severity Zones (FHSZ) in the City. As shown on the maps, SRA/FRA FHSZs within the City fall outside of the state and federal mapped areas and fully in the LRA FHSZs.

Figure 1-31 City of Isleton – CAL FIRE SRA/FRA Fire Hazard Severity Zones

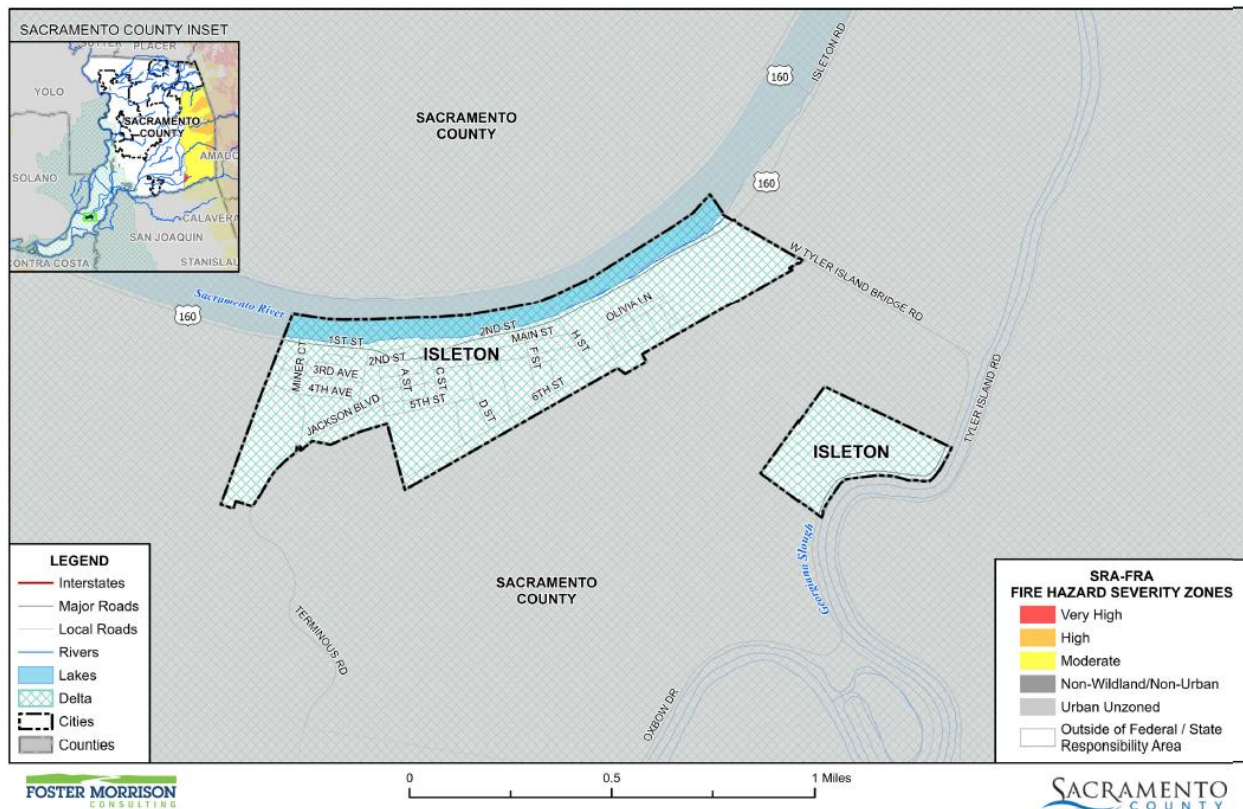
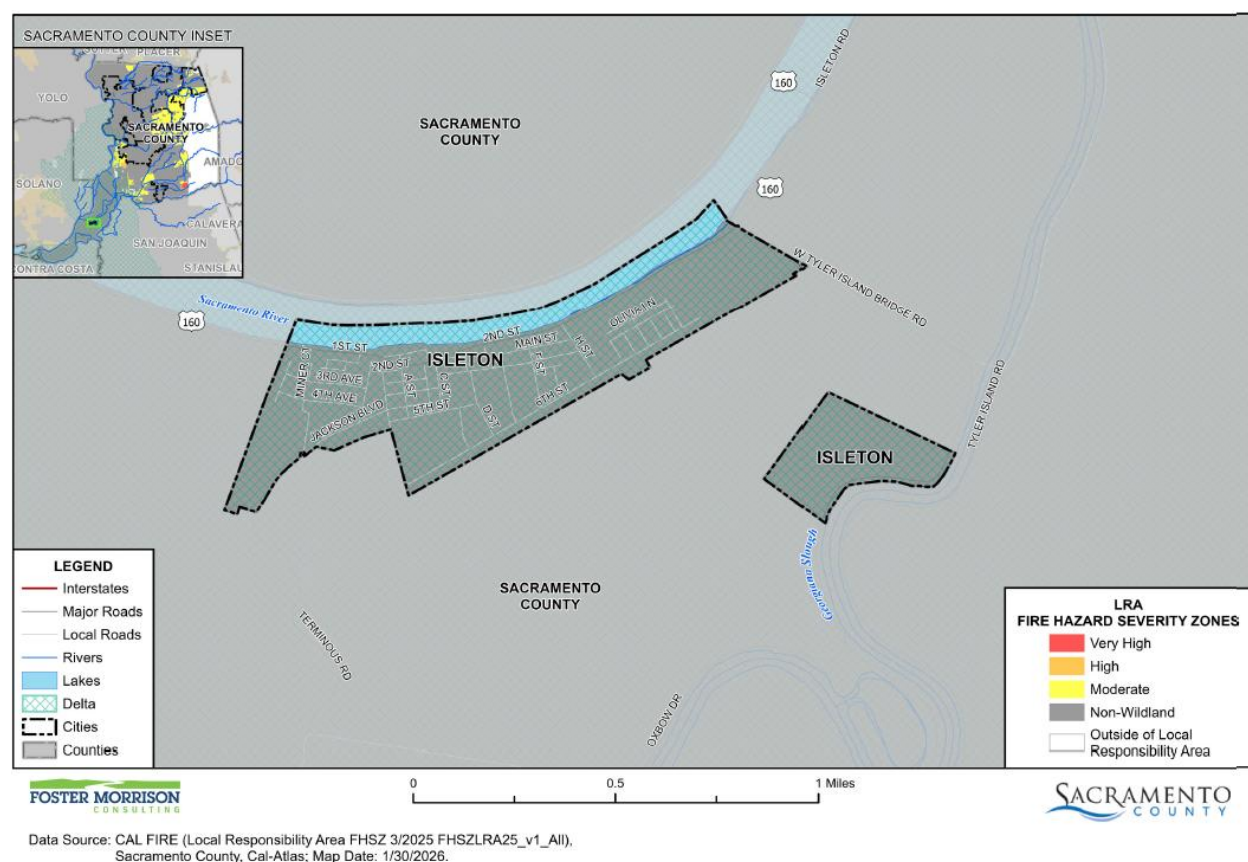


