



Annex E City of Rancho Cordova

E.1 Introduction

This Annex details the hazard mitigation planning elements specific to the City of Rancho Cordova, 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 Rancho Cordova, with a focus on providing additional details on the planning process, risk assessment, and mitigation strategy for this jurisdiction.

E.2 Planning Process

As described above, the City of Rancho Cordova 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 E-1. Additional details on Plan participation and City representatives are included in Appendix A.

Table E-1 City of Rancho Cordova – Internal Planning Team

Name	Position/Title	How Participated
Lindsay Morrow	Senior Environmental Planner	Attended Hazard Mitigation Plan meetings, reviewed and revised the document. Proposed Mitigation Planning Action items.
Nicholas Sosa	Senior Planner	Provides Hazard Mitigation Plan annual report to City Planning Commission.
Arlene Granadosin-Jones	Planning Manager	Reviewed and revised the plan document. Provided information for the update.
Darcy Goulart	Community Development Director	Reviewed and revised the plan document. Provided information for the update.
Stefan Heisler	Housing Manager	Reviewed the plan document and provided updates related to the Climate Change or Housing sections.
Jeremiah Ziling	Chief Building Official	Reviewed the plan document and provided updates related to the Building & Safety Division.

Name	Position/Title	How Participated
Wyatt Peters-Soliz	Building Permit Services Supervisor	Reviewed the plan document and provided updates related to the Building & Safety Division.
Lorianne Carl	Community Engagement Manager	Reviewed the plan document and provided updates related to the vulnerable populations.
Matt Buland	Management Analyst	Reviewed the plan document and provided updates related to the vulnerable populations.
Amanda Norton	Economic Development Director	Reviewed the plan document and provided updates related to Economic Development data.
Lydia Thung	Economic Development Analyst	Reviewed the plan document and provided updates related to Economic Development data.
Albert Stricker	Public Works Director	Provided information related to Public Works data and general oversight.
Margarita Dronov	Senior Civil Engineer	Attended Hazard Mitigation Plan meetings, reviewed and revised the document. Proposed Mitigation Planning Action items. Provide general oversight of the plan update.
Maria Lopez	Operations & Maintenance Manager	Reviewed the plan document and provided updates related to local flooding.
Laurel Bane	Management Analyst	Reviewed the plan document and provided updates related to City facilities, cooling, and heating centers.
Abby Thornton	GIS	Provided updates related to GIS data.
Matt Thomas	Facilities Manager	Reviewed the plan document and provided updates related to EOC activations, capability assessments
Russel Ducharme	Neighborhood Services Director	Reviewed the plan document and provided updates related to EOC activations, capability assessments, enforcement.
Danielle Hale	Communications Officer	Reviewed the plan document and provided updates related to education and outreach.
Quoc Nham	Principal Civil Engineer	Attended Hazard Mitigation Plan meetings. Provided information related to Public Works data and general oversight.
Veronica Aponte	Assistant Civil Engineer	Attended Hazard Mitigation Plan meetings. Reviewed the plan document and provided updates related to local flooding.
Dang Bui	Assistant Civil Engineer	Reviewed the plan document and provided updates related to local flooding.
Jacob Nunez	Management Analyst	Reviewed the plan document and provided updates related to Public Assistance claims

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 E-2.

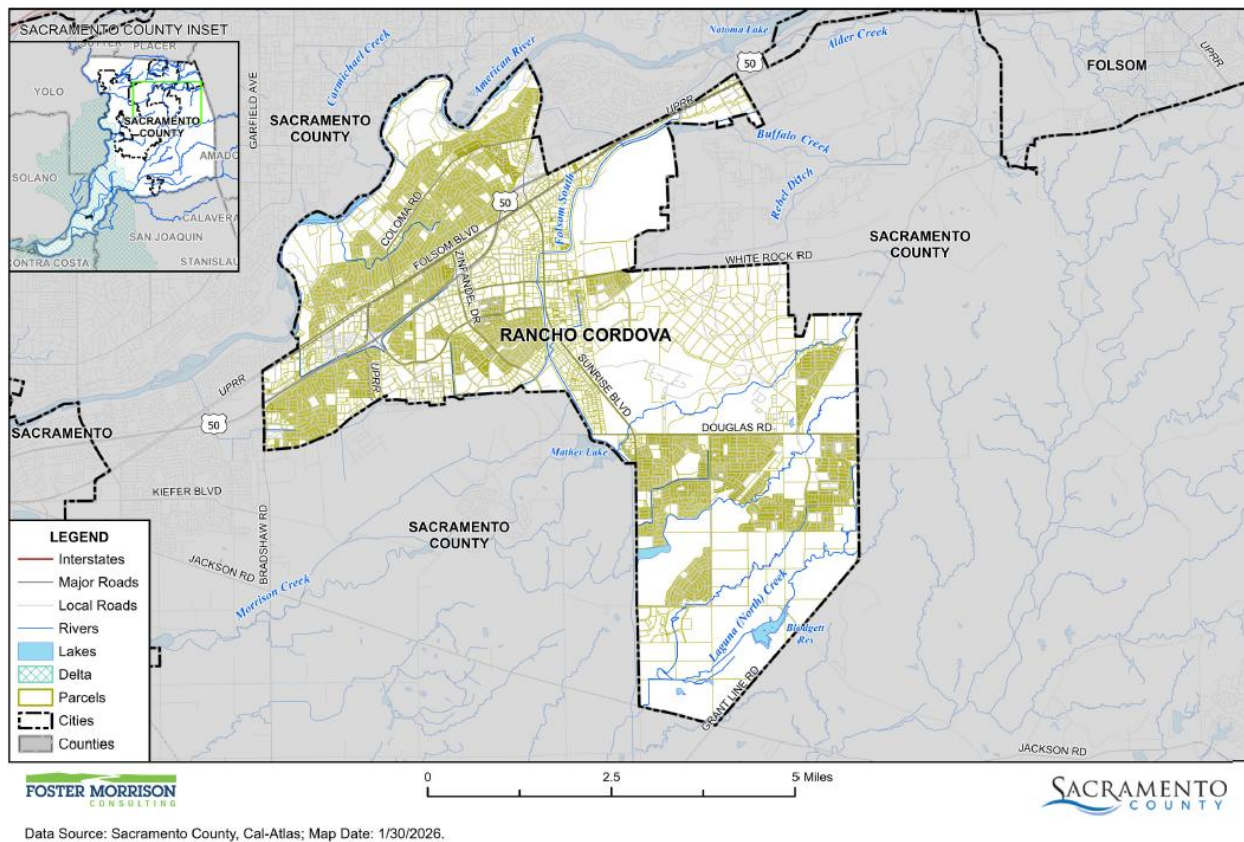
Table E-2 2021 LHMP Incorporation

Planning Mechanism 2021 LHMP Was Incorporated/Implemented In.	Details: How was it incorporated?
Adoption of the LHMP into the Safety Element of the General Plan by reference or incorporation City of Rancho Cordova 2050 General Plan Update	The Hazard Mitigation plan was adopted within the General Plan under the Safety element in February 2025 in compliance with AB 2140 requirements.
Rancho Cordova Climate Action and Adaptation Plan	Mirrors some actions in the LHMP mitigation actions: drought resistance, wildfires, extreme precipitation and flooding, increased temperatures and extreme heat.
Transportation interconnectivity: ensure interconnectivity and road standards are maintained for disaster preparedness/evacuations	On-going LHMP mitigation action. Provided during subdivision review. Interconnectivity is a Goal within the General Plan Circulation Element
Land Use: as the City grows towards the south and east, cluster development and open space will be encouraged	On-going LHMP mitigation action. Open space land provided in environmentally sensitive areas (preserves). Provided through environmental review during Specific Plan and Special Plan Area. In addition, a Goal within the General Plan Open Space Element.
Post disaster training for staff	On-going LHMP mitigation action. Staff Supervisors have attended and are scheduled to attend training classes
Landscape Ordinance (update and maintain proper landscaping practices)	On-going LHMP mitigation action. All development is reviewed by a landscape reviewer that checks for water efficient sprinklers and drip for drought tolerant plants. Water efficient requirements are adopted within the city municipal code.
Restrict impervious surface	On-going LHMP mitigation action. City zoning code restricts Impervious surface area for residential front yard area. Porous pavement and vegetative buffers. On-going action. Increase use due to LID standards and 2020 drainage requirements for on-site retention.
Roundabouts (encourage roundabouts in place of traffic signals where appropriate)	On-going LHMP mitigation action. Encourage developers to utilize roundabouts during Specific Plan, Special Plan Areas, and subdivision reviews. A Citywide Roundabout Feasibility Study and Implementation Plan was presented to the Rancho Cordova City Council for approval in March 2024.

E.3 Community Profile

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

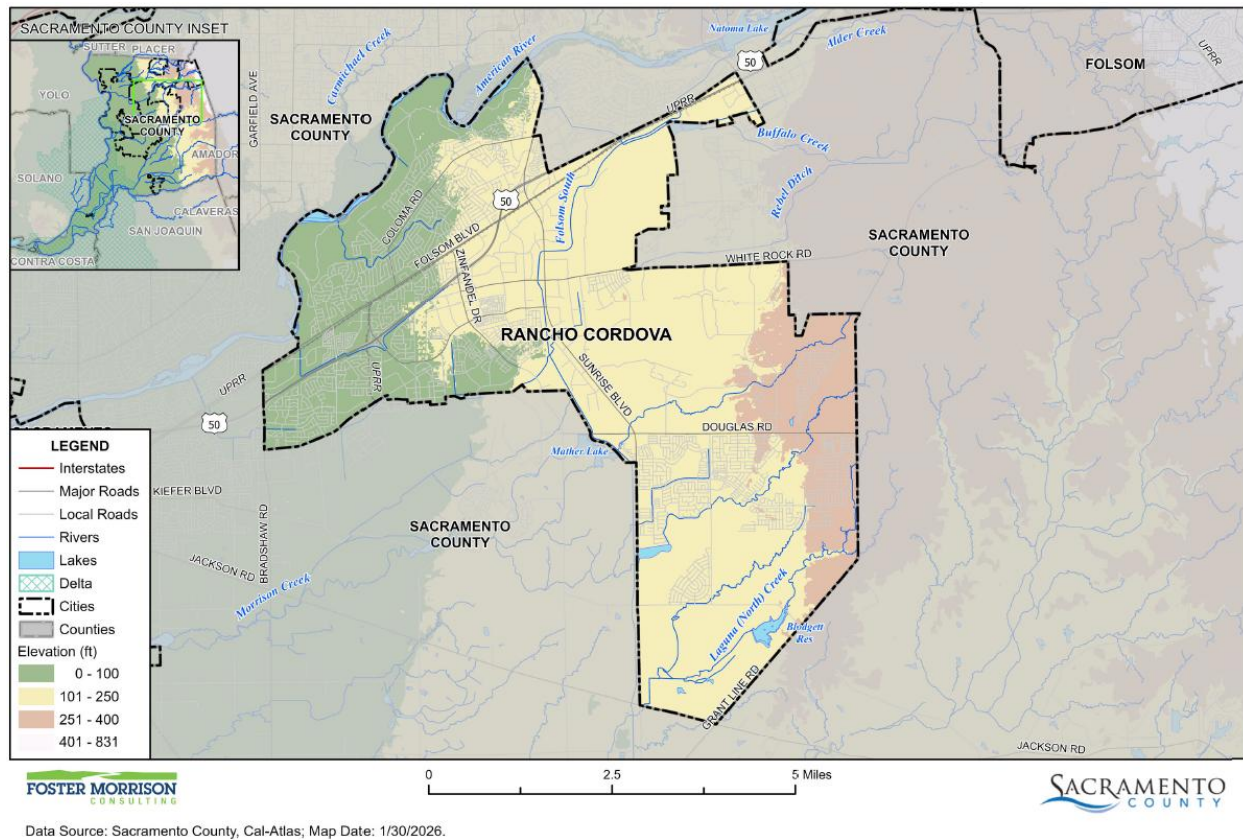
Figure E-1 City of Rancho Cordova



E.3.1. Geography and Climate

The City of Rancho Cordova is located in northern Sacramento County, California within the Highway 50 corridor between the cities of Sacramento to the west, Folsom to the northeast, Elk Grove to the southwest and the unincorporated community of Fair Oaks to the north. Rancho Cordova covers approximately 34.8 square miles of land, the majority of which historically consisted of flat grassland and oak woodlands. The City is generally bordered by the American River to the north, Hazel Ave and the boundary of the 100-year floodplain for the Consumnes River on the east, Jackson Highway on the south, and Bradshaw Road on the west. Elevations in the City are shown on Figure E-2.

Figure E-2 City of Rancho Cordova – Elevations



The City of Rancho Cordova contains a wide range of existing land uses, including approximately 3,582 acres of residential developments, 441 acres of commercial/retail uses, 894 acres of office uses, and approximately 837 acres of industrial uses within the City limits. In addition, there are approximately 9,746 acres of agricultural (vacant) uses, and over 2,198 acres of public/private recreation and natural preserve uses. Mather Airport is located along the southwest boundary of the City, and the Aerojet Rocket Testing Facility is located to the east.

Located within the City are various creeks, tributaries, drainage basins and surface waterways including: the American River, Cordova Creek, Morrison Creek and its tributaries, Laguna Creek, Buffalo Creek and the Folsom South Canal. The American River parkway on the City's northern boundary is a portion of a 29 mile open space greenbelt that provides flood protection and recreational opportunities within the City limits. The floodplain of the Cosumnes River is located to the southeast of the City's boundary.

Rancho Cordova, like much of the California Central Valley has a Mediterranean climate characterized by damp to wet, mild winters and hot, dry summers. The wet season runs from October through April, though there is occasional light rainfall in the summer months. The annual temperature mean is 61.1 °F, with monthly means ranging from 45.8°F in December to 75.4 °F in July. Summer high temperatures are often moderated by an ocean breeze known as the "delta breeze": which comes through the Sacramento-San Joaquin River Delta from the San Francisco Bay.

E.3.2. History

The earliest evidence of human occupation in the Rancho Cordova area is archaeological explorations of the Windmill Pattern which dates from 4,500-2,500 Before Present (B.P.). Evidence suggests populations during this early horizon probably emphasized hunting and fishing, with seed collecting as a supplement to the diet. Later occupations during the Middle (2,500 B.P.-A.D. 500) and Late Horizons (A.D. 500-to Euroamerican contact) show similarities to the Early horizon culture, though local innovation or cultural blending seems to have resulted in intensive fishing, acorn use, and elaborate social and ceremonial customs.

Rancho Cordova and the surrounding area are in Valley Nisenan territory, one of a large population of Native Americans groups that inhabited a variety of ecological settings California prior to the arrival of Euroamericans. The Nisenan historically lived in permanent villages that were usually located on raised areas to avoid flooding. Organized around household family or household units that combined to form tribelets, the Valley Nisenan fostered trading relationships with surrounding groups for commodities such as salt, marine shells, and basketry.

Spanish exploration of the Central Valley dates to the late 1700s, but exploration of the Northern section of the Central Valley and contact with its Native American population did not begin until the early 1800s when Spanish missionaries moved in from the coastal areas. In 1833, the missions were secularized and their lands divided among the Californians as land grants called ranchos. These ranchos, such as the 35,000-acre Rancho Rio de los Americanos, part of which is located within the City, facilitated the growth of a semi-aristocratic group that controlled the large ranchos.

During the middle of the 19th century trails were being blazed across the plains and mountains facilitating the westward migration of Euroamericans. Rancho Rio de los Americanos however remained largely undeveloped until the discovery of gold in 1848 which resulted in a flood of Euroamericans in the region and caused a dramatic alteration of both Native American and Euroamerican cultural patterns. The second half of the nineteenth century witnessed an ongoing and growing immigration of Euroamericans into the area, an influx also accompanied by regional cultural and economic changes. These changes are highlighted by the development of the Rancho Cordova area associated with expanding business opportunities related to gold mining, agriculture, and/or ranching.

On July 1, 2003, after more than 20 years of advocacy, the City of Rancho Cordova officially incorporated, becoming the 478th city in the State of California. Located in the eastern part of Sacramento County, Rancho Cordova is a community with a rich history including the first 12 miles of railroad in California, a thriving military base in its time, and the home of a successful aerospace company.

E.3.3. Economy and Tax Base

US Census estimates show economic characteristics for the City of Rancho Cordova. These are shown in Table E-3 and Table E-4. Mean household income in the City was \$106,666. Median household income in the City was \$84,623.

Table E-3 City of Rancho Cordova – Civilian Employed Population 16 years and Over

Industry	Estimated Employment	Percent
Agriculture, forestry, fishing and hunting, and mining	97	0.2%
Construction	2,679	6.6%
Manufacturing	2,044	5.0%
Wholesale trade	432	1.1%
Retail trade	4,631	11.4%
Transportation and warehousing, and utilities	4,240	10.4%
Information	243	0.6%
Finance and insurance, and real estate and rental and leasing	2,420	5.9%
Professional, scientific, and management, and administrative and waste management services	5,188	12.7%
Educational services, and health care and social assistance	10,048	24.7%
Arts, entertainment, and recreation, and accommodation and food services	2,896	7.1%
Other services, except public administration	897	2.2%
Public administration	4,882	12.0%

Source: US Census Bureau American Community Survey 2023 Estimates

Table E-4 City of Rancho Cordova – Income and Benefits

Income Bracket	Percent
<\$10,000	11.8%
\$10,000 – \$14,999	2.0%
\$15,000 - \$24,9999	4.1%
\$25,000 – \$34,999	4.0%
\$35,000 – \$49,999	6.5%
\$50,000 – \$74,999	16.0%
\$75,000 – \$99,999	12.8%
\$100,000 – \$149,999	16.6%
\$150,000 – \$199,999	12.%
\$200,000 or more	14.0%

Source: US Census Bureau American Community Survey 2023 Estimates

Major employers in the vicinity are shown in Section E.4.1.

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 E-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 E-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

E.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 Rancho Cordova 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:

- E.4.1 Assets Inventory and Growth and Development Trends
- E.4.2 Hazard Identification
- E.4.3 Hazard Profiles and Vulnerability to Specific Hazards

E.4.1. Assets Inventory and Growth and Development Trends

This section provides an inventory of the City of Rancho Cordova'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 Rancho Cordova'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 E.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 E.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 Rancho Cordova has 85,789 residents, as of January 1, 2025. The City of Rancho Cordova has seen growth rates as shown in Table E-6. As shown, the City has grown consistently since 1960, with growth slowing recently since the 2021 LHMP.