Figure 1-32 City of Isleton – CAL FIRE LRA Fire Hazard Severity Zones



Wildfires tend to be measured in structure damages, injuries, and loss of life as well as acres burned. Fires can have a quick speed of onset, especially during periods of drought or during hot dry summer months. Fires can burn for a short period of time or may have durations lasting for a week or more. Geographical FHSZ extents in the SRA/FRA are shown in Table 1-37, while extents in the LRA are shown on Table 1-38. As shown, the City sits outside of the SRA/FRA and fully inside the LRA. In the LRA, the FHSZs are all Non-Wildland.

Table 1-37 City of Isleton – CAL FIRE SRA/FRA Fire Hazard Severity Zone Geographical Extents

Fire Hazard Severity Zone	Total Acres	% of Total Acres	Improved Acres	% of Total Improved Acres	Unimproved Acres	% of Total Unimproved Acres
Very High	0	0%	0	0%	0	0%
High	0	0%	0	0%	0	0%
Moderate	0	0%	0	0%	0	0%
Non-Wildland/Non-Urban	0	0%	0	0%	0	0%
Urban Unzoned	0	0%	0	0%	0	0%

Fire Hazard Severity Zone	Total Acres	% of Total Acres	Improved Acres	% of Total Improved Acres	Unimproved Acres	% of Total Unimproved Acres
Outside of Federal / State Responsibility Area	233	100%	66	100%	167	100%
Total	233	100%	66	100%	167	100%

Source: CAL FIRE

Table 1-38 City of Isleton – CAL FIRE LRA Fire Hazard Severity Zone Geographical Extents

Fire Hazard Severity Zone	Total Acres	% of Total Acres	Improved Acres	% of Total Improved Acres	Unimproved Acres	% of Total Unimproved Acres
Very High	0	0%	0	0%	0	0%
High	0	0%	0	0%	0	0%
Moderate	0	0%	0	0%	0	0%
Non-Wildland	233	100%	66	100%	167	100%
Outside of Local Responsibility Area	0	0%	0	0%	0	0%
Total	233	100%	66	100%	167	100%

Source: CAL FIRE

Though the City falls into moderate or higher areas, it does not consider wildfire a priority hazard for mitigation planning purposes. Significance and priority of a hazard was determined based on frequency, extent, and resulting damage, including deaths/injuries and property, natural and cultural resources, and economic damage. The ability of a jurisdiction to reduce losses through implementation of existing and new mitigation measures was also considered as to the significance and priority of a hazard. This assessment was used by the City to prioritize those hazards of greatest significance, enabling the City to focus resources where they are most needed. As such, no additional analysis is presented for this hazard, due to its low significance in the City. Further, as a non-priority hazard, it will not be carried forward into the mitigation strategy for the City.