Table E-6 City of Rancho Cordova – Population Changes Since 1960

Year	Population	% Change
1960	7,429	—
1970	30,451	309.9
1980	42,881	40.8%
1990	48,731	13.6%
2000	55,060	13.0%
2010	64,776	17.6%
2020	79,332	22.5%
2025	85,789	8.14%

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

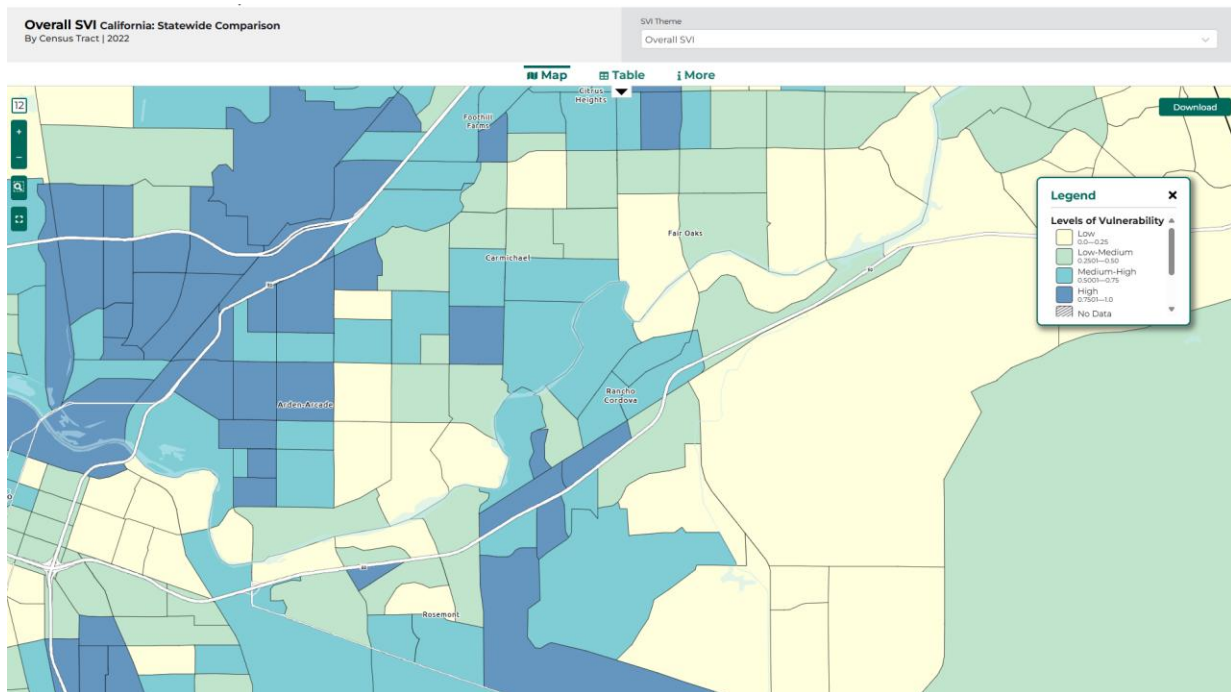
Every community must prepare for and respond to a hazard event, including the range of natural hazards addressed in this Plan, from severe weather extremes to large potentially catastrophic events such as floods or wildfires. A number of factors, including poverty, lack of access to transportation, and 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 E-3; the socioeconomic SVI for the census tracts in and around the City are shown in Figure E-4; the household composition SVI is shown in Figure E-5; the minority and language SVI is shown in Figure E-6; and the housing and transportation SVI is shown in Figure E-7. Overall, the maps indicate that, in general, the City sees little to moderate change in social vulnerability across the City. As shown, there are moderate changes in each SVI across the City.

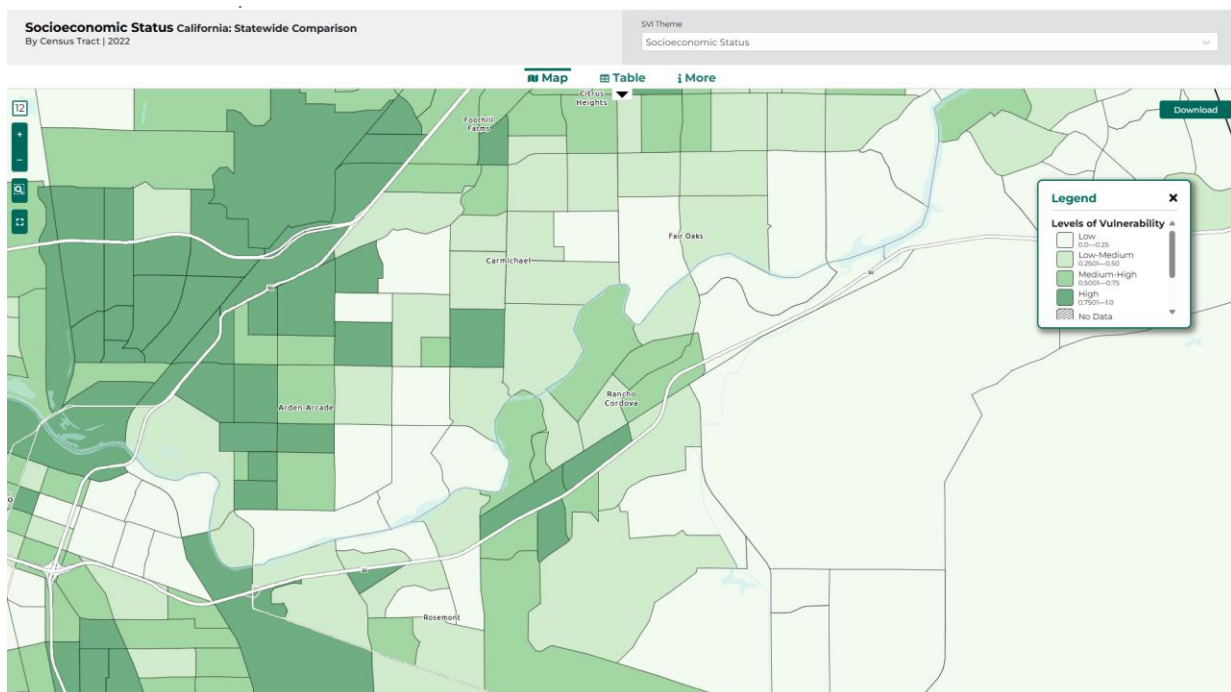
Figure E-3 City of Rancho Cordova – Overall Social Vulnerability



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

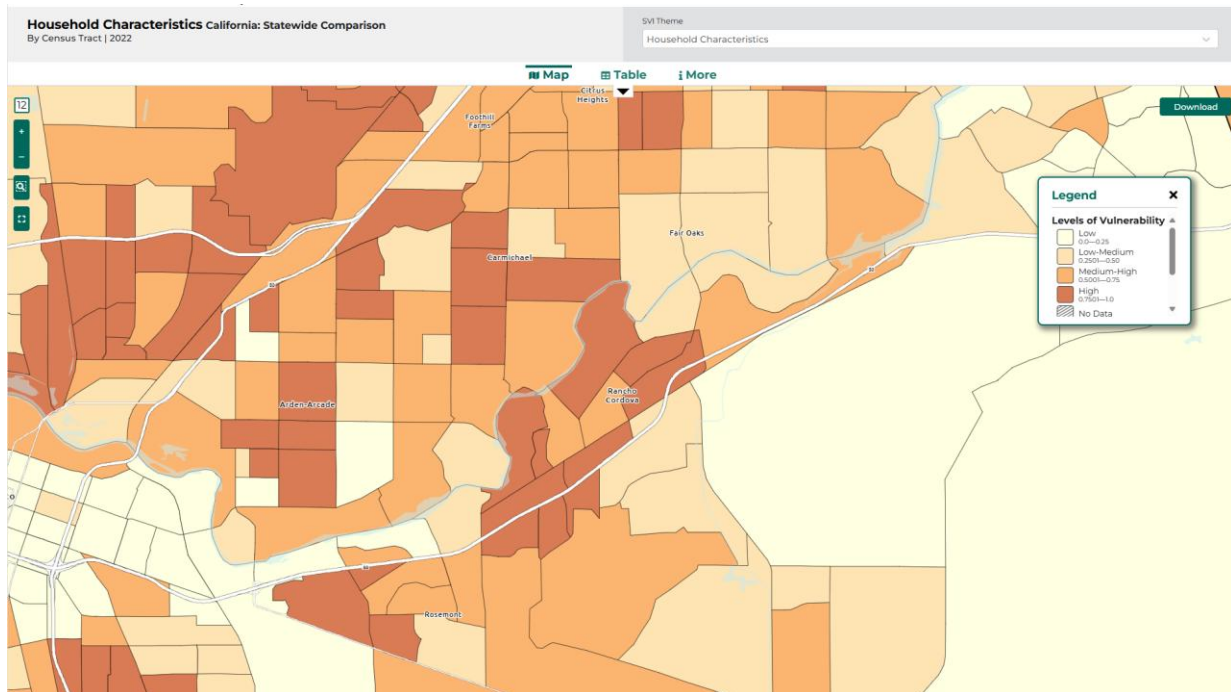
Figure E-4 City of Rancho Cordova – Socioeconomic Status Vulnerability



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

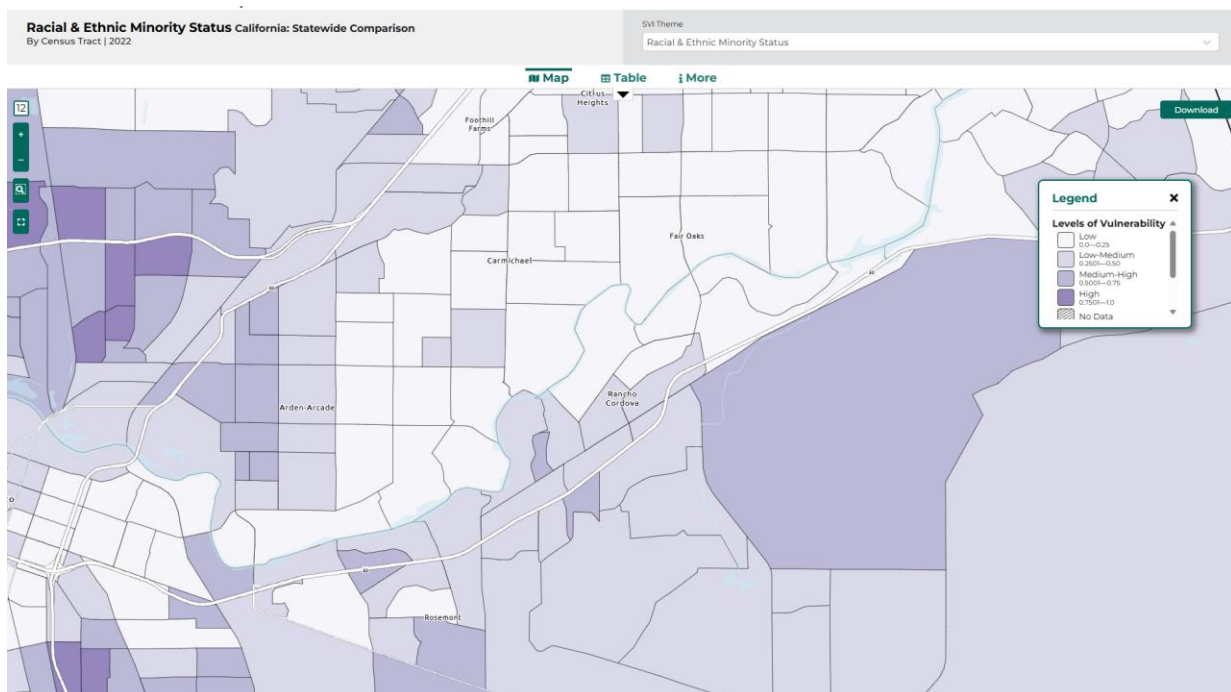
Figure E-5 City of Rancho Cordova – Household Characteristics



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

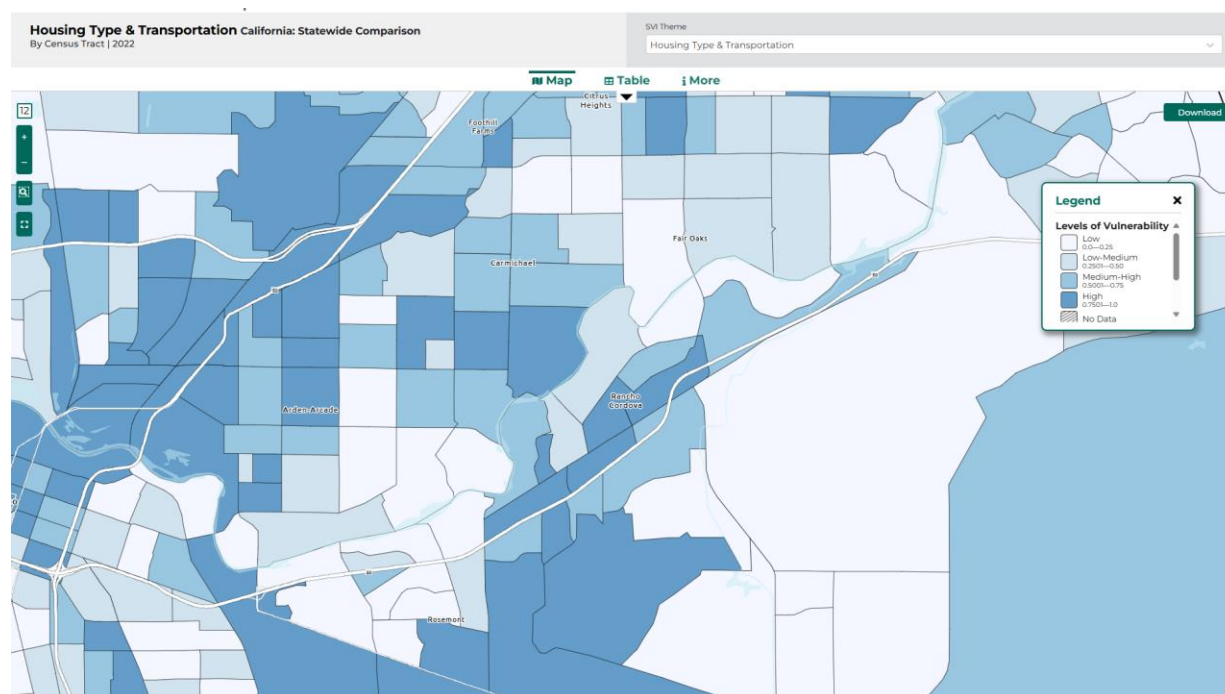
Figure E-6 City of Rancho Cordova – Racial and Ethnic Minority Status



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 E-7 City of Rancho Cordova – Housing Type and Transportation



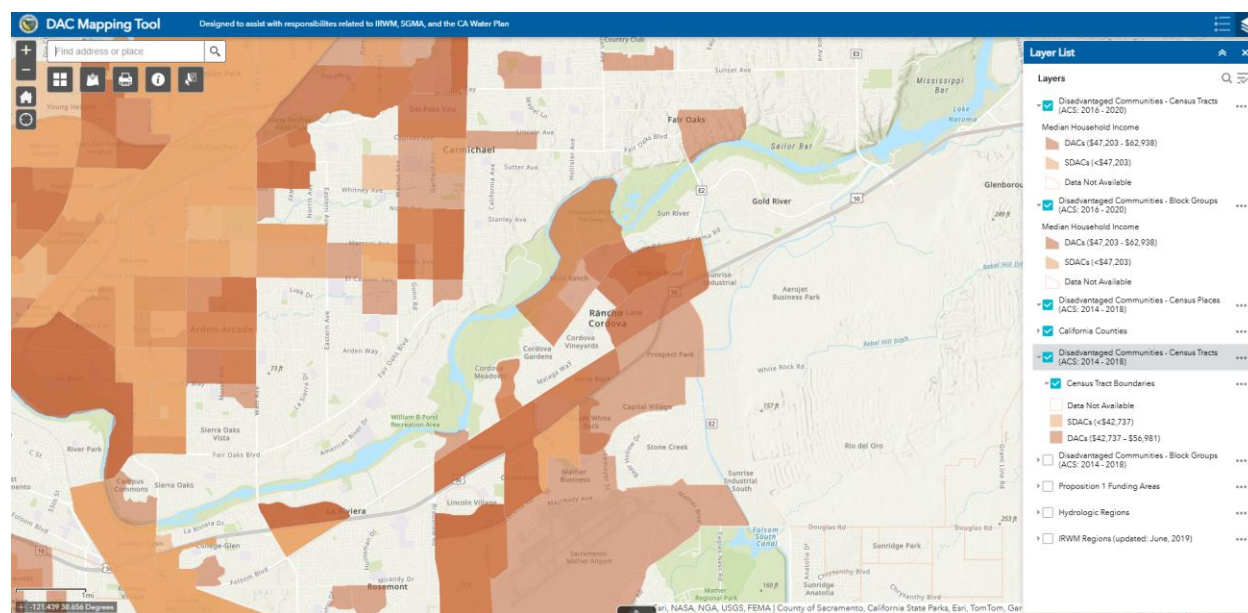
Source: CDC Social Vulnerability Index – map retrieved 9/22/2025

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 E-8. As shown, much of the City falls in these DAC areas.

Figure E-8 City of Rancho Cordova – Disadvantaged Areas



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

City Planning Team Input

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

The City of Rancho Cordova includes vulnerable and underserved populations that may be disproportionately impacted by hazard events. The 2024 U.S. Census data indicates that 12.4% of Rancho Cordova’s population is age 65 and over, 11.2% of residents under age 65 have a disability (compared to 7.6% statewide), and 12.2% of residents live in poverty (compared to 11.8% statewide). Additionally, 4,279 residents are veterans, and 39.0% of individuals age 5 and older speak a language other than English at home, indicating a need for multilingual communication and outreach.

At the state level, the California Office of Environmental Health Hazard Assessment (OEHHA) identifies disadvantaged communities using CalEnviroScreen 4.0, a tool that evaluates cumulative environmental, health, and socioeconomic burdens. Based on this methodology, Rancho Cordova includes four census tracts designated as SB 535 Disadvantaged Communities, which are prioritized for state climate investment funding. In addition, one census tract within the city ranks in the 90th–100th percentile statewide, with surrounding areas also ranking in moderate to high percentiles, indicating elevated levels of environmental and population vulnerability.

According to the 2024 Sacramento region point in time count, about 52 people experiencing homelessness live in the City of Rancho Cordova, down from about 156 in the 2022 count. Data from the 2026 point in time count is in progress. Homeless individuals who have no shelter are most susceptible to the effects of hazard events or natural disasters.

The City has programs in place, such as the Homeless Outreach Team and two Homeless Navigators, to connect homeless individuals with services and resources; Mather Veterans Village(s), permanent supportive and transitional housing for 150 homeless and disabled veterans and their families; and a commitment of \$1.6 million annually to address homelessness.

City of Rancho Cordova 2021-2029 Housing Element

The City Planning Team noted that the Rancho Cordova 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, developmental disabilities, people experiencing homelessness, large households, female headed households, farmworkers, and extremely low-income housing are included. These are discussed below.

Seniors

According to the 2014–2018 ACS, 8,428 persons in Rancho Cordova are 65 years and older, and these seniors account for approximately 12 percent of the City's total population. While the City of Rancho Cordova has 8,428 seniors in the City population, there are 4,871 senior households. A senior household is where the head of the household is a senior. Of the senior households, approximately 77 percent own their own homes, and 23 percent rent homes.