1.5 Capability Assessment

Capabilities are the programs and policies currently in use to reduce hazard impacts or that could be used to implement hazard mitigation activities. This capabilities assessment is divided into five sections: regulatory mitigation capabilities, administrative and technical mitigation capabilities, fiscal mitigation capabilities, mitigation education, outreach, and partnerships, and other mitigation efforts.

1.5.1. Regulatory Mitigation Capabilities

Table 1-39 lists regulatory mitigation capabilities, including planning and land management tools, typically used by local jurisdictions to implement hazard mitigation activities and indicates those that are in place in

the City of Isleton. ***This new table format has been prefilled with what was in the previous plan. Please update, and make sure to address the notes (third) column and the last cell of the table. The final table cell needs to be filled out as well.***

Table 1-39 City of Isleton’s Regulatory Mitigation Capabilities

Plans	In Place Y/N	Does the plan address hazards? Can the plan be used to carry out mitigation actions? When was it last updated??
Capital Improvements Plan	Y 2019	The capital improvement plan is in development
Climate Change Adaptation Plan	No	
Community Wildfire Protection Plan	No	City’s fire dept doesn’t cover any SRA or wildland coverage
Comprehensive/Master Plan	Y 2000	Yes it address hazards and mitigation measures to address such hazards. Yes it may be implemented
Continuity of Operations Plan	No	
Economic Development Plan	Y In Process	Yes to all aspects of the questions above
Land Use Plan	Yes	As part of General Plan
Local Emergency Operations Plan	Yes	The City of Isleton follows the State of California’s Plan
Stormwater Management Plan	Y In Process	It will address all aspects of above requirements
Transportation Plan	Yes	Only identifies mitigation strategy and actions
Other		
		Is the ordinance an effective way to reduce hazard impacts?
Land Use Planning and Ordinances	Y/N	Is the ordinance adequately administered and enforced?
Acquisition of land for open space and public recreation use	Y	Yes through the planning commission
Building code	Y	Ordinance is effective and adequately administered and enforced.
Flood insurance rate maps	Y	From FEMA DFIRMs.
Floodplain ordinance	Y	Ordinance is effective and adequately administered and enforced.
Natural hazard-specific ordinance (stormwater, steep slope, wildfire)		
Subdivision ordinance	Y	Yes through the planning commission and building official
Zoning ordinance	Y	Yes through the planning commission and building official
Other		

How can these capabilities be expanded and improved to reduce risk?

PROVIDE SPECIFIC DETAILS OF AREAS FOR IMPROVEMENT OF THESE TYPES OF CAPABILITIES AND HOW/WHY IT WILL HELP YOUR JURISDICTION. FROM PREVIOUS PLAN - With education incentives for employees and furthering education we can make sure that we improve in all aspects concerning the above departments. The planning commission is now fully appointed; they have started working with staff to improve in these fields.

Source: City of Isleton

1.5.2. Administrative/Technical Mitigation Capabilities

Table 1-40 identifies the City department(s) responsible for activities related to mitigation and loss prevention in the City of Isleton. ***This new table format has been prefilled with what was in the previous plan. Please update, and make sure to address the notes (third) column and the last cell of the table. The final table cell needs to be filled out as well.***

Table 1-40 City of Isleton's Administrative and Technical Mitigation Capabilities

Administration	In Place Y/N	Describe capability Is coordination effective?
Staff		Is staffing adequate to enforce regulations? Is staff trained on hazards and mitigation? Is coordination between agencies and staff effective?
Chief Building Official	Y (Part time)	Effective
Civil Engineer, including dam and levee safety	Y (Part time)	
Community Planner	N	
Emergency Manager	N	
Floodplain Administrator	N	
GIS Coordinator	N	
Planning Commission	Y	Effective
Other	Y	
Technical	Y/N	Has capability been used to assess/mitigate risk in the past?
Grant writing	N	
Hazard data and information	Y	
GIS analysis	N	
Mutual aid agreements	N	
Other		

How can these capabilities be expanded and improved to reduce risk?