Rancho Cordova has one major skilled nursing facility and nine smaller licensed residential care homes that provide care and assistance to elderly residents who are partially self-sufficient. Assisted living is provided mainly in smaller facilities. The affordability of these facilities is difficult to assess, as the actual cost of care at many homes varies widely and is based on the amount of care that an individual resident requires.

Seniors needing less care than offered by an assisted living facility may choose to live in a senior-oriented rental complex. In July 2020, Coloma Woods was the only age-restricted affordable complex for seniors age 62 and older in Rancho Cordova. Coloma Woods has 28 one-bedroom units. The project is federally financed and therefore the rents are 30 percent of each tenant's income, the common standard of affordability. In 2026, there were two additional age-restricted independent communities including Bear Hollow Estates (rental apartments) and Four Seasons at The Ranch (active adult, 55+ community of new-construction single family homes).

Disabled Citizens

According to the 2014-2018 American Community Survey estimates, 6775 persons within the City have one or more disabilities. 2,588 of those are in the labor force, 473 are unemployed and 3,714 are not in the labor force at all.

In order to accommodate persons with disabilities, residential care facilities for six or fewer adults are allowed in the City's residential zones by right. Residential care facilities with more than six adults are permitted in all residential land use zones in the City by obtaining a conditional use permit. Conditional use permits require that the facility provide plans that are approved by the fire department prior to any approval as well as any additional fire protection measures that may be required, that the facility obtain a City

business license, and also that the facility be a minimum of 1,000 feet from any other residential care home facilities.

People with Developmental Disabilities

The California Department of Developmental Services currently provides community-based services to approximately 243,000 persons with developmental disabilities and their families through a statewide system of 21 regional centers, four developmental centers, and two community-based facilities. The Alta Regional Center is one of 21 regional centers in California that provide point of entry to services for people with developmental disabilities. The center is a private, nonprofit community agency that contracts with local businesses to offer a wide range of services to individuals with developmental disabilities and their families.

The Alta Regional Center designs programs according to age, specialization, and geographic location. Within the City, there are 644 people with a developmental disability. In order to assist in the housing needs for persons with developmental disabilities, the City will implement programs to coordinate housing activities and outreach with the Alta Regional Center and encourage housing providers to designate a portion of new affordable housing developments for persons with disabilities, especially persons with developmental disabilities, and pursue funding sources designated for persons with special needs and disabilities. Action H.3.3.1 implements state and federal requirements to not exclude persons with physical and developmental disabilities from participating in housing programs.

People Experiencing Homelessness

Between the 2017 and 2019 Point in Time (PIT) counts, the number of individuals experiencing homelessness increased by just over 65 percent, and the majority of that growth occurred within the unsheltered population. Approximately 30 percent of the population who were experiencing homelessness were experiencing chronic homelessness. The 2019 PIT count also surveyed unsheltered persons regarding their sexual and gender orientation and estimated that 9 percent of unsheltered persons identify as LGBT. As of the 2019 PIT count, 249 of the county's 3,900 unsheltered residents experiencing homelessness were in Rancho Cordova, representing approximately 6 percent of the unsheltered homeless population. An officer from the Homeless Outreach Team at the Rancho Cordova Police Department was able to confirm that this estimate of 249 homeless residents in the City was an accurate estimate of the typical homeless population.

Large Households

According to the 2014–2018 ACS, just under 13 percent of all households in Rancho Cordova (12.6 percent of owner households and 12.7 of renter households) include five or more persons (totaling 3,191 households). Of the large households, 55.2 percent (1,761 households) are owners and 44.8 percent (1,430 households) are renters. According to the 2014–2018 ACS, 63.1 percent of the housing units in the area have three or more bedrooms. Approximately 86 percent of the owner-occupied housing units and 34.6 percent of the renter-occupied housing units have three or more bedrooms, according to the 2014–2018 ACS. As the majority of three-bedroom or larger units in the City are owner occupied, rental housing for large family households may be far more difficult to find.

Female Headed Households

According to data from the 2014–2018 ACS, 4,217 households, or 24.4 percent of all family households in Rancho Cordova, are female-headed households. Female-headed households comprise the overwhelming majority of all single-parent households. Of households headed by a female, 51.2 percent (2,159 households) have related children under 18 present. Of the 2,448 female-headed households with related children under 18, 36.1 percent are classified as below the poverty level.

Farmworkers

Agricultural workers earn their primary income through permanent or seasonal agricultural labor. According to the 2014–2018 ACS, less than 1 percent of all employed persons in Rancho Cordova work in the farming, forestry, and fishing occupation. The types of agricultural production in the City does not require large numbers of migrant and seasonal farm laborers, and a large influx of farm labor does not occur. It is assumed that the housing need for the limited number of farmworkers in the City is met through existing housing.

Any application for farmworker housing is treated in the same way as other affordable housing projects, and the resources the City has to offer for affordable housing are available for the development of the project. Incentives such as expedited permitting process, streamlining, and modification of development standards are available for the production of farmworker housing. Development standards and requirements for agricultural employee (farmworker) housing, can be found within the City’s Municipal Code.

Extremely Low-Income Households

Extremely low-income households typically comprise persons with special housing needs, including but not limited to persons experiencing homelessness or near-homelessness, persons with substance abuse problems, and farmworkers. There are approximately 3,410 extremely low-income households in the City. Of which 2,390 households (9.9 percent) rent their home and 1,020 households (4.2 percent) own their home. (CHAS 2012–2016). The City’s Zoning Code allows for SROs with a conditional use permit in the RD-20, RD-25, and RD-30 zones.

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 E-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 E-7 City of Rancho Cordova – 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	23	3	\$7,507,713	\$155,361	\$155,361	\$7,818,435
Care / Health	15	13	\$8,394,307	\$50,765,245	\$50,765,245	\$109,924,797
Church / Welfare	34	33	\$21,788,709	\$70,784,988	\$70,784,988	\$163,358,685
Industrial	753	717	\$419,354,194	\$1,171,606,763	\$1,757,410,145	\$3,348,371,102
Miscellaneous	805	3	\$1,178,251	\$1,050,563	\$1,050,563	\$3,279,377
Office	280	249	\$293,606,989	\$1,114,911,821	\$1,114,911,821	\$2,523,430,631
Public / Utilities	59	0	\$19	\$0	\$0	\$19
Recreational	16	10	\$9,199,542	\$23,785,160	\$23,785,160	\$56,769,862
Residential	23,091	22,806	\$2,597,507,061	\$7,249,101,304	\$3,624,550,652	\$13,471,159,017
Retail / Commercial	280	262	\$274,020,343	\$527,405,210	\$527,405,210	\$1,328,830,763
Unknown	110	0	\$0	\$0	\$0	\$0
Vacant	2,745	39	\$511,395,651	\$11,255,087	\$0	\$522,650,738
Rancho Cordova Total	28,211	24,135	\$4,143,952,779	\$10,220,821,502	\$7,170,819,145	\$21,535,593,426

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 Rancho Cordova below.

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

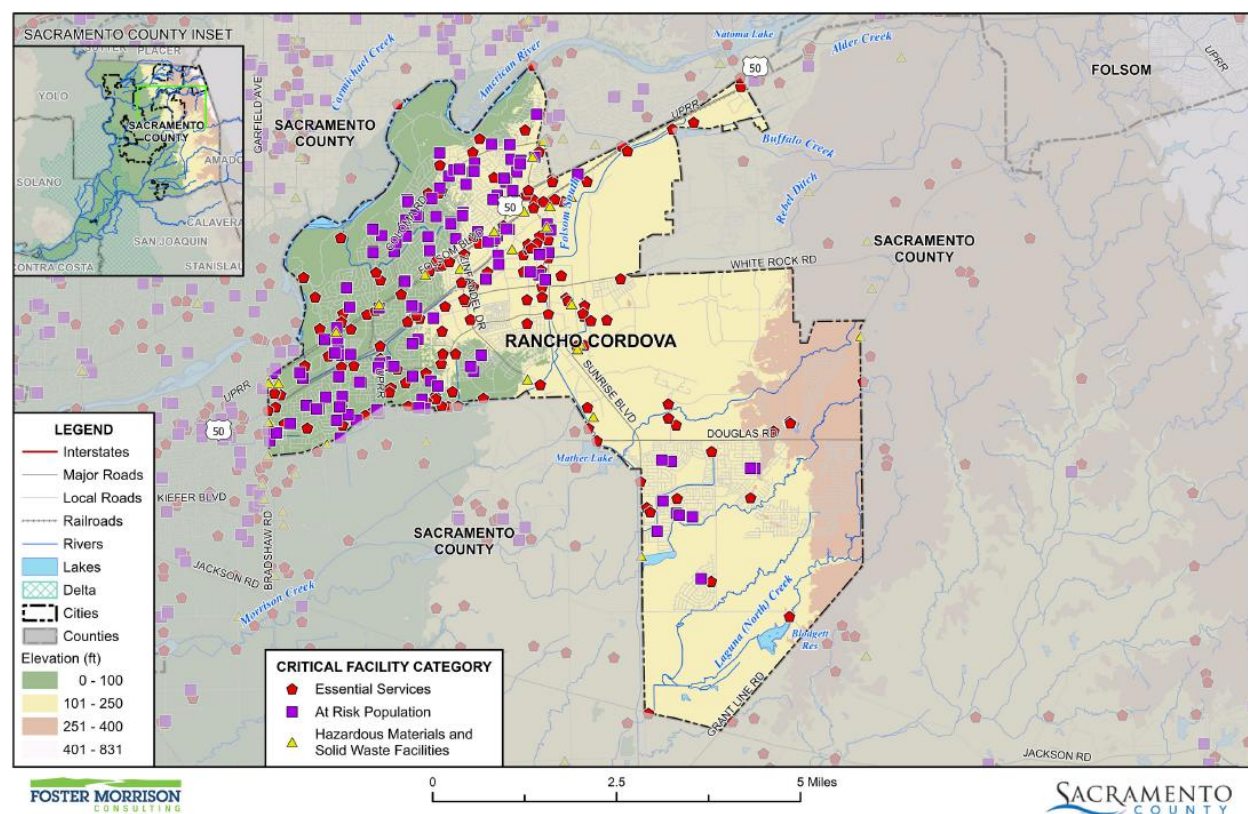
Any facility, including without limitation, a structure, infrastructure, property, equipment or service, that if adversely affected during a hazard event may result in severe consequences to public health and safety or interrupt essential services and operations for the community at any time before, 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 Rancho Cordova from Sacramento County GIS is shown on Figure E-9. Table E-8 gives summary information about the critical facilities in the City. Table E-9 details the facility categories and breaks them down by facility type.

Figure E-9 City of Rancho Cordova – Critical Facilities



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

Table E-8 City of Rancho Cordova – Critical Facilities by Category

Critical Facility Category	Facility Count
Essential Services Facilities	221
At Risk Population Facilities	152

Critical Facility Category	Facility Count
Hazardous Materials and Solid Waste Facilities	20
Rancho Cordova Total	393

Source: Sacramento County GIS

Table E-9 City of Rancho Cordova – Critical Facilities by Category and Type

Critical Facility Category	Critical Facility Type	Facility Count
Essential Services Facilities	Bridge	21
	Cellular Tower	14
	City Facility	5
	Drainage Pump Station	6
	Emergency Evacuation Center	6
	EMS Stations	6
	FDIC Insured Banks	10
	Fire Station	4
	Hospital or Urgent Care	4
	Law Enforcement	4
	Microwave Service Towers	75
	Power Plants	1
	Public Transit Stations	4
	State Government Buildings	1
	Water Well	66
	Total	221
At Risk Population Facilities	Colleges, Universities, and Professional Schools	3
	Community Center	5
	Day Care Center	23
	Mobile Home Parks	8
	Places of Worship	76
	School	34
	Senior Living or Other Living	3
	Total	152
Hazardous Materials and Solid Waste Facilities	EPA ER FRP Facility	1
	EPA ER TRI Facility	3
	Leaky Underground Storage Tank	11
	Solid Waste Facility	2
	Tank Farm	2
	Waste Transfer Station	1
	Total	20
Rancho Cordova Total		393

Community Lifelines

Assessing the vulnerability of the City of Rancho Cordova 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 Rancho Cordova 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.

Soils and Minerals

The majority of the soils in the City are the result of alluvial deposits, or river and lake deposits on various geomorphic surfaces. In terms of soil characteristics, surface runoff, soil erosion, and expansive soils can create potential problems for engineering designs and land use activities. The majority of the area soils are characterized by slight to moderate erosion potential, and very low to medium runoff rates.

Historic mineral production in the region has included construction aggregate, kaolin clay, common clay, pumice, and gold. Construction aggregate consists of sand, gravel, and crushed stone. Existing mineral extraction activities that occur in and around the Rancho Cordova Planning Area consist primarily of fine sand and coarse gravel construction aggregates, as well as clay. Construction aggregates come from two different sources: hardbed rock sources and river channel (alluvial) sources. Generally, sand, gravel, and clay are used as fill and for the construction of highways and roads, streets, urban and suburban development, canals, aqueducts, and pond linings, among other uses.

Habitat Areas and Special Status Species

The City of Rancho Cordova has a variety of natural resources of value to the community. A variety of unique and valuable habitats are found within the City, including, but not limited to, oak and cottonwood woodlands, various grasslands, vernal pool areas, and open water and rivers. Major surface waters in the vicinity of the Rancho Cordova include the American River to the north and other surface waters within the City limits include the Folsom South Canal as well as Laguna and Morrison Creeks. There are approximately 609 acres of vernal pools and approximately 73 acres of freshwater marshes, 37 seasonal marshes and 30,873 acres of valley grassland within the larger Rancho Cordova Planning Area that surrounds and includes the City.

Vernal pools are primary biological natural resource within the City. They are described as seasonal pools that exhibit a four-stage life cycle providing critical habitat to several species of plants and animals, including some species of concern. Many animal species found in the grassland cover type are also found in the vernal pool grassland cover type. Some species found in vernal pool and vernal pool grassland cover types have adapted to specific conditions and are, thus, only found in those cover types. Of those types, some of these species may utilize the vernal pool and vernal pool grassland habitats only during specific stages of vernal pools, and others can be found year-round. Animals that utilize the vernal pool grassland habitat include aquatic crustaceans (branchiopods), amphibians, nesting birds, raptors, and small mammals. The habitats of the City contain numerous special status plant and animal species. A comprehensive list of the habitats and species in the Planning Area is provided in Table E-10. Areas these species reside in are shown in both Figure E-10 and Figure E-11. Biological information was compiled from the City's 2006 General Plan. The City is currently undergoing a General Plan Update through the year 2050 and is in the process of updating this information to reflect current conditions.

Table E-10 Special Status Species Occurring in the Rancho Cordova Planning Area

Scientific Name	Common Name	State Listing Status	Federal Listing Status	Other Status
Plant Species				
<i>Downingia pusilla</i>	Dwarf downingia	None	None	CNPS:2 R-E-D: 1-2-1
<i>Gratiola heterosepala</i>	Boggs Lake hedge-hyssop	Endangered	None	CNPS: 1B R-E-D: 1-2-2 USFWS: SC
<i>Juncus Leiospermus</i>	Ahart's dwarf rush	None	None	CNPS: 1B R-E-D: 3-2-3 USFWS: SC
<i>Legenere limosa</i>	Legenere	None	None	CNPS: 1B R-E-D: 2-3-3 USFWS: SC
<i>Narvarretia myersii</i> ssp. <i>myersi</i>	Pincushion navarretia	None	None	CNPS: 1B R-E-D: 3-3-3 USFWS: SC
<i>Orcuttia tenuis</i>	Slender orcutt grass	Endangered	Threatened	CNPS: 1B R-E-D: 2-3-3
<i>Orcuttia viscida</i>	Sacramento orcutt grass	Endangered	Endangered	CNPS: 1B R-E-D: 3-3-3
<i>Sagittaria sanfordii</i>	Sanford's arrowhead	None	None	CNPS: 1B R-E-D: 2-2-3 USFWS: SC
Amphibian Species				
<i>Spea (Scaphiopus) hammondi</i>	Western spadefoot	None	None	CDFG: CSC USFWS: SC
Bird Species				
<i>Accipiter cooperii</i>	Cooper's hawk	None	None	CDFG: CSC
<i>Agelaius tricolor</i>	Tricolored blackbird	None	None	CDFG: CSC USFWS: SC
<i>Ardea alba</i>	Great egret	None	None	
<i>Ardea herodias</i>	Great blue heron	None	None	
<i>Asio flammeus</i> (nesting)	Short-eared Owl	None	None	CDFG: CSC
<i>Athene Cunicularia</i> (burrow sites)	Burrowing owl	None	None	CDFG: CSC USFWS: SC
<i>Buteo swainsoni</i>	Swainson's hawk	Threatened	None	

Scientific Name	Common Name	State Listing Status	Federal Listing Status	Other Status
<i>Circus cyaneus</i> (nesting)	Northern harrier	None	None	CDFG: CSC
<i>Elanus leucurus</i>	White-tailed kite	None	None	CDFG: fully protected
<i>Eremophila alpestris actia</i>	California horned lark	None	None	CDFG: CSC
<i>Icteria virens</i> (nesting)	Yellow-breasted chat	None	None	CDFG: CSC
<i>Lanius ludovicianus</i> (nesting)	Loggerhead shrike	None	None	CDFG: CSC USFWS: SC
<i>Plegadis chibi</i> (rookery site)	White-faced ibis	None	None	CDFG: CSC USFWS: SC
<i>Riparia riparia</i>	Bank swallow	Threatened	None	
Invertebrate Species				
<i>Branchinecta lynchi</i>	Vernal pool fairy shrimp	None	Threatened	
<i>Branchinecta mesovallensis</i>	Midvalley fairy shrimp	None	None	USFWS: SC
<i>Desmocerus californicus dimorphus</i>	Valley elderberry longhorn beetle	None	Threatened	
<i>Lepidurus packardii</i>	Vernal pool tadpole shrimp	None	Endangered	
<i>Lindieriella occidentalis</i>	California linderiella (fairy shrimp)	None	Endangered	USFWS: SC
Mammal Species				
<i>Antrozous pallidus</i>	Pallid bat	None	None	CDFG: CSC
<i>Bassariscus astutus</i>	Ringtail	None	None	CDFG: CFP
<i>Myotis ciliolabrum</i>	Western smallfooted myotis	None	None	USFWS: SC
<i>Myotis evotis</i>	Long-eared myotis	None	None	USFWS: SC
<i>Myotis thysanodes</i>	Fringed myotis	None	None	USFWS: SC
<i>Myotis volans</i>	Long-legged myotis	None	None	USFWS: SC
<i>Myotis yumaensis</i>	Yuma myotis	None	None	USFWS: SC
<i>Taxidea taxus</i>	American badger	None	None	CDFG: CSC
Reptile Species				
<i>Emys</i> (= <i>Clemmys</i>) <i>marmorata marmorata</i>	North-western pond turtle	None	None	CDFG: CSC USFWS: SC

Source: City of Rancho Cordova General Plan Natural Resources Element (2016)

Key to Ranks and Lists

CDFG: CSC California Species of Special Concern

CDFG: CFP California Fully Protected

USFWS: SC USFWS Species of Concern

CNPS Lists:

List 1A: Plants Presumed Extinct in California

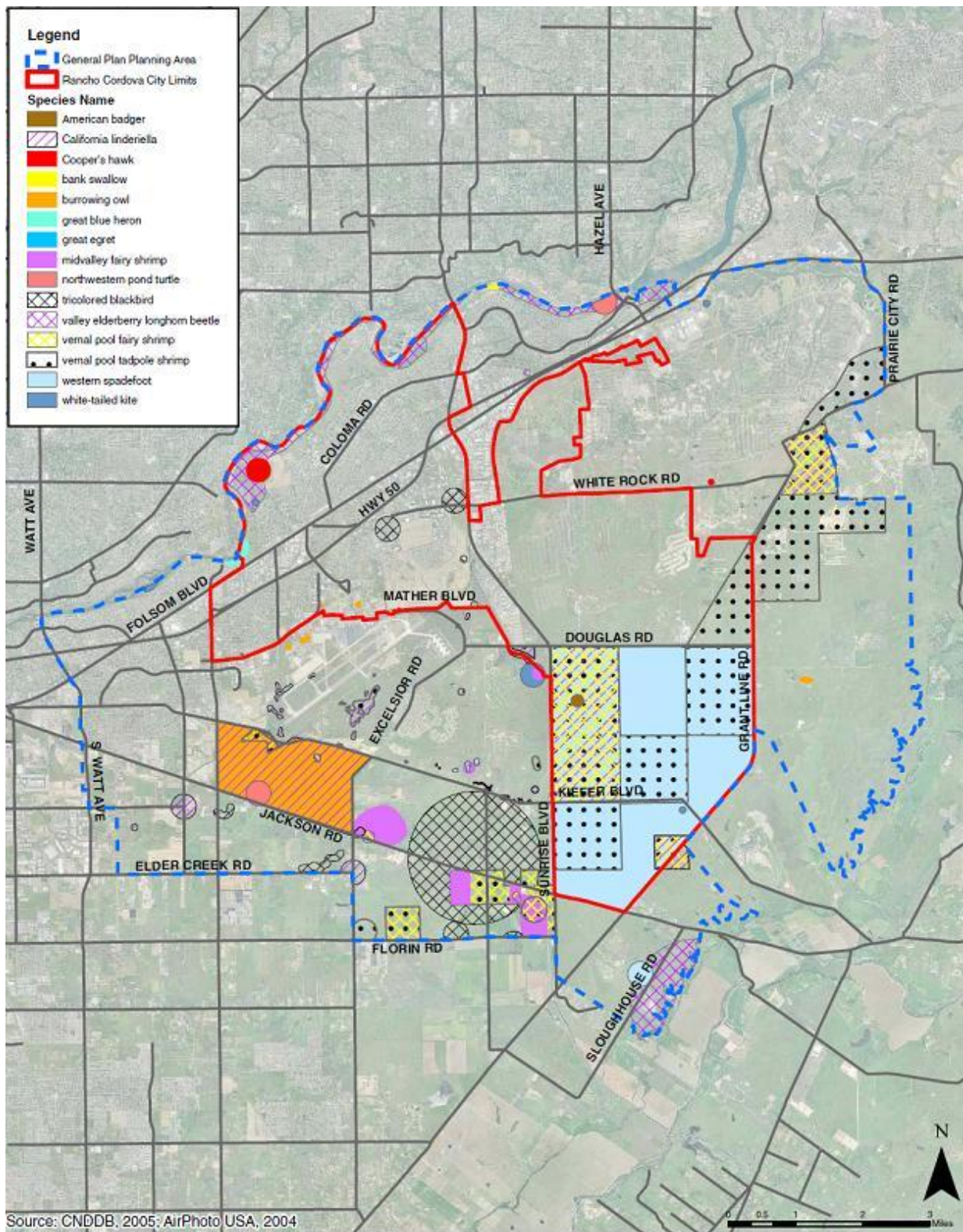
List 1B: Plants Rare, Threatened or Endangered in California or Elsewhere

List 2: Plants Rare, Threatened or Endangered in California, But More Common Elsewhere

List 3: Plants About Which We Need More Information – A Review List

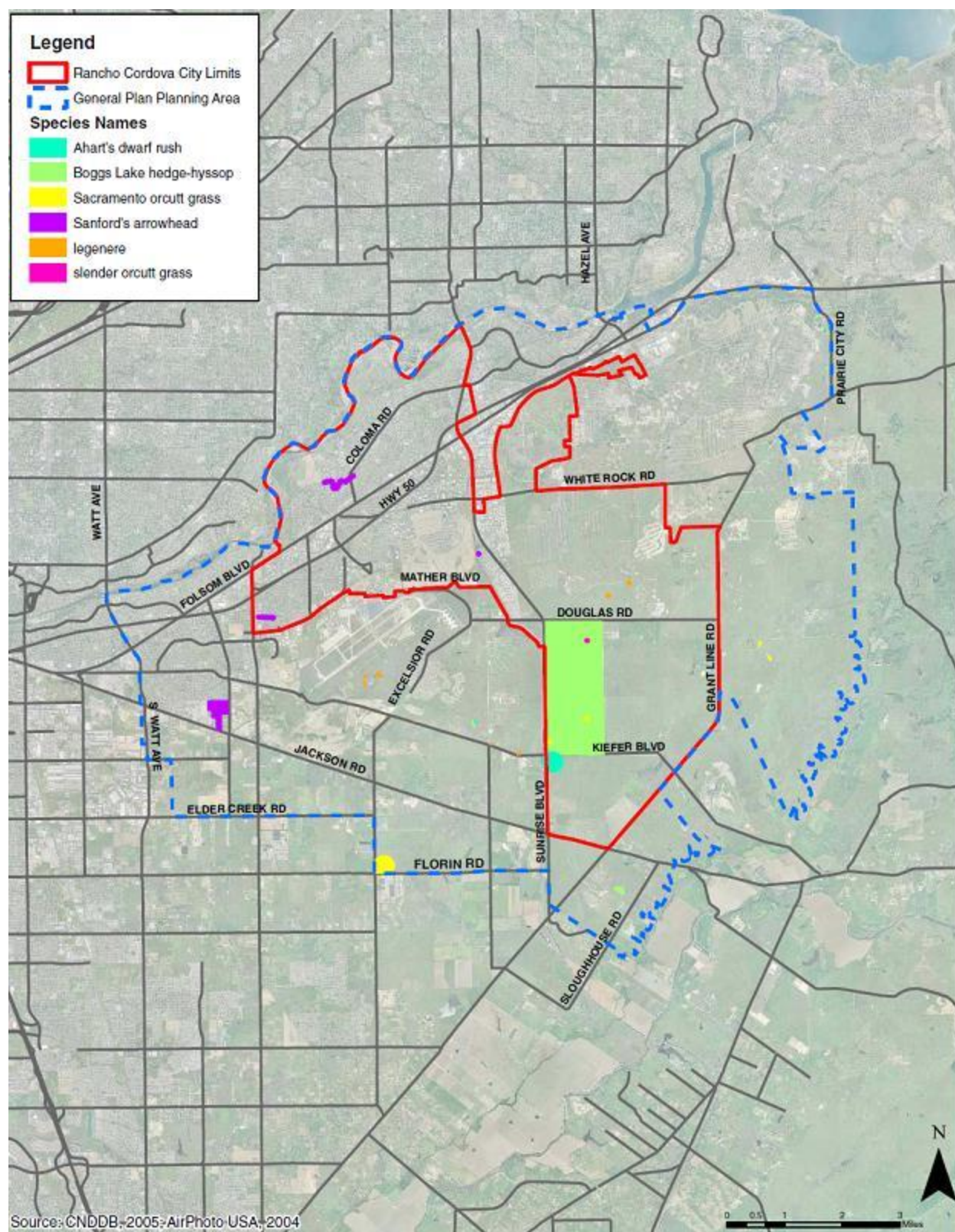
List 4: Plants of Limited Distribution – A Watch List

Figure E-10 Location of Special Status Animal Species in Rancho Cordova



City of Rancho Cordova General Plan Natural Resources Element (2006)

Figure E-11 Location of Special Status Plant Species in Rancho Cordova



City of Rancho Cordova General Plan Natural Resources Element (2006)

South Sacramento Habitat Conservation Plan

The City of Rancho Cordova assisted in local efforts to adopt the South Sacramento Habitat Conservation Plan (SSHCP or Plan). The SSHCP encompasses a 317,000 acre area in south Sacramento County and streamlines federal and state permitting for development and infrastructure projects while conserving habitat. An interconnected regional preserve system of over 36,000 acres - roughly 1.2 times the total size of San Francisco - will be created over the next 50 years to protect twenty-eight plant and wildlife species and their natural habitats. The Plan is the first in the nation to include Clean Water Act (CWA) permits issued by the Army Corps of Engineers (USACE) and Endangered Species Act (ESA) permits issued by the U.S. Fish and Wildlife Service (USFWS). Instead of permitting through several separate state and federal agencies, most actions in the Plan area can be permitted through the City of Rancho Cordova Planning Department.

The Plan Area is located in the southern portion of Sacramento County. It is divided into two components: inside and outside the Urban Development Area (UDA). All proposed urbanization and some preserves will occur inside the UDA. Most preservation will occur outside of the UDA and help protect agricultural lands as well as habitat.

SSHCP Covered Activities may be carried out by the Permittee Agencies or by Third Party Project Proponents. The Conservation Strategy and process for Covered Activity project authorization is described in the SSHCP and associated permits. In all cases language in the permit(s) prevail when different than the SSHCP. The Plan will be made consistent with the permit conditions and language.

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 depression 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.

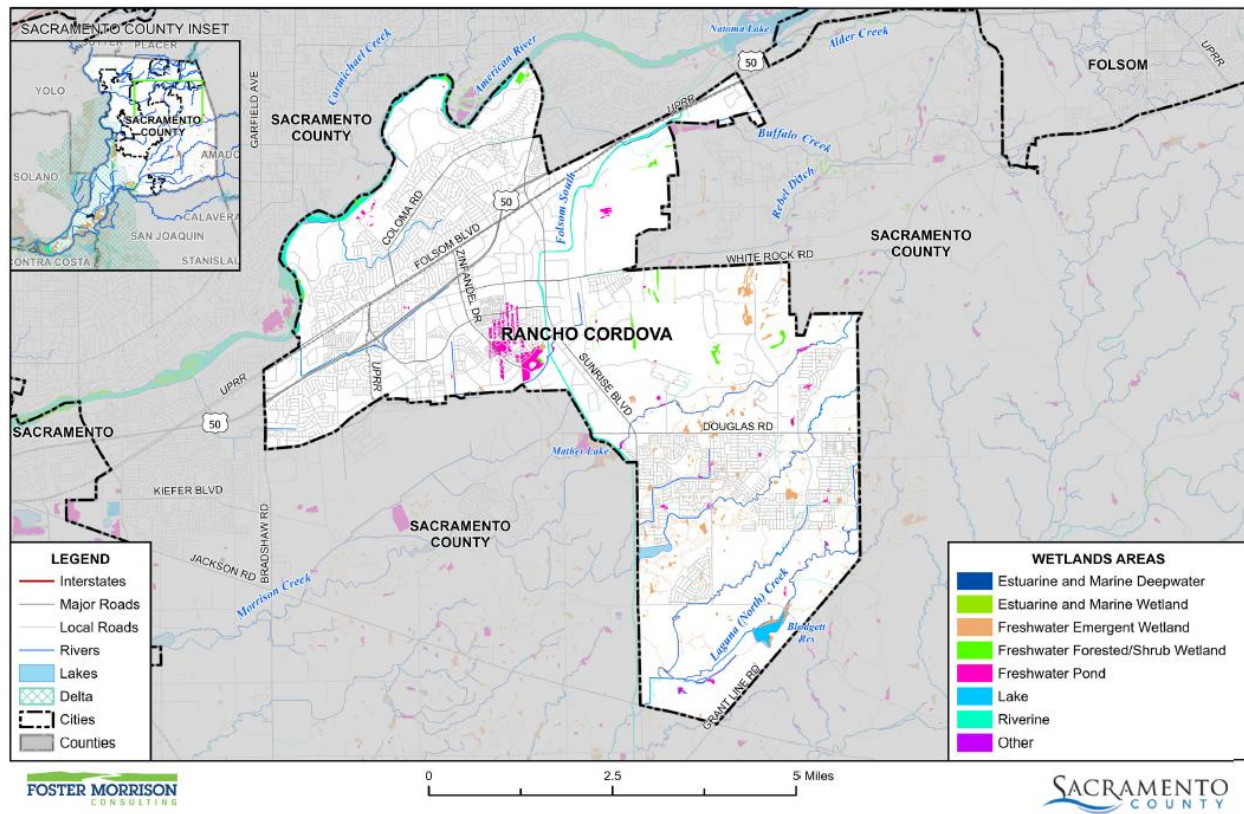
Wetlands, and other riparian and sensitive areas, provide habitat for insects and other invertebrates that are critical food sources to a variety of wildlife species, particularly birds. There are species that depend on these areas during all parts of their lifecycle for food, overwintering, and reproductive 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 E-12 and detailed in Table E-11. **Note:** Some of the wetland areas shown in the US Fish and Wildlife Service National Wetlands Inventory were photo interpreted based on imagery as early as 1984 and do not represent existing wetland area changes due to development in the early 2000s forward.

Figure E-12 City of Rancho Cordova – Wetlands Areas



Data Source: U.S. Fish and Wildlife Service National Wetlands Inventory 10/2024 (downloaded 01/2025), Sacramento County, Cal-Atlas; Map Date: 1/30/2026.

Table E-11 City of Rancho Cordova – 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	1,784	288	0.7%	33%
Freshwater Forested/Shrub Wetland	61	62	0.1%	7%
Freshwater Pond	937	174	0.4%	20%
Lake	1	40	0.1%	5%
Riverine	464	298	0.7%	35%
Rancho Cordova Total	3,247	862	2.0%	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 Rancho Cordova 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 E-12 shows 2 historic buildings in the City from the OHP Database.

Table E-12 City of Rancho Cordova – Historic Resources

Name (Landmark Plaque Number)	National Register	State Landmark	California Register	Point of Interest	Date Listed	City/Area
American River Grange Hall #172 (P823)	X			X	5/15/1996	Rancho Cordova
Fifteen Mile House-Overland Pony Express Route in California (698)		X			9/11/1959	Rancho Cordova

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

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. Two additional sites within the City, the Sacramento Valley Railroad Alignment and Routier Station (Pfingst Realty Co. Building) have been found eligible for listing, but are not presently listed in the NRHC. 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 Rancho Cordova 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

The City of Rancho Cordova's economy is supported by a diverse and robust base of over 3,500 businesses and 73,000 jobs, along with key industry clusters (e.g., manufacturing and technology) and commercial corridors (e.g., Folsom Boulevard and Sunrise Boulevard) that serve as major economic drivers. The City has a substantial physical employment and commercial base, including approximately 14 million square feet of industrial space, 6.5 million square feet of office space within the Rancho Cordova Office Park, and 5.7 million square feet of retail space within the Highway 50 Corridor retail submarket. A presentation of major employers and their number of employees is shown in Table E-13.

The City also benefits from direct access to the American River Parkway, a major regional destination for recreation and tourism. Furthermore, Rancho Cordova offers a wide range of recreational and entertainment amenities that contribute to economic activity and quality of life, including mixed martial arts studios, an indoor pickleball facility, indoor and outdoor sports training facilities, gymnastics and cheerleading studios, and children’s amusement centers.

Table E-13 City of Rancho Cordova – Major Employers

Number of Employees	Major Employers	
300 or more	Folsom Cordova Unified School District	Managed Care Systems
	Folsom Lake College	Pacific Coast Building Products Inc
	Franklin Templeton	Parkwest Casino Cordova
	Health Net	Philips Image Guided Therapy Corporation
	Kaiser Foundation	Solidigm
	King Extensions Fashion	VSP Vision Care
	Liberty Reverse Mortgage	Walmart Supercenter
100-299	ADM Associate Inc	KP International Market
	Advance Kids	Ljrh Inc
	Air Systems Of Sacramento Inc	Lowe's Home Improvement
	Blue Shield Of California	MDstaffers
	California Department of Technology	Moss Adams
	Caltronics Business Systems	Motion Control Engineering Inc
	Casa Coloma Health Care Center	Nec Corp Of America
	Clutch	North State Electric Contractor Inc
	Costco	Rayco Electric Inc
	Dignity Health	Redtail Technology Inc
	Educational Credit Management Corporation	Sacramento County Parks Department
	Falco Automation, LLC	Sacramento Marriott Rancho Cordova
	Folsom Ready Mix Inc	Sierra Office Supplies & Printing
	Geocon Consultants-inc	Spencer Building Maintenance
	Home Depot	Teledyne Microwave Solutions
	V3 Electric	Tri Tool Inc
	Vantedge Medical	Urata & Sons Cement Inc
	VCA Sacramento Veterinary Referral Center	
50-99	3d Technology Services	Inszone Insurance Services
	A. M. Winn Public Waldorf	Keenan & Associates

Number of Employees	Major Employers	
	A-1 Advantage Asphalt Inc	Kennedy Jenks Consultants
	Acclamation Insurance Management Service	Kids Care Dental
	Alessandro Electric Inc	Language World Service Inc
	Altair Eyewear	Life Steps
	AMG Auto Sales	Lyle Co
	Anthem	Mailing Systems Inc
	B & J Body Shop	Masters Touch Piano Service
	B & Z Properties	Maximus Inc
	Bank Of Marin	Military Aircraft Parts
	Beck's Furniture	National Security
	Bergelectric	NorCal Solar Panel Cleaning
	Bissell Bros Inc	Northwest Exteriors
	Brookfields Restaurant	Pacful Inc
	California Society Of Enrolled Agents Inc	Pacific Silk Scapes
	Capital Engineering Consultants Inc	Pick-n-pull
	Centene Management Company LLC	Project Management Inc
	Child Action Inc	Prosource Of Sacramento
	Cordova Recreation And Park District	Quincy Engineering
	Crusader Fence	River City Christian Church
	Davis Reed Construction Inc	River City Millwork Inc
	Dr Viktoria Biletsky MD	Ross Dress For Less
	Duckworth Electric	Rudy's Hideaway Lobster house Bar & Catering
	Eco Drive Usa	Springboard Manufacturing
	EJ Masonry	Stewart Tool Company
	Enterprise Networking Solutions, Inc.	Supply Doc Inc
	Euro Star Auto Sales	Thermogenesis Holdings Inc
	Euroluxe	Travelers
	Exotic Garage	Uc Davis Medical Group
	Folsom Cordova Community Partnership	Union Mine Iron
	George Hills Company Inc	University Of Assisted Living LLC
	Hydroscience Engineers	

Source: City of Rancho Cordova

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 E.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

Community assets play a significant role in Rancho Cordova’s economy. The Cordova Community Council hosts over 250 events annually, drawing visitors from across the Sacramento region to events such as Kids Day, the International Festival, a two-day Fourth of July celebration and parade, and the Heartstoppers Haunted House. The Rancho Cordova Community Food Hub supports more than 4,000 individuals each month, including adults, infants, children, and seniors, through its food distribution program. The City’s Community Engagement Division plays an important role by bringing neighbors together, growing community leaders, connecting residents and businesses with volunteer opportunities, and administering the city’s community micro grant program. Hazards such as severe weather are likely to affect many outdoor grant-funded community activities. Over the last 5 years, the City has approved micro-grants for over 44 small community events and over 95 501C3 events in an effort to support the local community.