PROVIDE SPECIFIC DETAILS OF AREAS FOR IMPROVEMENT OF THESE TYPES OF CAPABILITIES AND HOW/WHY IT WILL HELP YOUR JURISDICTION. FROM PREVIOUS PLAN - With new people filling these positions we will ensure that we do everything possible within budgetary means to reduce all risks posed to the public within our jurisdiction. By working in conjunction with county services we can expand our capabilities to provide the best coverage. Need more budget to address personnel deficiencies.

Source: City of Isleton

1.5.3. Fiscal Mitigation Capabilities

Table 1-41 identifies financial tools or resources that the City could potentially use to help fund mitigation activities. ***This new table format has been prefilled with what was in the previous plan. Please update, and make sure to address the notes (third) column and the last cell of the table. The final table cell needs to be filled out as well.***

Table 1-41 City of Isleton's Fiscal Mitigation Capabilities

Funding Resource	In Place Y/N	Has the funding resource been used in past and for what type of activities? Could the resource be used to fund future mitigation actions?
Capital improvements project funding	Y	Measure A and HUT funds are used on a regular basis to mitigate all hazards posed to the City of Isleton
Community Development Block Grant	Y	No possibly could be used for mitigation actions
Federal funding programs (non-FEMA)	Y	Depends on what funding was dispersed
Fees for water, sewer, gas, or electric services	Y	Sewer income is used to mitigate hazards and can be used to fund future actions but is not adequate to cover all costs.
Impact fees for new development	Y	Very little impact fees are paid to the city due to limited building being done inside city limits
State funding programs	Y	Depends on what funding was dispersed
Stormwater utility fee	N	
Other	Y	Yes a special tax was just passed 2015 to buy new equipment for the fire dept. Yes
How can these capabilities be expanded and improved to reduce risk?		
PROVIDE SPECIFIC DETAILS OF AREAS FOR IMPROVEMENT OF THESE TYPES OF CAPABILITIES AND HOW/WHY IT WILL HELP YOUR JURISDICTION. FROM PREVIOUS PLAN - Need capital and personnel to administer capital programs.		

Source: City of Isleton

1.5.4. Mitigation Education, Outreach, and Partnerships

Table 1-42 identifies education and outreach programs and methods already in place that could be/or are used to implement mitigation activities and communicate hazard-related information. ***This new table***

format has been prefilled with what was in the previous plan. Please update, and make sure to address the notes (third) column and the last cell of the table. The final table cell needs to be filled out as well.

Table 1-42 City of Isleton’s Mitigation Education, Outreach, and Partnerships

Program/Organization	In Place Y/N	How widespread are each of these in your community?
Community newsletters	N	
Hazard awareness campaigns (such as Firewise, Storm Ready, Severe Weather Awareness Week, school programs, public events)	Y	River Delta Unified School District
Local news	N	
Organizations that interact with underserved and vulnerable communities		
Social media		
How can these capabilities be expanded and improved to reduce risk?		
PROVIDE SPECIFIC DETAILS OF AREAS FOR IMPROVEMENT OF THESE TYPES OF CAPABILITIES AND HOW/WHY IT WILL HELP YOUR JURISDICTION. FROM PREVIOUS PLAN -		

Source: City of Isleton

1.5.5. Other Mitigation Efforts

The City has performed numerous mitigation projects citywide. One is the change out of old storm water grates that were causing localized flooding during heavy rain due to foliage clogging them. The City has also taken steps yearly to bring a vac truck to clean out the catch basins in the storm water drainage inlets to keep them from clogging the drainage pipes. The City has also taken steps to remove the brush from all stormwater drainage ditches that lead to the reclamation ditch in an effort to keep the flow unobstructed. Isleton has a leaf and branch collection program to prevent the clogging of drains.

CAN THE CITY PROVIDE A LIST OF PAST HAZARD MITIGATION TYPE PROJECTS AND ACTIVITIES THAT HAVE BEEN IMPLEMENTED BY HAZARD. INCLUDE ANY HAZARD RISK REDUCTION MEASURES REGARDLESS OF WHETHER IT WAS INCLUDED IN THE 2021 LHMP. PROVIDE A BULLETED LIST BY HAZARD. CAN INCLUDE MULTI-HAZARD AS A CATEGORY.

1.6 Mitigation Strategy

1.6.1. Mitigation Goals and Objectives

The City of Isleton adopts the hazard mitigation goals and objectives developed by the HMPC and described in Chapter 5 Mitigation Strategy.

1.6.2. NFIP Mitigation Strategy

The City of Isleton joined the National Flood Insurance Program (NFIP) on December 1, 1975. As a participant of the NFIP, the City of Isleton has administered floodplain management regulations that meet

the minimum requirements of the NFIP. The management program objective is to protect people and property within the City. The City of Isleton will continue to comply with the requirements of the NFIP in the future.