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 E.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

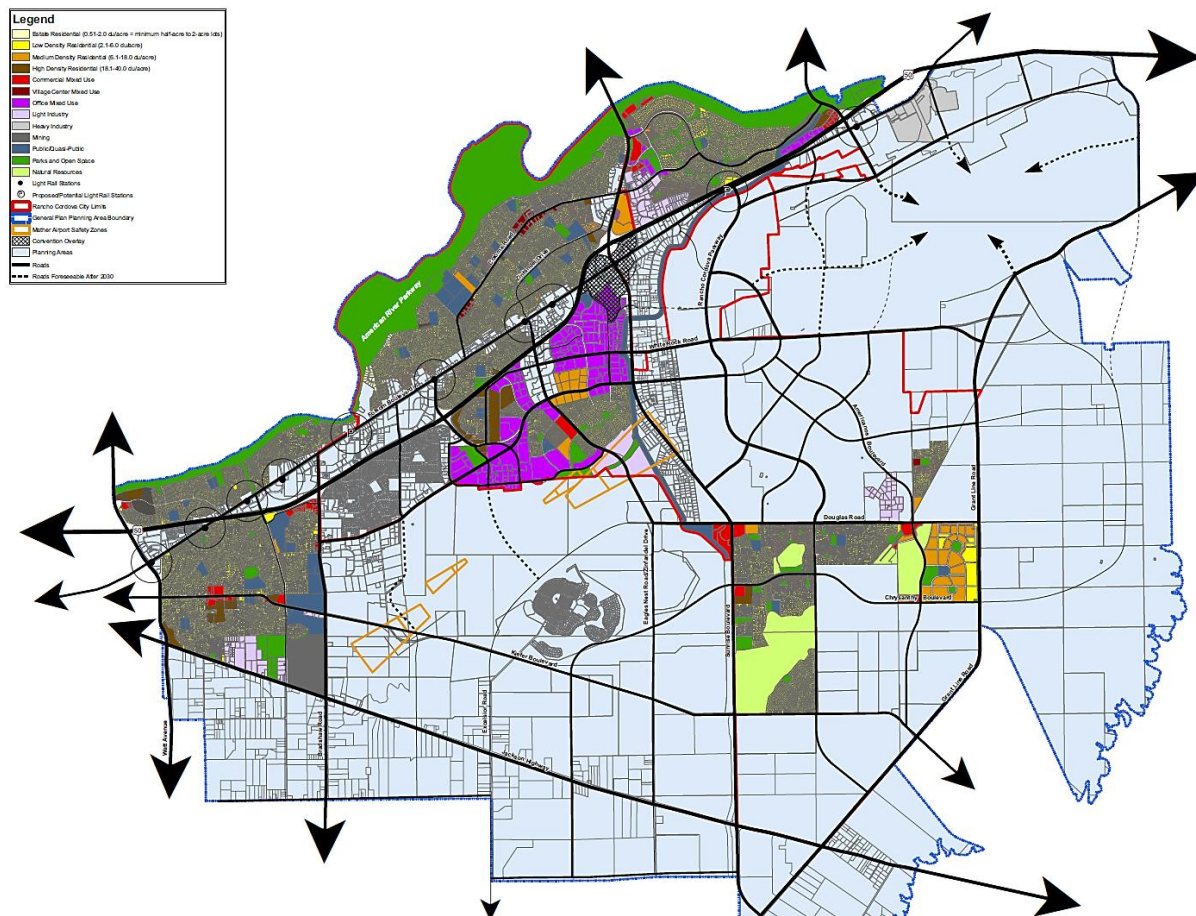
State planning law requires that a land use element of a general plan includes a statement of the standard population density, building intensity, and allowed uses for the various land use designations in the plan (Government Code Section 65302(a)). The City’s land use designations are generally described below and

mapped on the Land Use Diagram (Figure E-13). The City of Rancho Cordova 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 Rancho Cordova. 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 Rancho Cordova residents.

Future land use for the City of Rancho Cordova from the 2006 City of Rancho Cordova General Plan Land Use Element (and last amended on January 1, 2015) is shown on Figure E-13. This goes hand in hand with the City of Rancho Cordova Zoning Map, which is shown on Figure E-14.

Figure E-13 City of Rancho Cordova – Land Use Diagram



Source: City of Rancho Cordova. Retrieved 7/16/2026.

Rancho Cordova
Zoning and Future Land Use

LEGEND

SPECIAL PLAN AREAS

SPECIFIC PLAN AREAS

AS-60 (Agricultural 60)
RD 3
AS-20 (Agricultural 20)
RD-4 (Residential 4)
RD-10 (Residential 10)
LD (Residential 10)
LD (ZSPA) (Single-Family Residential Conversion)
RD-15 (Residential 15)
RD-20 (Residential 20)
RD-25 (Residential 25)
RD-30 (Residential 30)
RD-35 (Residential 35)
RD-40 (Residential 40)
RD-45 (Residential 45)
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RD-60 (Residential 60)
RD-65 (Residential 65)
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RD-127

Population Trends and Projections

Two new specific plans, Westborough and Legado, are currently in the entitlement and environmental phase and are likely to be approved within the next five years. At full build-out, the Westborough Specific Plan would add approximately 7,130 units (including 2,516 detached single family units) in the northwestern portion of the City and the Legado Specific Plan would add approximately 5,245 new units (including 1,072 detached single family units) to the southwestern portion of the City. Exact timing of construction is uncertain and dependent on market conditions.

According to the General Plan Update 2050, average growth rates are 439 residential units/year and 1,512 people per year. The City currently has several approved specific plans and special plan areas (Rio del Oro, Sunridge, Suncreek, and The Ranch) that have capacity to add about 20,000 new housing units within Rancho Cordova City Limits.

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 Building 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 E-14 and Table E-15.

Table E-14 City of Rancho Cordova – Total Development Since 2021

Permit Type	2021	2022	2023	2024	2025
Commercial / Industrial / new / repair / TI	106	226	298	232	209
Commercial / industrial Miscellaneous	80	91	78	27	49
Exterior signage	27	35	84	31	112
Demolition (commercial/industrial)	14	20	32	7	4
New homes	489	606	616	982	1003
Plumbing Mech Elec (Com , Industrial, Res)	977	1009	1863	969	1203
Pools (Com, Industrial, Res)	62	61	98	87	100
Residential (remodels, repairs , additions)	126	242	253	223	249
Residentials Misc.	306	139	213	46	60
Re-Roofing (Com / Industrial / Res.)	336	327	529	413	400
Total	2,523	2,756	4,064	3,017	3,389

Source: City of Rancho Cordova Building Department

Table E-15 City of Rancho Cordova – Development in Hazard Areas since 2021

Property Use	1% Annual Chance Flood	Levee Protected Area	Wildfire Risk Area ¹	Other
Residential	6	47	3,139	0
Commercial	2	6	22	0
Industrial	0	0	55	0
Total	0	0	9	0

Source: City of Rancho Cordova Building & GIS Departments

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.

Notable large-scale commercial developments:

- Logistics Center/Trader Joes Cold Storage - 12190 Atlanta Cir - 275,807 SF (Finalized Sept 25, 2025)
- Amazon Warehouse/Project Sunrise - 3300 Rancho Cordova Pkwy – 653,339 square feet warehouse/distribution (Finalized Jan 30, 2026)
- RC Arena – Kilgore and Sunrise - 190,000 square feet arena (phase 1). Phase 2 will include up to 220,000 square feet of commercial, 1,000 multi-family units, and 800 hotel rooms.

New City facilities:

In the last 5 years, the City Council has explored construction of new mixed-use facilities to be funded through recent half-cent sales tax measures (2014 - H and 2020 - R) that contribute to the “Legacy Projects” in the Community Enhancement & Investment Fund. In 2025-2026, the City Council shifted priorities towards implementing tenant improvements in existing office parks as a new avenue for developing community facilities.

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 Rancho Cordova provided 12 future development areas which were used as the basis for the inventory of future development for the City. These were mapped in GIS. Figure E-15 show the locations of the future development areas reflecting approved entitlements that are expected to be constructed within the next five years. Table E-16 shows the details of the future development areas organized by future development type (property use) and status, and by parcel counts and acreage.

Figure E-15 City of Rancho Cordova – Future Development Areas

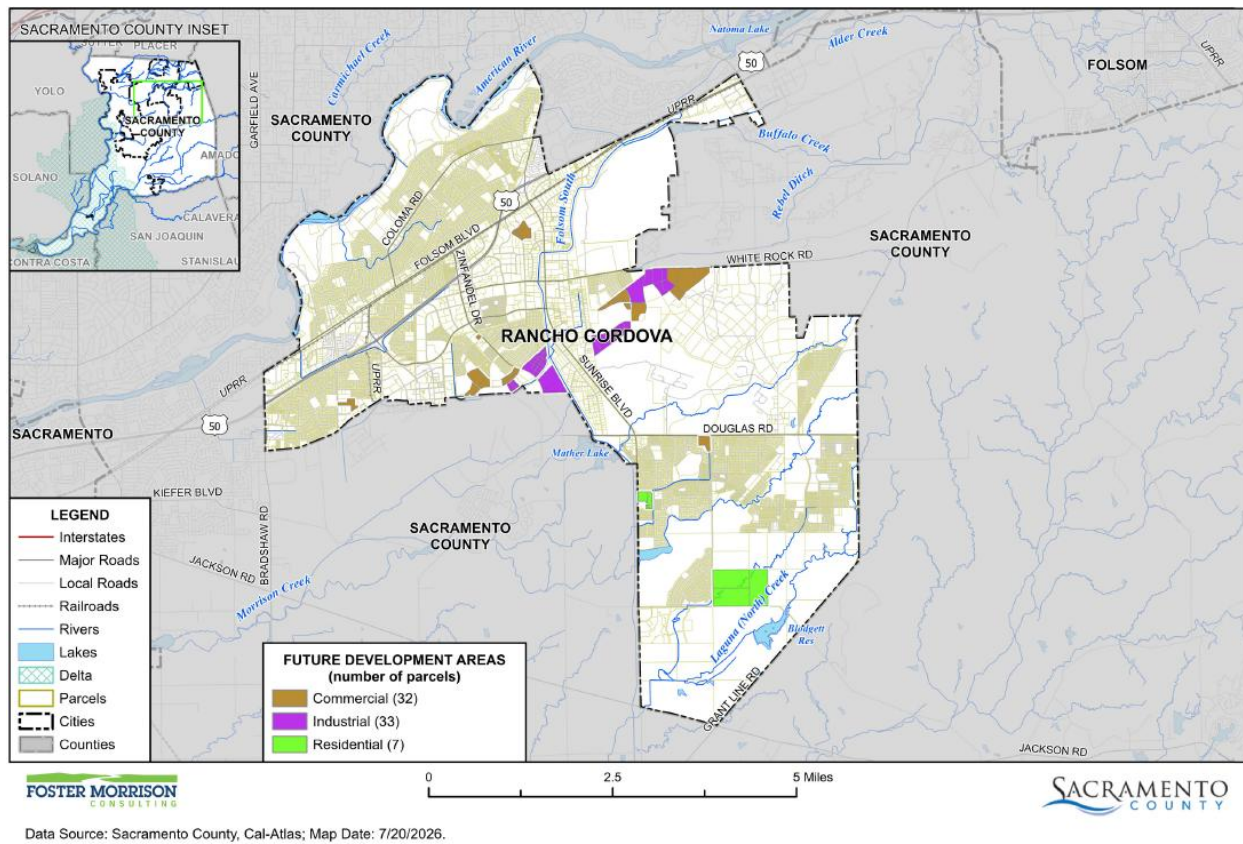


Table E-16 City of Rancho Cordova – Future Development Areas by Type and Status with Parcels and Acres

Future Development Type and Status	Site/Location Name	Total Parcel Count	Improved Parcel Count	Unimproved Parcel Count	Total Acres	Total Improved Acres	Total Unimproved Acres
Residential							
Construction	Asteria Flats Apartments	1	0	1	11.1	0.0	11.1
	Steelridge	1	0	1	78.0	0.0	78.0
	Construction Total	2	0	2	89.1	0.0	89.1
Proposed	Apartments	3	0	3	9.4	0.0	9.4
	Steelridge	2	0	2	158.8	0.0	158.8
	Proposed Total	5	0	5	168.2	0.0	168.2
Residential Total		7	0	7	257.3	0.0	257.3

Future Development Type and Status	Site/Location Name	Total Parcel Count	Improved Parcel Count	Unimproved Parcel Count	Total Acres	Total Improved Acres	Total Unimproved Acres
Commercial							
Proposed	12093 Cobble Brook Dr	1	0	1	14.6	0.0	14.6
	Arena Project	5	0	5	25.5	0.0	25.5
	Quick Quack	1	0	1	1.8	0.0	1.8
	Rio Del Oro Specific Plan Area	11	0	11	145.7	0.0	145.7
	Routier Rd	4	0	4	11.8	0.0	11.8
	Zinfandel Special Planning Area	10	0	10	56.4	0.0	56.4
	Proposed Total	32	0	32	255.8	0.0	255.8
Commercial Total		32	0	32	255.8	0.0	255.8
Industrial							
Proposed	Rio Del Oro Specific Plan Area	13	0	13	163.2	0.0	163.2
	Zinfandel Special Planning Area	20	0	20	105.5	0.0	105.5
	Proposed Total	33	0	33	268.7	0.0	268.7
Industrial Total		33	0	33	268.7	0.0	268.7
Grand Total		72	0	72	781.9	0.0	781.9

Source: City of Rancho Cordova

E.4.2. Hazard Identification

The City of Rancho Cordova 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 E-17). Those hazards identified as a high or medium significance in Table E-17 are considered City of Rancho Cordova 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 E-17 City of Rancho Cordova—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	Likely	Limited	Medium	–
Dam Failure	Significant	Unlikely	Critical	High	Medium
Drought & Water Shortage (w/tree mortality)	Limited	Likely	Critical	High	High
Earthquake (w/subhazards)	Extensive	Unlikely	Negligible	Low	Low
Flood: 1%/0.5%/0.2% annual chance	Significant	Occasional	Critical	Medium	Medium
Flood: Localized Stormwater	Significant	Likely	Limited	Medium	Medium
Landslides, Mudslides, and Debris Flow	Limited	Unlikely	Negligible	Low	Medium
Levee Failure	Limited	Unlikely	Negligible	Low	Medium
Sea Level Rise	Limited	Unlikely	Negligible	Low	High
Severe Weather: Extreme Cold and Freeze	Significant	Likely	Negligible	Low	Medium
Severe Weather: Extreme Heat	Significant	Highly Likely	Limited	High	High
Severe Weather: Heavy Rains and Storms (Hail, Lightning, Wind)	Significant	Highly Likely	Limited	High	Medium
Severe Weather: High Winds and Tornadoes	Significant	Likely	Limited	Medium	Low
Subsidence	Limited	Occasional	Limited	Low	Medium
Wildfire (with smoke and air quality)	Significant	Highly Likely	Critical	High	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					

E.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 Rancho Cordova (as identified in the Significance column of Table E-17) 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 E.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 E.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.

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. PG&E noted no PSPS events since the 2021 LHMP.

Local Concerns

There have been past unintentional power outages, often due to natural hazards. There have been no intentional (including PSPS events) power outage issues associated with hazard events affecting the District since 2021. However, with an increase in climate change related issues (e.g., extreme heat conditions, atmospheric river storms) occurring in the City or larger Sacramento County Planning Area, the potential for future hazard related power outages remain a concern.

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 E.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 Rancho Cordova, 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 thought 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 Rancho Cordova 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.

Of the four climate hazards assessed for the City, the City, inclusive of its populations and assets, is most vulnerable to the potential impacts of increased temperatures and extreme heat. However, the City is still vulnerable to the other three climate hazards that were assessed – extreme precipitation and flooding, drought, and wildfires – though to a lesser degree. These are all discussed in greater detail in the Local Concerns sections of each of these hazards.

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 E.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, 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. While the City is expected to see slow and steady growth, the City could see population fluctuations as a result of climate impacts relative to those experienced in other regions, and these fluctuations are expected to impact demand for housing and other development. The City has 12 locations where development is expected over the next five years. Changes in population and population patterns that would come with the 12 future development areas would likely increase the impacts and vulnerability of the City associated with this hazard.
- Land use planning should be proactive to address future hazard conditions. The City has 12 locations where development is expected over the next five years. 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– Extremely High

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. In addition, with storms increasing in volume and intensity, as seen with the atmospheric river events of recent years, controlled releases from dams can also impact downstream levees and flood control structures resulting in increased and widespread flooding.

Dam failures, for purposes of this Plan, can also result from any one or a combination of the following:

- Earthquake
- Overtopping and uncontrolled releases
- Controlled releases
- 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 Rancho Cordova are shown on Figure E-16 for Extremely High Hazard dams

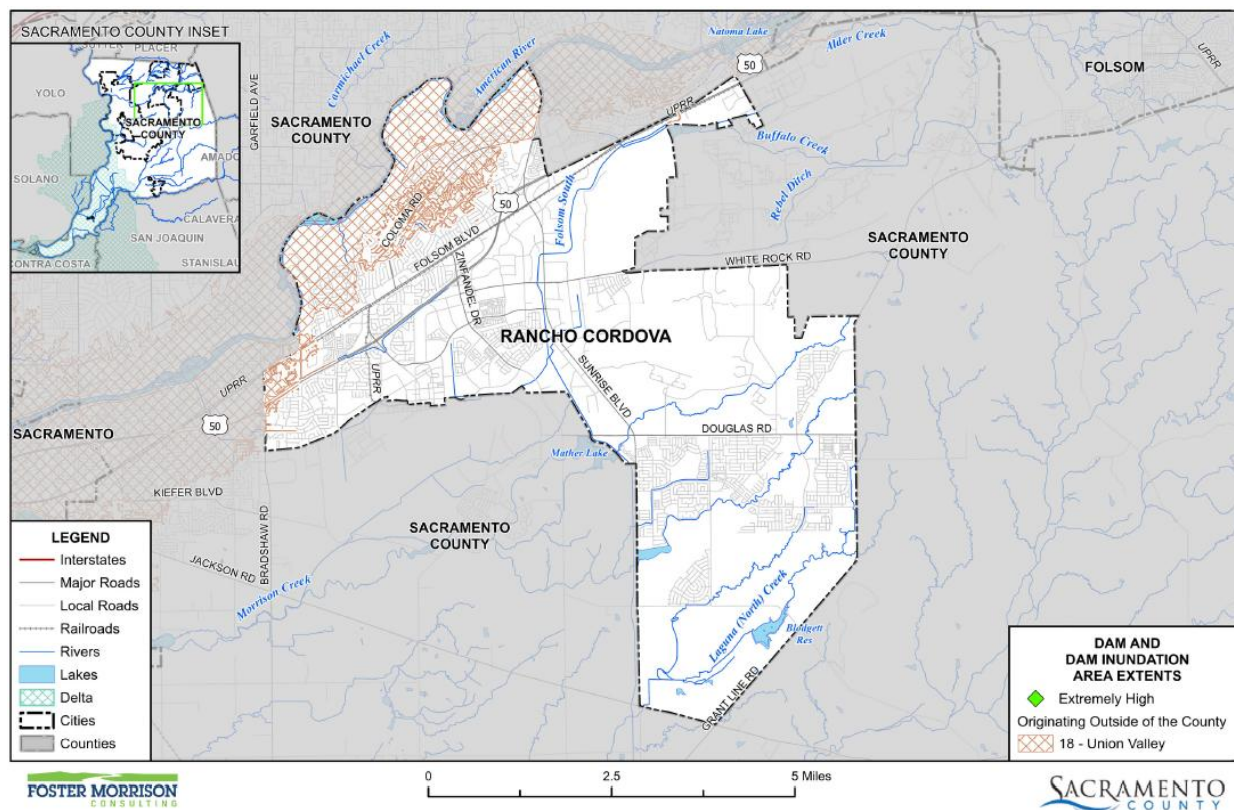
originating from outside the County, Figure E-17 for High Hazard dams originating from inside the County. There is no mapping for High Hazard dams originating from outside the County as these dams do not affect Rancho Cordova. The City is affected by one Extremely High Hazard dams (Union Valley), and one High Hazard dam from within the County (Nimbus). In addition, based on the Folsom dam inundation analyses included in the 2021 and 2016 Sacramento County LHMPs, areas of the City fall within previous dam inundation areas for Folsom. It is thus assumed that, while not quantified, the City remains at risk and vulnerable to a future Folsom dam incident.[]

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.

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. Geographic flood extent from the DSOD dam inundation areas within the City of Rancho Cordova are shown in Table E-18 for Extremely High Hazard dams originating from outside the County and Table E-19 for High Hazard dams originating from inside the County. There is no extent tables presented for High Hazard dams originating from outside the County as they don't affect the City.

Figure E-16 City of Rancho Cordova – Extremely High Hazard Dam (Outside the County) Inundation Areas



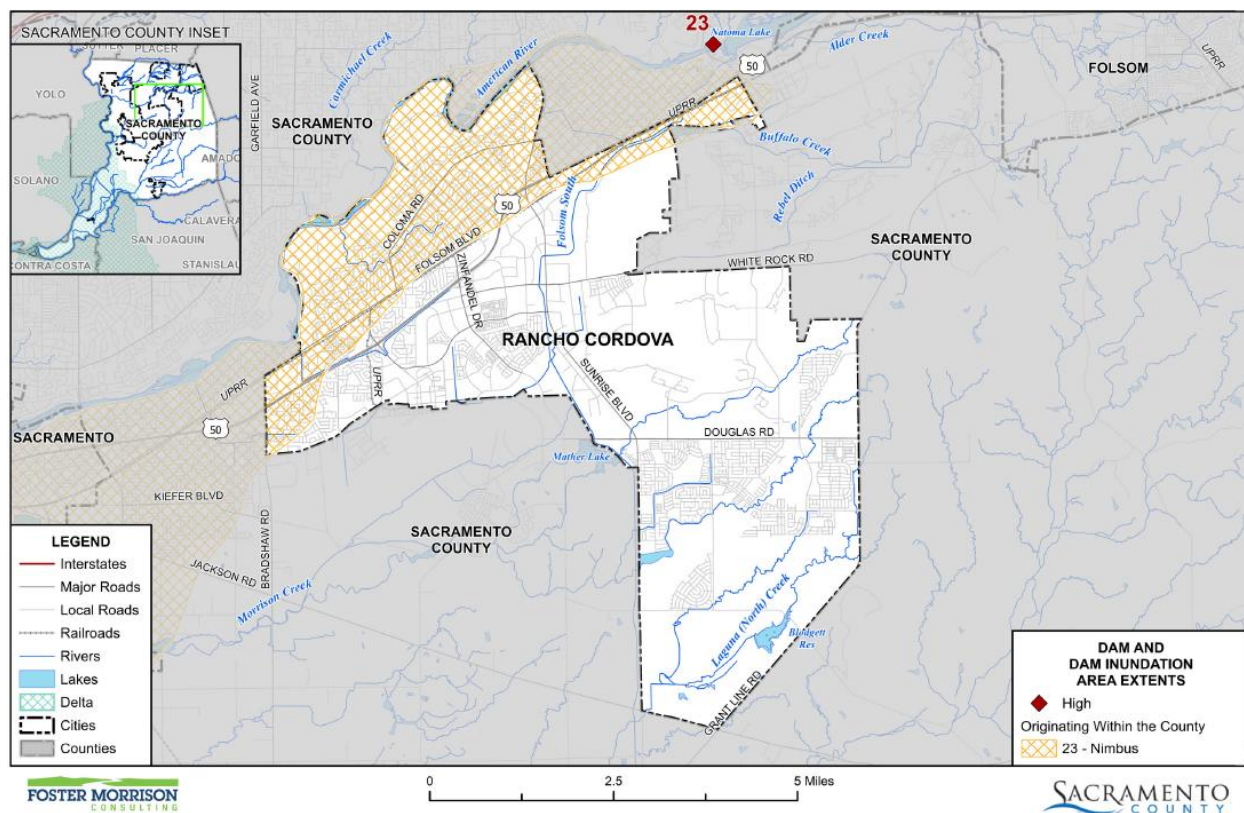
Data Source: DWR DSOD dam inundations (updated 7/2025; data downloaded 10/2025),
NID dam inventory and inundation data (updated 11/6/2025; data downloaded 11/6/2025),
Sacramento County, Cal-Atlas; Map Date: 4/2/2026.

Table E-18 City of Rancho Cordova – Geographical Extents of Extremely High Hazard Dam (Outside the County) Inundation Areas

Jurisdiction / Dam Inundation Area	Total Acres	% of Total Acres	Improved Acres	% of Total Improved Acres	Unimproved Acres	% of Total Unimproved Acres
Union Valley	2,359	12%	777	10%	1,582	13%

Source: DWR DSOD

Figure E-17 City of Rancho Cordova – 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 E-19 City of Rancho Cordova – Geographical Extents of High Hazard Dam (Inside the County) Inundation Areas

Jurisdiction / Dam Inundation Area	Total Acres	% of Total Acres	Improved Acres	% of Total Improved Acres	Unimproved Acres	% of Total Unimproved Acres
Nimbus	4,674	23%	2,451	32%	2,223	18%

Source: DWR DSOD

Past Occurrences

Disaster Declaration History

There have been no state or federal disaster declarations for dam failure in Sacramento County.

NCDC Events

The NCDC does not contain any dam failure events for Sacramento County.

City of Rancho Cordova Events

The City Planning Team noted no past occurrences of dam failure to affect the City.

Climate Change and Dam Failure

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

The 2023 California State Hazard Mitigation Plan noted that modeling described in California’s Fourth Climate Change Assessment projects less frequent but more extreme daily precipitation. Year-to-year precipitation will become more volatile, and the number of dry years will increase by mid-century. As the climate continues to warm, atmospheric rivers will carry more moisture, and extreme precipitation may increase. Climate model projections show a tendency for the northern part of the State to become wetter. Increases in both precipitation and heat causing snow melt in areas upstream of dams could increase the potential for dam failure and uncontrolled releases in Sacramento County. The City could be affected by these changes, especially in those areas of the City located within dam inundation areas.

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 dam failure events.

Vulnerability to Dam Failure

The vulnerability of the City to dam failure flooding would vary depending on which dam fails and the nature and extent of the dam failure and associated flooding. The primary danger associated with dam failure is the high velocity flooding of those properties downstream of the dam. A dam failure can range from a small, uncontrolled release to a catastrophic failure. Vulnerability to dam failures is generally confined to the areas subject to inundation downstream of the facility. Secondary losses would include loss

of the multi-use functions of the facility and associated revenues that accompany those functions. Dam failure flooding would vary by community depending on which dam fails and the nature and extent of the dam failure and associated flooding.

An assessment of a community's vulnerability to dam failure begins with an understanding of local exposure to dam failure. 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.

General Concerns

Warning ability is generally determined by the frequency of inspections for structural integrity, the flood wave arrival time (the time it takes for the flood wave to reach its maximum distance of inundation), or the ability to notify persons downstream and their ability to evacuate. The existence and frequency of updating and exercising an evacuation plan that is site-specific assists in warning and evacuation functions. A failure of the Folsom Dam would leave little time for evacuation of certain parts of City of Rancho Cordova.

Impacts to the City from a dam failure flood include loss of life and injury, flooding and damage to property and structures, damage to critical facilities and infrastructure, loss of natural resources, and all other flood related impacts. Additionally, mass evacuations and associated economic losses can also be significant.

Assets at Risk

Assets at risk from dam failure 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 dam inundation areas are vulnerable to dam failure. Certain vulnerable populations may be at increased risk to dam failure, especially during a large event with minimal advance notice. These vulnerable populations may include: the unsheltered, those with limited mobility, and those that lack the resources to leave the area.

City residents that live in these dam inundation areas 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 Rancho Cordova's residential populations located in these hazard areas, a separate analysis was performed to determine residential populations in the dam inundation areas. The DSOD dam inundation areas were overlayed on the parcel layer. Those residential parcel that intersect the dam inundation areas were counted and multiplied by the Census Bureau average household factors for the City of Rancho Cordova – 2.81. This is shown in Table

E-20. While not currently mapped, this includes those populations impacted by a future Folsom dam incident.

Table E-20 City of Rancho Cordova – Improved Residential Parcels and Population by Dam Inundation Area

Dam Name	Improved Residential Parcels	Population at Risk
Extremely High Hazard (Outside the County) Dam Inundation		
Union Valley	5,400	15,552
High Hazard Dam (Inside County) Inundation		
Nimbus	9,018	25,972

Source: CalOES/DSOD, Sacramento County 2025 Parcel/Assessor Data, 2023 US Census Bureau American Community Survey Average Household Size –City of Rancho Cordova (2.81).

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 are used to serve (portions) of these populations.

Structures

Most structures in the City have some measure of risk to dam failure. Dam failure flooding can affect the built environment of the City. Structures in dam inundation areas are at risk and depending on flood depths, can range from slight damage to totally inundated. Analysis by Extremely High Hazard and High Hazard dam follows.

A GIS based analysis was used to determine the possible impacts of dam inundation flooding on parcels and structures within the City of Rancho Cordova. The methodology described in Section 4.3.8 of the Base Plan was followed in determining City parcels and structures at risk to dam failure. Parcel counts, land and improved values (i.e., those with a structure improvement on the parcel), estimated content replacement values, and total values that fall within dam inundation areas in the City are presented below by hazard classification and by dam. The results are presented in Table E-21 for Extremely High Hazard and Table E-22 for High Hazard for the dams that affect the City. While not currently mapped, this includes those structures impacted by a future Folsom dam incident.

Table E-21 City of Rancho Cordova – Count and Value of Parcels and Structures in Extremely High Hazard Dam (Outside the County) Inundation Area by Property Use

Dam Inundation Area / Property Use	Total Parcel Count	Improved Parcel Count	Total Land Value	Structure Value	Total Value	Estimated Contents Value	Total Value
Union Valley							
Care / Health	5	4	\$707,962	\$1,814,907	\$2,522,869	\$1,814,907	\$4,337,776
Church / Welfare	16	16	\$6,810,113	\$31,370,785	\$38,180,898	\$31,370,785	\$69,551,683
Industrial	32	30	\$24,333,689	\$67,972,471	\$92,306,160	\$101,958,707	\$194,264,867

Dam Inundation Area / Property Use	Total Parcel Count	Improved Parcel Count	Total Land Value	Structure Value	Total Value	Estimated Contents Value	Total Value
Miscellaneous	92	0	\$153,695	\$0	\$153,695	\$0	\$153,695
Office	39	34	\$14,850,158	\$40,522,621	\$55,372,779	\$40,522,621	\$95,895,400
Public / Utilities	20	0	\$0	\$0	\$0	\$0	\$0
Recreational	2	1	\$870,807	\$2,490,606	\$3,361,413	\$2,490,606	\$5,852,019
Residential	5,428	5,400	\$433,949,457	\$1,242,045,772	\$1,675,995,229	\$621,022,886	\$2,297,018,115
Retail / Commercial	38	36	\$20,969,522	\$27,523,129	\$48,492,651	\$27,523,129	\$76,015,780
Unknown	94	0	\$0	\$0	\$0	\$0	\$0
Vacant	21	2	\$10,613,708	\$255,540	\$10,869,248	\$0	\$10,869,248
Union Valley Total	5,787	5,523	\$513,259,111	\$1,413,995,831	\$1,927,254,942	\$826,703,641	\$2,753,958,583

Source: DSOD, Sacramento County 2025 Parcel/Assessor Data

Table E-22 City of Rancho Cordova – Count and Value of Parcels and Structures in High Hazard Dam (Inside the County) Inundation Area by Property Use

Dam Inundation Area / Property Use	Total Parcel Count	Improved Parcel Count	Total Land Value	Structure Value	Estimated Contents Value	Total Value
Nimbus						
Care / Health	11	10	\$4,142,817	\$28,518,254	\$28,518,254	\$61,179,325
Church / Welfare	24	24	\$9,673,657	\$41,659,731	\$41,659,731	\$92,993,119
Industrial	130	125	\$110,126,377	\$361,916,619	\$542,874,929	\$1,014,917,925
Miscellaneous	115	0	\$390,932	\$0	\$0	\$390,932
Office	79	72	\$33,401,305	\$84,975,359	\$84,975,359	\$203,352,023
Public / Utilities	39	0	\$0	\$0	\$0	\$0
Recreational	6	5	\$6,803,187	\$18,888,590	\$18,888,590	\$44,580,367
Residential	9,053	9,018	\$778,510,730	\$2,219,347,534	\$1,109,673,767	\$4,107,532,031
Retail / Commercial	157	147	\$121,537,841	\$202,806,277	\$202,806,277	\$527,150,395
Unknown	103	0	\$0	\$0	\$0	\$0
Vacant	126	2	\$47,335,617	\$255,540	\$0	\$47,591,157
Nimbus Total	9,843	9,403	\$1,111,922,463	\$2,958,367,904	\$2,029,396,907	\$6,099,687,274

Source: Cal OES, Sacramento County 2025 Parcel/Assessor Data

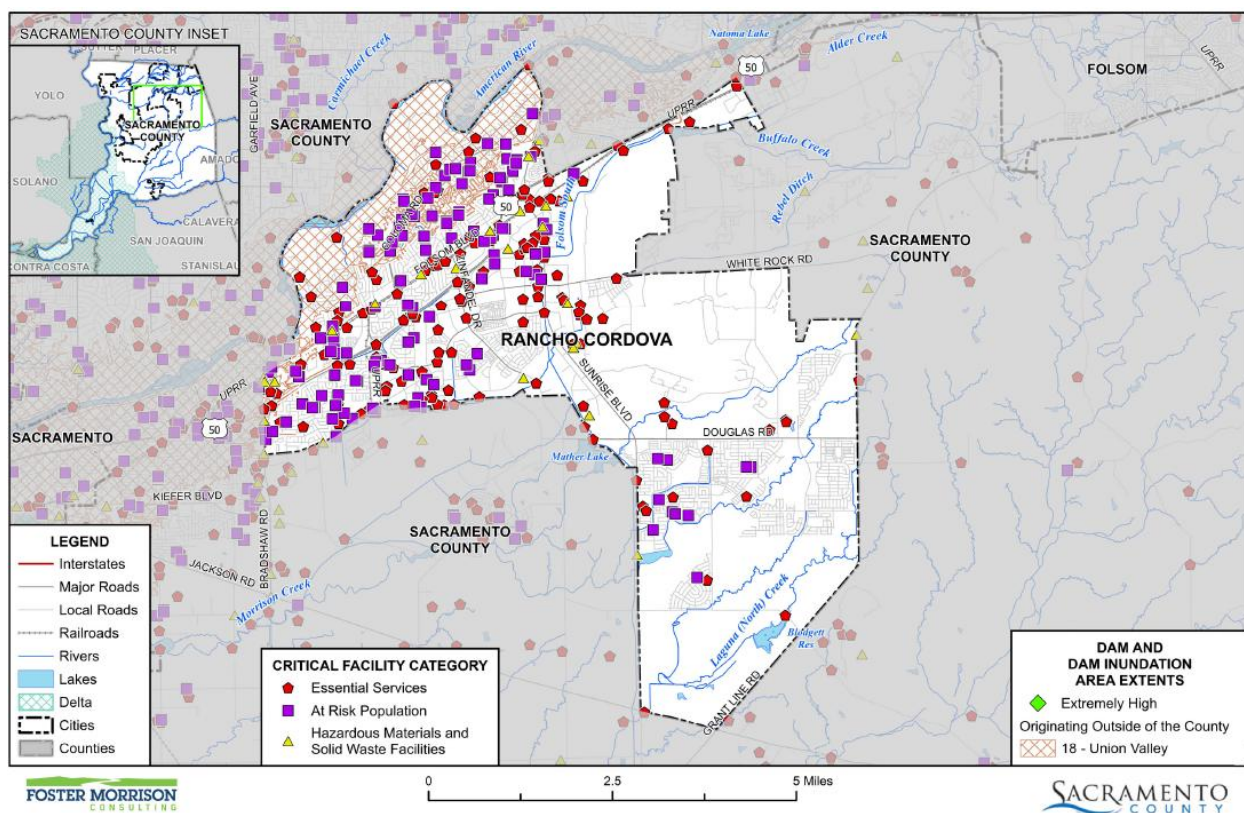
Critical Facilities and Infrastructure

Dam failure flooding presents a threat to critical facilities and infrastructure. For example, transportation routes, including bridges and highways, are vulnerable to dam inundation and have the potential to be

unpassable and even destroyed, creating isolation and supply chain issues. Those critical facilities that are most vulnerable include those that are already in poor condition and would not be able to withstand a large water surge.

The following analysis was performed on the critical facility inventory in the City to determine which critical facilities fall into each DSOD/Cal OES dam inundation area. This was done separately for both Extremely High Hazard and High Hazard dam inundation areas. Using GIS, the Extremely High Hazard dam inundation areas were overlayed on the critical facility GIS layer. Using GIS, the Extremely High and High Hazard dam inundation areas were overlayed on the critical facility GIS layer. This is shown on Figure E-18 for Extremely High Hazard dam inundation areas and on Figure E-19 for the High Hazard dam inundation areas. Table E-23 details which critical facilities fall into the Extremely High Hazard dam inundation areas and Table E-24 details which critical facilities fall in the High Hazard dam inundation areas. While not currently mapped, this includes those critical facilities and infrastructure impacted by a future Folsom dam incident.