In addition, the City of Isleton actively participates with Sacramento County to address local NFIP issues through a regional approach. Many of the program activities are the same for the City of Isleton as for Sacramento County since participation at the County level includes all local jurisdictions.

The City of Isleton General Services Department provides public outreach activities which include map information services, public awareness, public hazard disclosure, and flood protection information. This information is readily available to the public and consists of current and accurate flood mapping. In addition, the General Services Department provides information about our stormwater management program and up-to-date information related to the maintenance of our drainage system.

The NFIP's Community Rating System (CRS) is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. As a result, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community actions meeting the three goals of the CRS which are to reduce flood losses, facilitate accurate insurance rating, and promote the awareness of flood insurance. The City of Isleton is not a current participant in the CRS program.

More information about the floodplain administration in the City of Isleton can be found in Table 1-43.

Table 1-43 City of Isleton Compliance with NFIP

NFIP Topic	Comments
Staff Resources	
Who is responsible for floodplain management in your community? Provide Department/Title. Do they serve any roles other than Community Floodplain Administrator (FPA)?	
Is the Community FPA or NFIP Coordinator a Certified Floodplain Manager?	
Is floodplain management an auxiliary function?	
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Due to budgetary shortfalls, there is no staff for NFIP coordination.
What are the barriers to running an effective NFIP program in the community, if any?	City revenue
Insurance Summary	
How many NFIP policies are in the community? What is the total premium and coverage?	50 policies \$17,515 in premiums \$12,068,000 in coverage
How many claims have been paid in the community? What is the total amount of paid claims? How many of the claims were for substantial damage?	23 paid claims \$467,013 in paid claims 7 substantial damage claims

NFIP Topic		Comments
How many structures (residential and non-residential) are exposed to flood risk within the community?	330 in 1% annual chance flood 0 in 0.2% annual chance flood	
Are there Repetitive Loss (RL) and Severe Repetitive Loss Properties (SRL) structures in the community?	1 RL (property use type unavailable) 0 SRL	
Describe any areas of flood risk with limited NFIP policy coverage	Of the 330 improved parcels within the 1% annual chance flood zone, 49 of those parcels maintain flood insurance.	
How does the community teach property owners or other stakeholders about the importance of flood insurance?		
What digital sources (like the FEMA Map Service Center, National Flood Hazard Layer) or non-regulatory tools does the community use?		
Compliance History		
Is the community in good standing with the NFIP?	Y	
Are there any outstanding compliance issues (i.e., current violations)?	N	
Who is responsible (Department, Title) for making substantial damage/improvement determinations? How does the community identify substantially damaged/improved structures? What is the process to make sure these structures are brought into compliance?		
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	CAV 5/13/2010 CAC 2/24/2022	
Is a CAV or CAC scheduled or needed?	N	
Regulation		
When did the community enter the NFIP?	12/1/1975	
Are the FIRMs digital or paper?	Digital	
Has the community adopted the NFIP minimum floodplain management criteria via local regulation? Date of current local regulation?		
Has the community adopted the latest effective FIRM? Date adopted?		
How does the community enforce local floodplain regulations and monitor compliance?		
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	The City's standards meet FEMA and state standards by applying all regulations in the permitting process.	
How are Letters of Map Change (LOMCs) tracked and compiled?		
Provide an explanation of the permitting process.	Planning and building departments review permits for compliance with floodplain requirements.	
Community Rating System		
Does the community participate in CRS? If so, what is the community's CRS Class Ranking?	No	

NFIP Topic	Comments
What categories and activities provide CRS points and how can the class be improved?	N/A
Does the plan include CRS planning requirements?	N/A

Source: City of Isleton

1.6.3. Mitigation Actions

The Planning Team for the City of Isleton identified and prioritized the following mitigation actions based on the risk assessment. Background information and information on how each action will be implemented and administered, such as ideas for implementation, responsible office, potential funding, and timeline are also included. The following hazards were considered a priority for purposes of mitigation action planning:

- Climate Change
- Flood: 1%/0.5%/0.2% annual chance
- Flood: Localized Stormwater
- Levee Failure
- Sea Level Rise
- Severe Weather: Heavy Rains and Storms (Hail, Lightning, Wind)

Low priority hazards for mitigation planning include:

- Aquatic Nuisance Species (plant/animal)
- Dam Failure
- Drought & Water Shortage (w/tree mortality)
- Earthquake (w/subhazards)
- Landslide, Mudslide, Debris Flow
- Severe Weather: Extreme Cold and Freeze
- Severe Weather: Extreme Heat
- Severe Weather: High Winds and Tornadoes
- Subsidence
- Wildfire (with smoke and air quality)