Figure E-18 City of Rancho Cordova – Critical Facilities in Extremely High Hazard Dam (Outside the County) Inundation Areas



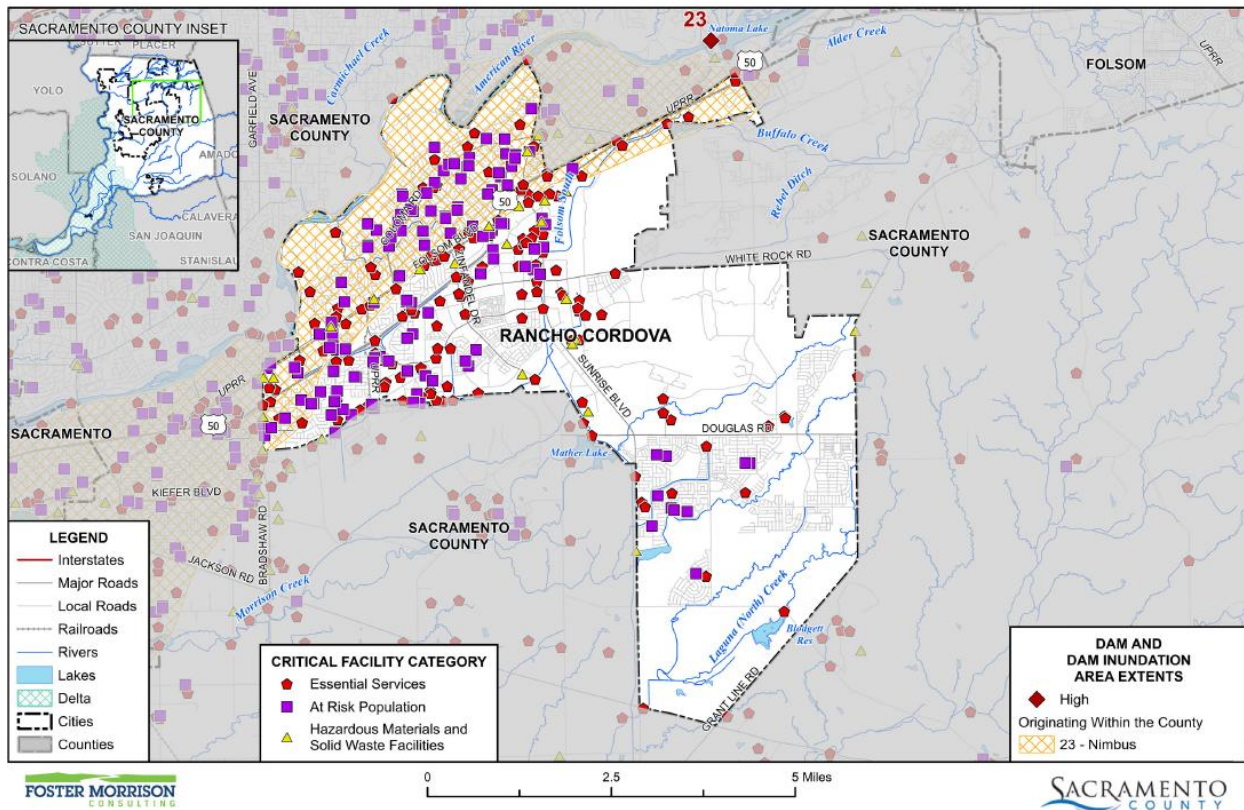
Data Source: DWR DSOD dam inundations (updated 7/2025; data downloaded 10/2025),
NID dam inventory and inundation data (updated 11/6/2025; data downloaded 11/6/2025),
Sacramento County, Cal-Atlas; Map Date: 4/20/2026.

Table E-23 City of Rancho Cordova – Critical Facilities in Extremely High Hazard Dam (Outside the County) Inundation Areas by Category and Type

Critical Facility Category	Facility Count
Essential Services Facilities	19
At Risk Population Facilities	21
Hazardous Materials and Solid Waste Facilities	3
Rancho Cordova Total	43

Source: DSOD/Cal OES, Sacramento County GIS

Figure E-19 City of Rancho Cordova – Critical Facilities in 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: 4/20/2026.

Table E-24 City of Rancho Cordova – Critical Facilities in High Hazard Dam (Inside the County) Inundation Areas

Critical Facility Category	Facility Count
Essential Services Facilities	19
At Risk Population Facilities	21
Hazardous Materials and Solid Waste Facilities	3

Critical Facility Category	Facility Count
Rancho Cordova Total	43

Source: DSOD/Cal OES, Sacramento County GIS

Natural, Historic, and Cultural Resources

A major dam failure event and associated flooding could have a devastating impact on the City. Large flood events can affect all natural, historic, and cultural resources that lie in the dam inundation areas. There are a number of ways floodwaters associated with a dam failure event 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 levées 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 survive 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 these structures within the inundated 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 dam failure flood events.

Impacts from Dam Failure

Impacts to the City from dam failure flooding could be extensive and widespread and include loss of life and injury, flooding and damage to property and structures, damage to critical facilities and infrastructure, loss of natural resources, and all other flood related impacts. Additionally, mass evacuations and associated economic losses can also be significant.

Other impacts associated with dam failure include landslides, bank erosion, and destruction of habitat. Dam failures can cause downstream flooding and can transport large volumes of sediment and debris and contaminants from the floodwaters. Other environmental impacts can include contamination from septic system failures and releases of contaminants from hazardous materials facilities, contamination of potable water supplies; changes in configurations of streams; loss of wildlife habitats; and degradation of wetlands. A large dam failure event could have significant and catastrophic impacts.

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 Climate Change and Dam Failure 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 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 rain and storm conditions and associated impacts and vulnerability of the City to dam failure. This was discussed in greater detail in the Climate Change and Dam Failure section of the Hazard Profile above.
- The City is expected to see slow and steady growth, and this additional growth within the dam inundation areas of the City would place additional populations at risk to dam failure. None of the 12 future development areas would fall in a dam inundation area, which would raise the population residing or working on those areas. Additional population growth, both inside and outside of these 12 future development areas would likely bring continued diversity to the City. Vulnerable population groups could face disproportionate effects from a dam failure and should be planned for. Changes in population and population patterns that will come from new development may or may not increase the impacts and vulnerability of the City to this hazard, depending on the location of new development and the affected populations and the nature and extent of a future dam failure event.
- 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 dam failure risk will put additional development at risk. 12 locations are expected to be developed in the next five years. None of the 12 future development area fall inside of the dam inundation areas. Changes in land use and future development is unlikely to increase the impacts and associated vulnerabilities of the City to this hazard, depending on the location of new development and the nature and extent of a future dam failure event.

Future Development

Future dam failure events may occur in the City. Siting of future development areas should take dam failure flooding into account. The City enforces its floodplain ordinance, which helps to reduce risk to flooding by requiring structures to be above the base flood elevation which, depending on inundation depths, may provide some relief.

Future development areas and their vulnerability to dam failure are discussed further in the below GIS analysis.

GIS Analysis

The City of Rancho Cordova provided 12 future development areas which were used as the basis for the inventory of future development for the City. These were mapped in GIS. None of these areas fall in dam inundation areas; as such, no mapping or tabular analysis is presented.

Drought & Water Shortage (w/Tree Mortality)

Likelihood of Future Occurrence–Likely

Vulnerability–High

Hazard Profile

Drought and water shortage are complex issues involving many factors—it occurs when a normal amount of precipitation is not available to satisfy an area’s usual water-consuming activities. Drought can often be defined regionally based on its effects. Drought is different than many of the other natural hazards in that it is not a distinct event and usually has a slow onset. Drought can severely impact a region both physically and economically. Drought affects different sectors in different ways and with varying intensities. Adequate water supply is the most significant issue and is critical for agriculture, manufacturing, tourism, recreation, and commercial and domestic use. Drought has also affected tree mortality in the area in the past. As the population in the area continues to grow, so will the demand for water.

Tree Mortality and Drought

One of the specific impacts of drought in the City of Rancho Cordova and the Sacramento County Planning Area is the increased risk to trees from insects, pathogens and parasites, and other tree mortality and die back issues. Drought weakens trees and makes them more susceptible to insect infestation and other pathogens. Insects, such as bark beetles and others, frequently attack trees weakened by drought, disease, injuries, or other factors that may stress the tree. These insects and other pathogens can contribute to the decline and eventual death of trees throughout the City. The tree mortality and dieback problems are a high priority because of the issue of hazardous trees and an increased wildfire hazard. In addition to an increase in wildfire fuels, hazardous trees can fall onto structures causing damage and result in a reduction on the tree canopy within the City that provides relief during extreme heat days.

Location and Extent

Drought and water shortage are regional phenomenon. The whole of the City and County is at risk. The US Drought Monitor categorizes drought conditions with the following scale:

- None
- D0 – Abnormally dry
- D1 – Moderate Drought
- D2 – Severe Drought
- D3 – Extreme Drought
- D4 – Exceptional Drought

The Sacramento County Planning Area, including the City of Rancho Cordova, has been in and out of drought since 2014. Over the last seven years since the 2021 LHMP, drought conditions have ranged from none to exceptional. Drought conditions are expected to continue to be cyclical in nature depending on the year.” Current drought conditions in the City are shown in Section 4.3.9 of the Base Plan.

Drought has a slow speed of onset and a variable duration. Drought can last for a short period of time (which does not usually affect water shortages) or for longer periods (which may challenge water supplies). Should a drought last for a long period of time, water shortage becomes a larger issue. The City’s water supplies are currently dependent upon a combination of ground- and surface-water resources. Water Services in Rancho Cordova are provided by two private water companies, Golden State Water and California American Water, and two public agencies, Sacramento County Water Agency and City of Folsom Water District.

Past Occurrences

Disaster Declaration History

There have been 3 state and 1 federal disaster declarations for Sacramento County. This can be seen in Table E-25. Additionally, there have been 26 USDA Secretarial Disaster Declarations from drought in the County, as shown in Past Occurrences in Section 4.3.9 of the Base Plan. These events also likely affected the City to some degree.

Table E-25 Sacramento County –State and Federal Drought Disaster Declarations 1950-2025

Disaster Type	State Declarations		Federal Declarations	
	Count	Years	Count	Years
Drought	4	2008, 2014, 2015	1	1977

Source: Cal OES, FEMA

NCDC Events

There have been 83 NCDC drought events in Sacramento County since 1993. These most likely had some impact on the City.

City of Rancho Cordova Events

Based on historical information, the occurrence of drought in California, including the City of Rancho Cordova, is cyclical, driven by weather patterns. Section 4.3.9 of the Base Plan notes that five droughts have occurred in the past 86 years, which impacted the City and Sacramento County Planning Area. The City Planning Team noted that the City has experienced multiple, consecutive years of drought.

These sections first show historic hazard events occurring since the 2021 LHMPs and then those occurring prior to the 2021 LHMP.

Events since 2021 LHMP

While drought events have occurred since the 2021 LHMP, no events causing direct impacts could be recalled.

Events prior to 2021

The City Planning Team noted that from 2014 to 2016, water restrictions were put in place to prevent watering yards on certain days and times. New residential front yard landscaping and non-residential landscaping to include landscape strips along the streets and road eliminated turf and were replaced with bark, rock, and/or drought tolerant shrubs/grasses. In the last five years, there have been some tree mortality incidents. The city's records do not include whether tree mortality is directly attributable to drought or other tree illness/infections but are included here nonetheless. The total count for dead trees in records of city-maintained trees may be up to 32 trees, which may also not fully capture trees that have not been inspected during the period since the last LHMP.

- 3 dead trees on Routier Road and Horn Road on 6/7/2021.
- 1 fallen oak tree in American River Tributary 2 on 7/1/2023.
- 1 fallen tree in Morrison Creek 2 on 9/10/2024.
- 1 fallen tree in American River Tributary 1 on 2/9/2026.

The total count for dead trees in records of city-maintained trees may be up to 32 trees, which may also not fully capture trees that have not been inspected during the period since the last LHMP.

Climate Change and Drought and Water Shortage

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

Climate scientists studying California find that drought conditions are likely to become more frequent and persistent over the 21st century due to climate change. The experiences of California during recent years underscore the need to examine more closely the state's water storage, distribution, management, conservation, and use policies. The 2024 Climate Adaptation Study (CAS) stresses the need for public policy development addressing long term climate change impacts on water supplies. The CAS notes that climate change is likely to significantly diminish California's future water supply, stating that: California must change its water management and uses because climate change will likely create greater competition for limited water supplies needed by the environment, agriculture, and cities.

Cal Adapt scenarios for modeled future drought scenarios were shown in Section 4.3.9 of the Base Plan.

The 2024 Sacramento County CAP noted that California, including Sacramento County, has a highly variable climate that is susceptible to prolonged periods of drought, and recent research suggests that extended drought occurrences (or "mega-droughts") could become more pervasive in future decades, which may result in major impacts on local water supplies and other secondary impacts. The County is not located in an area where snow accumulates, however, major water districts and utilities in the County receive and depend on a substantial amount of water from watersheds that rely upon spring and early-summer snowmelt in the Sierra Nevada mountain range. The Sierra Nevada snowpack, which serves as a natural water supply reservoir for California during the dry months, is predicted to decline in area covered and water volume stored as temperatures rise and precipitation falls more frequently as rain instead of snow at mountain elevations. Further, increased temperatures will affect the timing of historical snowmelt such that the

snowpack will typically melt earlier in the year, causing more rapid early spring flows in the Sacramento, American, Cosumnes, and Mokelumne Rivers and reduced late spring and summer flows. Approximately 50 percent of the County is served by groundwater supplies. Changes in surface water flow will have a direct impact on groundwater recharge, including decreased periods of recharge when late spring and summer stream flows diminish. Further, groundwater usage is higher in periods of drought, therefore, groundwater supplies may be reduced during and after periods of limited surface water flows.

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 drought. 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 drought vulnerability intensifies in the upper watersheds, where cumulative annual flow deficits are projected to increase by up to 25%, contributing to downstream water-supply and affordability pressures that disproportionately affect low-income households.

The Rancho Cordova 2024 Climate Action & Adaptation Plan noted that with the oscillation between wet and dry years and the potential for precipitation to occur over shorter, more intense time periods, there will be reduced opportunities for groundwater recharge, as these are not favorable conditions for soil infiltration and deep percolation. It should be noted that actual occurrence and duration of droughts are difficult to predict, but the City and surrounding regions are expected to experience extended drought periods as a result of climate change, and without effective adaptation actions or initiatives, future droughts may challenge the management of the region's water supplies, inclusive of the City.

Vulnerability to Drought and Water Shortage

Based on historical information, the occurrence of drought and water shortage in California, including the City, is cyclical, driven by weather patterns. Drought has occurred in the past and will occur in the future. Periods of actual drought with adverse impacts can vary in duration, and the period between droughts can be extended. Although an area may be under an extended dry period, determining when it becomes a drought is based on impacts to individual water users. The vulnerability of the City of Rancho Cordova to drought may vary and include reduction in water supply, turf losses, impacts to natural resources, and an increase in dry fuels and tree dieback.

The whole of the City is at some measure of vulnerability to drought and water shortage. An assessment of a community's vulnerability to drought and water shortage begins with an understanding of local exposure to drought. 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 vulnerability of the City to drought is City-wide, but impacts may vary and include reduction in water supply and an increase in dry fuels. The potential for a reduction in water supply during drought conditions

generally leads to both mandated and voluntary conservation measures during extended droughts. During these times, the costs of water can also increase. The increased dry fuels and fuel loads associated with drought conditions can also result in an increased fire danger. In areas of extremely dry fuels, the intensity and speed of fires can be significant. Water supply and flows for fire suppression can also be an issue during extended droughts.

Other qualitative impacts associated with drought in the City and Sacramento County Planning Area are those related to water intensive activities such as, municipal usage, commerce, tourism, recreation and agricultural use. Drought conditions can also cause soil to compact and not absorb water well, potentially making an area more susceptible to flooding.

With more precipitation likely falling as rain instead of snow in the Sierra's, and warmer temperatures causing decreased snowfall to melt faster and earlier, water supply is likely to become more unreliable. In addition, drought and water shortage is predicted to become more common. This means less water available for use over the long run, and additional challenges for water supply reliability, especially during periods of extended drought.

The City's water supplies are currently dependent upon a combination of ground- and surface-water resources, which are provided by two private water companies, Golden State Water and California American Water, and two public agencies, Sacramento County Water Agency and City of Folsom Water District. The City partners with the water providers for long-range planning of drinking water resources. In 2006, the Rancho Cordova City Council authorized the creation of the Sacramento Central Groundwater Authority (SCGA) through execution of a Joint Powers Agreement with the Cities of Elk Grove, Folsom, Sacramento, and the County of Sacramento. The purpose of the SCGA includes maintaining long-term sustainable yield, managing use of groundwater, safeguarding water quality, and coordinating water policies and activities around the Central Groundwater Basin. City of Rancho Cordova and Golden State Water Company staff representatives to the Governing Board are appointed by the City Council to serve a four year term.

The City participates in the Sacramento region's Lower American River "Water Forum" as a member of the Public Caucus. In May 2026, City Council approved the Water Forum 2050 Agreement which "builds on the original 2000 Water Forum Agreement and continues the region's commitment to two coequal objectives: providing a reliable water supply for the region's economy and communities while protecting the fishery, wildlife, recreational, and aesthetic values of the Lower American River."

The City's primary concerns with drought are related to both future water supply reliability and to physical hazards of fire hazards and tree mortality. During previous droughts, the City provided messaging to residents on how to save water. However, as the City is not a water provider, messaging pointed residents toward contacting their water providers with any specific questions.

The Rancho Cordova Municipal code contains several regulations to encourage groundwater filtration, including requiring the use of porous pavement and vegetative buffers in new development and redevelopment sites, and limiting impervious surfaces on development properties, including single-family residential.

Assets at Risk

Assets at risk from drought and water shortage 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

The people and populations of the City are not directly affected by drought; although, their turfed areas, trees, and other water dependent resources can all be affected. In extreme drought conditions, however, residents and other populations within the City may be vulnerable to drought and water shortage issues. Water quality can be impacted causing health problems, especially to vulnerable populations. Drought and water shortage can lead to an increase in wildfires threatening City residents. Water shortages can have an effect on all of the population in the City, but often have a greater effect on the unhoused and other vulnerable populations that may be unable to access clean drinking water during shortages. During periods of drought, as the costs of water usage may increase, especially during mandated conservation times, those who are economically disadvantaged may be unable to afford the increased costs of potable water.

Structures

Structures have a limited vulnerability to drought and water shortage. It is the secondary hazard of drought (wildfire) which causes risks to structures. Drought can also stress trees, causing die off. These trees may fall on structures adjacent to them.

Critical Facilities and Infrastructure

Most critical facilities and infrastructure have a limited vulnerability to drought and water shortage. Should drought conditions be severe enough to cause water shortage reliability issues, some facilities and infrastructure may be affected. Water and wastewater systems may be impacted during times of reduced water supply and need to employ contingencies to remain functional and fully operational. Other water-dependent systems may also be adversely affected. Further, the secondary hazard of drought (increased potential for spread of urban fires and wildfire) can pose a significant risk to critical facilities and infrastructure. Sufficient water supply for firefighting can also be an issue. Drought can also stress trees, causing die off. These trees may fall on critical infrastructure adjacent to them and impact power lines and other utilities.