It should be noted that many of the projects submitted by each jurisdiction in Table 5-4 in the Base Plan benefit all jurisdictions whether or not they are the lead agency. Further, many of these mitigation efforts are collaborative efforts among multiple local, state, and federal agencies. In addition, the countywide public outreach action, as well as many of the emergency services actions, apply to all hazards and jurisdictions regardless of hazard priority. Collectively, this LHMP's multi-jurisdictional mitigation strategy includes only those actions and projects which reflect the actual priorities and capacity of each jurisdiction to implement over the next 5-years covered by this plan. It should further be noted, that each jurisdiction has focused on identifying those mitigation actions and projects to address their priority hazards, which are both realistic and reasonable for them to implement for this 5-year planning process, and would like to preserve their right to modify hazard priorities should future projects be identified where the implementing jurisdiction has the future capacity to implement. The participating jurisdictions are not obligated by this document to implement any or all of these projects. Rather this mitigation strategy represents the desires of the jurisdictions to mitigate the risks and vulnerabilities from identified hazards.

The actual selection, prioritization, and implementation of these actions will also be further evaluated in accordance with the mitigation categories and criteria contained in Appendix C.

Mitigation Actions

The City has put forward the actions as shown in Table 1-44. Details of the actions can be found below the table. **DOES THE CITY DESIRE TO KEEP THE ACTIONS FROM THE PREVIOUS PLAN**

Table 1-44 City of Isleton Mitigation Actions

Action Title	New Action/ Previous Action	Address Current Development	Address Future Development	Continued NFIP Compliance	Mitigation Type
Action 1. Integrate Local Hazard Mitigation Plan into Safety Element of General Plan	Previous Action	X	X		Prevention
Action 2. Enhance Public Education and Awareness of Natural Hazards and Public Understanding of Disaster Preparedness	Previous Action	X	X		Prevention Public Information
Action 3. Support climate change mitigation laws	Previous Action	X	X		Prevention Property Protection
Action 4. Levee Reinforcement Projects	Previous Action	X	X	X	Property Protection Structural Projects Natural Resource Protection
Action 5. Implement IFIP (Isleton Flood Improvement Plan) and create and activate IFMA (Isleton Flood Management Agency)	Previous Action	X	X	X	Prevention Property Protection Structural Projects Natural Resource Protection
Action 6. Create and activate IFMA (Isleton Flood Management Agency)	Previous Action	X	X	X	Prevention
Action 7. Storm Water Runoff Rehabilitation Project	Previous Action	X	X	X	Prevention Property Protection Natural Resource Protection
Action 8. Wastewater Treatment Plant Pond Levee Elevation Raise to 200-year Flood Standard	Previous Action	X	X	X	Property Protection Structural Projects

Action 1. Integrate Local Hazard Mitigation Plan into Safety Element of General Plan

Hazards Addressed: Multi-hazard (Climate Change, Drought & Water Shortage (w/tree mortality), Flood: 1%/0.5%/0.2% annual chance, Flood: Localized Stormwater, Levee Failure, Sea Level Rise, Severe Weather: Heavy Rains and Storms)

Goals Addressed: 1, 2, 3, 4, 5, 6, 7

Issue/Background (Problem Statement): Local jurisdictional reimbursement for mitigation projects and cost recovery after a disaster is guided by Government Code Section 8685.9 (Assembly Bill (AB) 2140). For eligible Public Assistance projects, the typical local (non-federal) cost share is 25% of the total project cost. The California Disaster Assistance Act (CDAA) can allow the state to pay up to 18.75% of the non-federal share that would otherwise fall to the county or city. Upon approval of the legislature, counties and cities that are AB 2140 compliant are also eligible to be considered for the remaining 6.25% local share to be funded by the state, essentially covering the entire local-share cost for eligible Public Assistance projects.

Project Description: AB 2140 compliance requires that each applicable jurisdiction (counties and cities) adopt the 2026 Sacramento County Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP) as part of the Safety Element of its General Plan in accordance with the CDAA and Cal OES AB 2140 guidance. Adoption of the LHMP into the Safety Element of the General Plan may be by reference or incorporation. The current approved LHMP must be easily accessible and available to the public viewing the Safety Element.

Other Alternatives: No action

Existing Planning Mechanisms through which Action will be Implemented: Safety Element of General Plan

Responsible Office/Partners: City Planning Department.

Benefits (Losses Avoided): Incorporation of an adopted LHMP into the Safety Element of the General Plan will help counties and cities maximize the cost recovery potential following a disaster.

Potential Funding (Local Budgets, Grant Funds, etc. by specific Type): Local budgets

Timeline: In conjunction with and/or within 1 year of adoption of the 2026 Sacramento County Multi-Jurisdictional LHMP Update

Project Priority: High

Action 2. Comprehensive Public Education, Outreach, and Awareness Program Enhancements for Natural Hazards and Public Understanding of Disaster Preparedness

Hazards Addressed: Multi-hazard (Climate Change, Drought & Water Shortage (w/tree mortality), Flood: 1%/0.5%/0.2% annual chance, Flood: Localized Stormwater, Levee Failure, Sea Level Rise, Severe Weather: Heavy Rains and Storms)

Goals Addressed: 1, 2, 3, 4, 5, 6, 7

Issue/Background (Problem Statement): Sacramento County, incorporated communities, and other local jurisdictions play a key role in public outreach and education efforts to communicate the potential risk and vulnerability of their community to the effects of natural hazards. A comprehensive, coordinated multi-hazard public education program will better inform the community of natural hazards of concern and actions

the public can take to be better prepared for the next natural hazard event or disaster. Effective public education can reduce hazard related losses and promote self reliance.

Project Description: A comprehensive multi-hazard education and outreach program will ascertain both broad and targeted educational needs throughout the community. The City will work with the County and other agencies as appropriate to develop timely and consistent annual outreach messages in order to communicate the risk and vulnerability of natural hazards of concern to Sacramento County communities. This includes measures the public can take to be better prepared and to reduce loss of life, damages, and other impacts from a hazard event. The public education effort will utilize effective outreach and communication strategies to reach all populations, will leverage and build upon existing mechanisms, and will consider:

- Using a variety of information outlets, including websites, local radio stations, news media, schools, and other local public events;
- Creating and distributing (where applicable) brochures, leaflets, water bill inserts, websites, and public service announcements;
- Displaying public outreach information in County, City, and other local agency office buildings, libraries, and other public places and events;
- Developing public-private partnerships and incentives to support public education activities; and
- Implementing other program components and enhancements identified over the next 5 years.

Other Alternatives: Continue public information activities currently in place.

Existing Planning Mechanism(s) through which Action Will Be Implemented: Existing City, County, and other agency outreach programs will be reviewed for effectiveness and leveraged and expanded upon to reach the broader region.

Responsible Office/Partners: City of Isleton Planning Department. Conducted in partnership with Sacramento County OES, County DWR, and County Public Information Department(s) and staff; Public Information and other applicable departments from other cities and local jurisdictions and agencies.

Benefits (Losses Avoided): Increased public knowledge of potential hazards of concern; the risk and vulnerability of Sacramento communities to natural hazards; and possible activities that can be undertaken to mitigate hazards and to be better prepared, before, during and after a hazard event. Protect lives and reduce damages. Relatively low cost to implement. Improve public response in an emergency or disaster.

Potential Funding (Local Budgets, Grant Funds, etc.): Local budgets (City General Fund, special revenue funds, CIP funding, staff time), CA DWR grants, Cal OES/FEMA grants (PDM, HMGP, FMA), or other funding sources.

Timeline: To be initiated within 1-2 years; Ongoing/Annual public education, outreach, and awareness campaign

Project Priority (High, Medium, Low): High

Action 3. Support climate change mitigation laws

Hazards Addressed: Climate Change

Goals Addressed: 1, 2, 3

Issue/Background (Problem Statement): Mitigating Climate Change in the City over the long run will require changes in laws and regulations.

Project Description: Support climate change mitigation laws

Other Alternatives: No action.

Existing Planning Mechanisms through which Action will be Implemented: Council resolution

Responsible Office/Partners: City of Isleton Board

Potential Funding (Local Budgets, Grant Funds, etc.): Local funding.

Benefits (avoided Losses): Reduced risk to the City, County, and State from climate change effects.

Schedule: Ongoing

Priority (H, M, L): Low

Action 4. Levee Reinforcement Projects

Hazards Addressed: Severe Weather: Heavy Rains and Storms, Flood, Levee Failure, Sea Level Rise

Goals Addressed: 1, 2, 3, 5, 6, 7

Issue/Background (Problem Statement): The City is protected from flooding by levees. The levees are not certified by FEMA as providing protection from 1% annual chance flooding.

Project Description: Reinforcement of levees in and around the City.

Other Alternatives: Implement Isleton Flood Management Agency

Existing Planning Mechanisms through which Action will be Implemented: No current mechanism.

Responsible Office/Partners: City of Isleton Public Works and Sacramento County DWR

Potential Funding (Local Budgets, Grant Funds, etc.): Grants from Cal OES, FEMA (FMA, BRIC, or PDM), CA DWR

Benefits (avoided Losses): Flood losses to the City could be avoided.

Schedule: Within 5 years

Priority (H, M, L): High

Action 5. Implement IFIP (Isleton Flood Improvement Plan) and create and activate IFMA (Isleton Flood Management Agency)

Hazards Addressed: Severe Weather: Heavy Rains and Storms, Flood, Levee Failure, Sea Level Rise

Goals Addressed: 1, 2, 3, 5, 6, 7

Issue/Background (Problem Statement): Stormwater and flooding adversely impact lives and facilities in City.

Project Description: Create and activate Isleton Flood Management Agency (IFMA) and implement Isleton Flood Improvement Plan (IFIP)

Other Alternatives: No action

Existing Planning Mechanisms through which Action will be Implemented: Form a flood management agency with operations goals and capital goals.

Responsible Office/Partners: City of Isleton Public Works and County DWR

Potential Funding (Local Budgets, Grant Funds, etc.): Grants from Cal OES, FEMA (FMA, BRIC, or PDM), CA DWR

Benefits (avoided Losses): Will mitigate floods both actively and passively.

Schedule: within 10 years

Priority (H, M, L): High

Action 6. Create and activate IFMA (Isleton Flood Management Agency)

Hazards Addressed: Severe Weather: Heavy Rains and Storms, Flood, Levee Failure, Sea Level Rise

Goals Addressed: 1, 2, 3, 5, 6, 7

Issue/Background (Problem Statement): Levee failure can cause catastrophic loss to residents and businesses in City.

Project Description: Create and activate Isleton Flood Management Agency (IFMA)

Other Alternatives: No action

Existing Planning Mechanisms through which Action will be Implemented: Obtain grant to study and develop plan to reinforce levee. Create and activate Isleton Flood Management Agency (IFMA)

Responsible Office/Partners: City of Isleton

Potential Funding (Local Budgets, Grant Funds, etc.): Grants from Cal OES, FEMA(FMA, BRIC, or PDM), CA DWR

Benefits (avoided Losses): Will mitigate levee damage after failure.

Schedule: within 10 years

Priority (H, M, L): High

Action 7. *Storm Water Runoff Rehabilitation Project*

Hazards Addressed: Flood, Localized Storm water flooding, Severe Weather: Heavy Rains and Storms

Goals Addressed: 1, 2, 3, 5, 7

Issue/Background (Problem Statement): : City of Isleton has several locations where the storm water causes ponding in the streets and along Hwy 160 due to inadequate drainage on aging storm water drainage system. The drainage system we have drains on one side of the street and bubbles up across the street and drains down the gutter. These gutters get overwhelmed which causes debris from yards and streets to clog up downstream drains.

Project Description: To change the flow of the storm water from running down gutters along the street to creating drains that take the flow under the streets to the reclamation ditch.

Other Alternatives: No action

Existing Planning Mechanism(s) through which Action Will Be Implemented: Stormwater program

Responsible Office/Partners: City of Isleton Department of Public Works

Project Priority: High priority

Benefits (Losses Avoided): The potential of car accidents due to heavy storm water ponding. The potential of flooding homes due to nowhere for the storm water to go.

Potential Funding (Local Budgets, Grant Funds, etc.): FEMA grants, Measure “A”, or other grants

Timeline: As soon as funding is available/ 1-3 years

Action 8. *Wastewater Treatment Plant Pond Levee Elevation Raise to 200-year Flood Standard*

Hazards Addressed: Climate Change, Flood, Localized Flood, Severe Weather: Heavy Rains and Storms

Goals Addressed: 1, 2, 3, 5, 7

Issue/Background (Problem Statement): There is a possibility that if the City has a 200-year flood event that the levees around the wastewater treatment plant ponds will not be sufficient, due to the fact they were made to protect against a 100-year flood. This action is intended to address the possible spillover of wastewater from the sewer ponds due to levee elevation under 200-year flood standard

Project Description: Levee elevation increase around wastewater treatment plant ponds

Other Alternatives: None

Existing Planning Mechanism(s) through which Action Will Be Implemented: Capital Improvement Projects for the City of Isleton Wastewater treatment plant

Responsible Office/Partners: City of Isleton Department of Public Works

Project Priority: High Priority

Cost Estimate: \$1M

Benefits (Losses Avoided): The benefit would be that if a flood happened there would be adequate protection to keep wastewater from contaminating drinking water and the public's health and safety

Potential Funding (Local Budgets, Grant Funds, etc.): FEMA grants, other grants, and impact fees from new homes built within the City of Isleton

Timeline: 1 - 3 years