Natural, Historic, and Cultural Resources

Drought and water shortage can have a significant impact on natural resources. Water levels in reservoirs and lakes may be reduced and a loss of wetlands and marsh areas may occur. Severe drought conditions can contribute to an increase in erosion of soils and lead to poor soil and water quality. Further, all of the trees in the City are at risk to drought impacts and a reduction in water supply. These trees provide a wealth of social and environmental benefits to City residents and visitors, from shade and beauty to air quality, carbon reduction and stormwater management. Drought can devastate crops and dry out pastures, dry out forests and critical habitat areas, and reduce food and water available for wildlife and livestock, the latter detailed above as a specific concern to the City. Additionally, drought conditions can also cause soil to

compact and not absorb water well, potentially making an area more susceptible to flooding. It is unlikely that drought and water shortage would have a significant impact on historic and cultural resources in the City.

Impacts from Drought and Water Shortage

The vulnerability of the City to drought is City-wide, but impacts may vary and include reduction in water supply and an increase in dry fuels. The potential for a reduction in water supply during drought conditions generally leads to both mandated and voluntary conservation measures during extended droughts. During these times, the costs of water can also increase. Also of concern, the increased dry fuels, fuel loads, and tree mortality events associated with drought conditions can result in an increased fire danger. In areas of extremely dry fuels, the intensity and speed of fires can be significant. Water supply and flows for fire suppression can also be an issue during extended droughts. Drought can also lead to turf losses and cause tree die off within the City.

Other qualitative impacts associated with drought in the City are those related to water intensive activities such as municipal usage, commerce, tourism, and recreation use. With more precipitation likely falling as rain instead of snow in the Sierra's, and warmer temperatures causing decreased snowfall to melt faster and earlier, water supply is likely to become more unreliable. In addition, drought and water shortage is predicted to become more common. This means less water available for use over the long run, and additional challenges for water supply reliability, especially during periods of extended drought.

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 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 Rancho Cordova include the following:

- Climate change is likely to exacerbate future drought conditions and associated impacts and vulnerability of the City to drought and water shortage. This was discussed in greater detail in the Climate Change and Drought and Water Shortage 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. Water shortages in the future may be worsened by drought. The City is expected to see slow and steady growth, and any future population growth (like that shown in the 12 future development areas) in the City will add additional pressure to water companies during periods of drought and water shortage, as will additional development in the City. Water companies

will need to continue to plan for and add infrastructure capacity for population growth. As the population grows, the nature and makeup of populations will shift and change along with it. Vulnerable and underserved populations, such as those with low incomes and the unhoused that might not always have access to clean water, will need to be considered as future development continues, since they may experience a disproportionate impact from drought and water shortage. Potential population growth will be a challenge not only with regard to the City's water access, but state- and nation-wide with regard to agriculture and food production. Should the City see a growth in population, it will increase the vulnerability and impacts to the City from this hazard.

- Land use planning should be proactive to address future hazard conditions. More development will require an increase in water supply and associated infrastructure. With the amount of growth planning in the City, changes in land use and development will likely increase the impacts and associated vulnerabilities of the City to this hazard, the extent, depending on where and how this future growth occurs.

Future Development

As the population in the City continues to grow, so will the demand for water. Ongoing planning will be needed by the City and local water companies to account for population growth and increased water demands.

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, this hazard is only profiled here. 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 Rancho Cordova, 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 Rancho Cordova.

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%, and 0.2% Annual Chance

Likelihood of Future Occurrence—Occasional (1%)/Unlikely (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. 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 Rancho Cordova. Occasionally, extended heavy rains result in floodwaters that exceed normal high-water boundaries and cause damage. Flooding has occurred both within the 1% and 0.2% annual chance floodplains and in other localized areas in the City.

Location and Extent

The City of Rancho Cordova has areas located in the 1% and 0.2% annual chance flood zones. This is seen in Figure E-20.

Figure E-20 City of Rancho Cordova – FEMA DFIRM Flood Zones

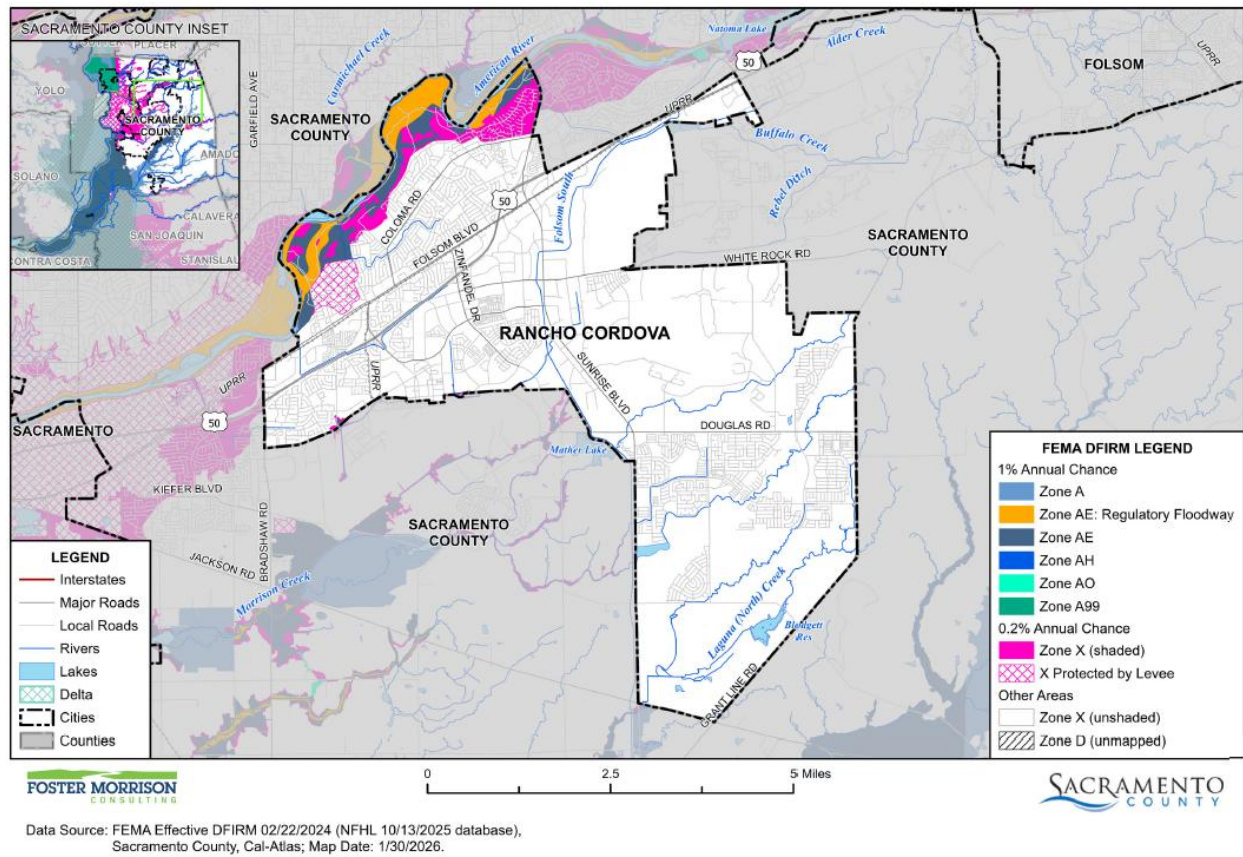


Table E-26 details the DFIRM mapped flood zones located within the City.

Table E-26 City of Rancho Cordova– DFIRM Flood Hazard Zones

Flood Zone	Description	Present in City of Rancho Cordova
A	1% annual chance flooding; No base flood elevations provided	
AE Regulatory Floodway	1% annual chance flood: Regulatory floodway; Base flood elevations provided	X
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	

Flood Zone	Description	Present in City of Rancho Cordova
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.	
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
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 E-27.

Table E-27 City of Rancho Cordova – Geographical DFIRM Flood Zone Extents

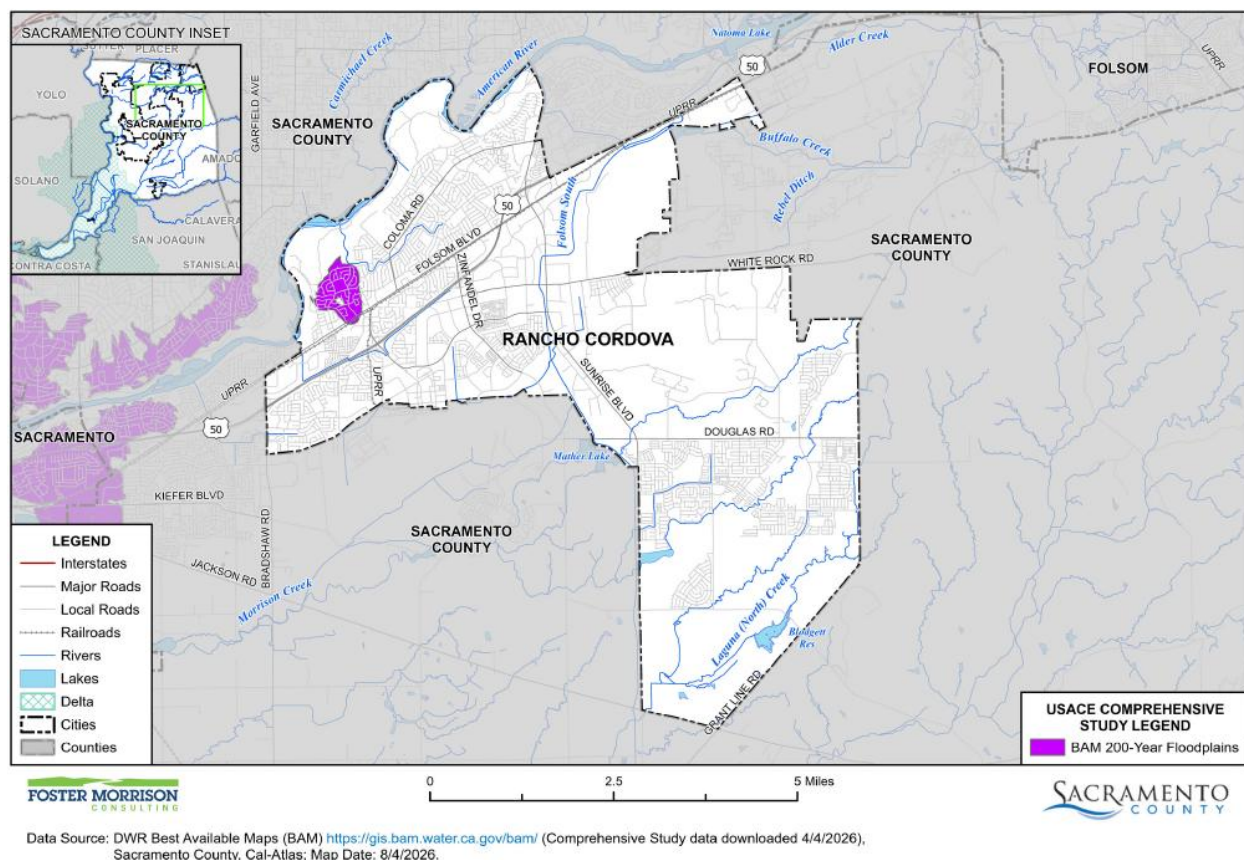
Flood Zone	Total Acres	% of Total Acres	Improved Acres	% of Total Improved Acres	Unimproved Acres	% of Total Unimproved Acres
1% Annual Chance Flood Hazard	1,149	6%	23	0.3%	1,125	9%
0.2% Annual Chance Flood Hazard	694	3%	376	5%	318	3%
Other Areas	18,359	91%	7,170	95%	11,189	89%
City of Rancho Cordova Total	20,201	100%	7,569	100%	12,633	100%

Source: FEMA DFIRM 02/22/2024

0.5% Annual Chance Mapping

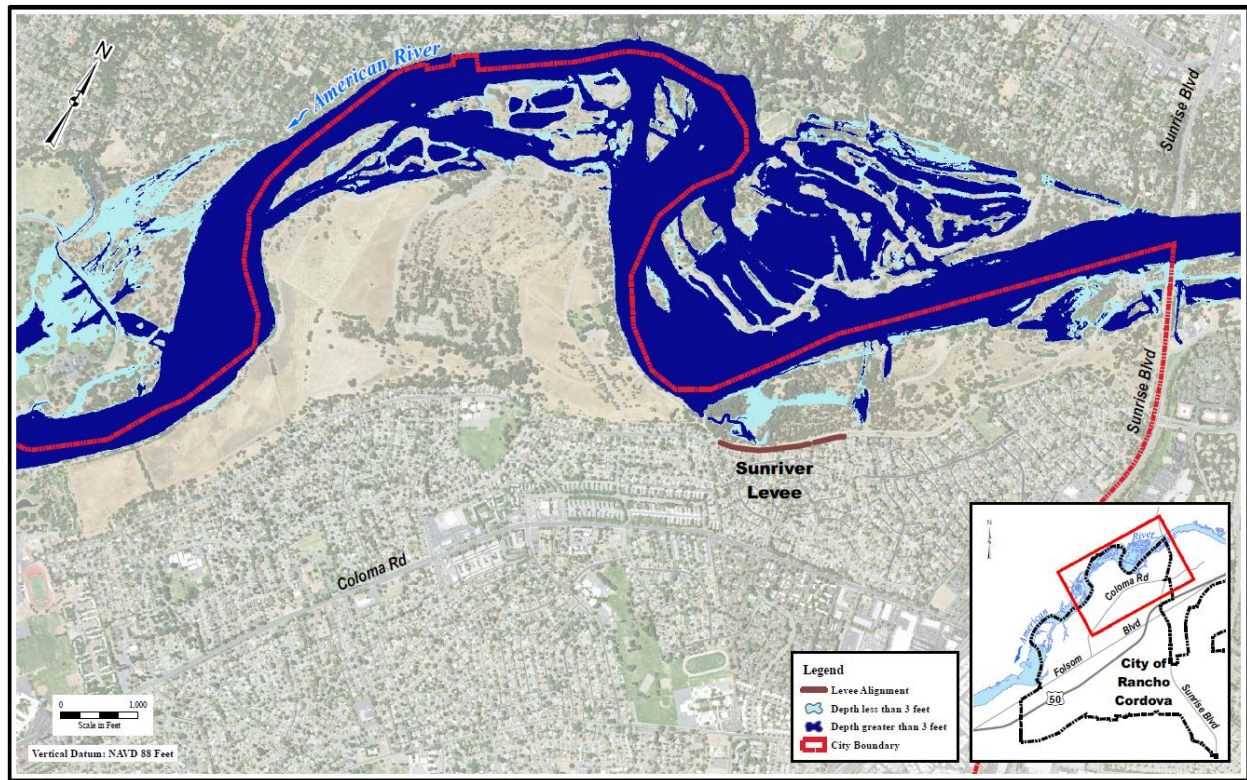
Urban level of flood control in California is defined as the level of protection necessary to withstand a 1-in-200 or 0.5% annual chance of flooding in any given year. This standard is mandated for urban and urbanizing areas within the Central Valley (populations of 10,000 or more) by the Central Valley 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 E-21.

Figure E-21 City of Rancho Cordova – 0.5% Annual Chance Flooding



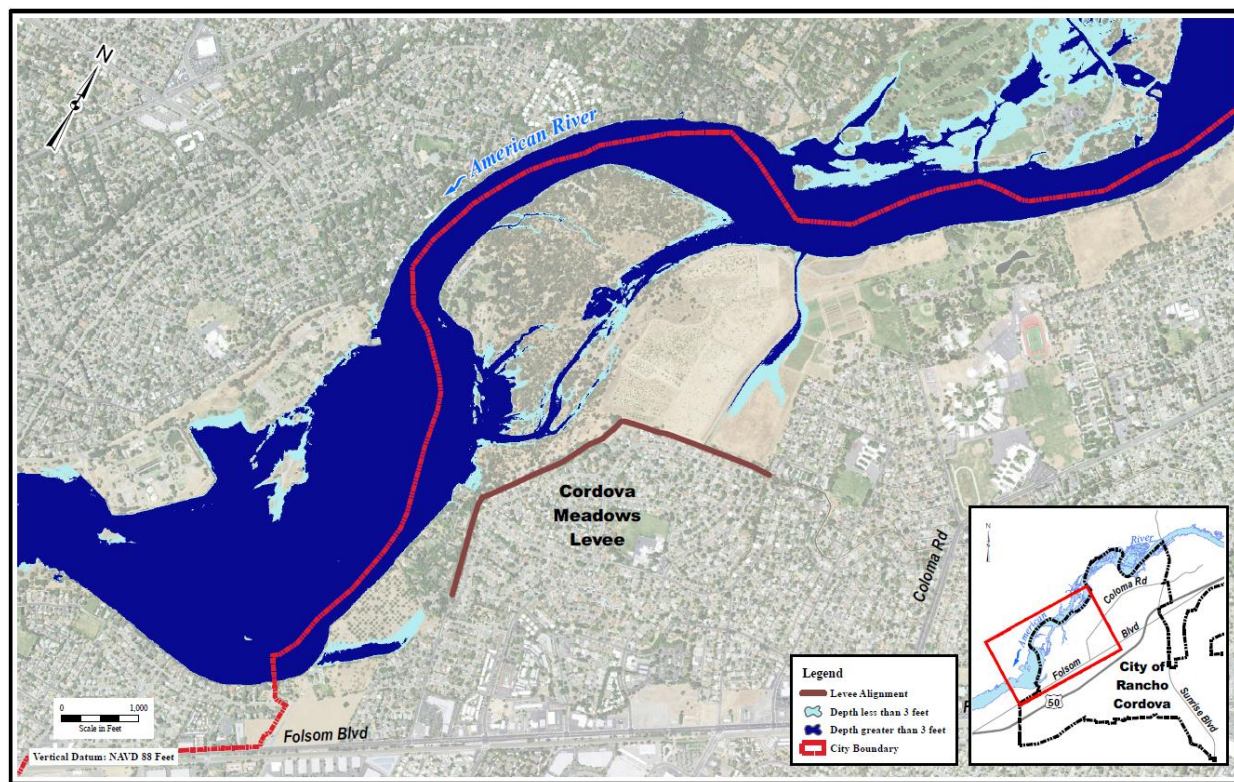
In addition, to satisfy the requirements of ULOP, the City developed a 200-yr floodplain map based on the proposed Folsom Dam improvements by the US Army Corps of Engineers. These are shown in Figure E-22 and Figure E-23. These improvements include the Joint Federal Project to improve the dam spillway and the future dam raise to increase flood storage. In conjunction with the new 200-yr map, the City made changes to its General Plan and zoning code that will guide development within the 200-yr Urban Level of Flood Protection. The map and associated code changes were adopted by the City Council in the Summer of 2016.

Figure E-22 City of Rancho Cordova – 200-year Flood Depth with Folsom Dam Raise (Upstream)



Source: City of Rancho Cordova, 2016

Figure E-23 City of Rancho Cordova – 200-year Flood Depth with Folsom Dam Raise (Downstream)



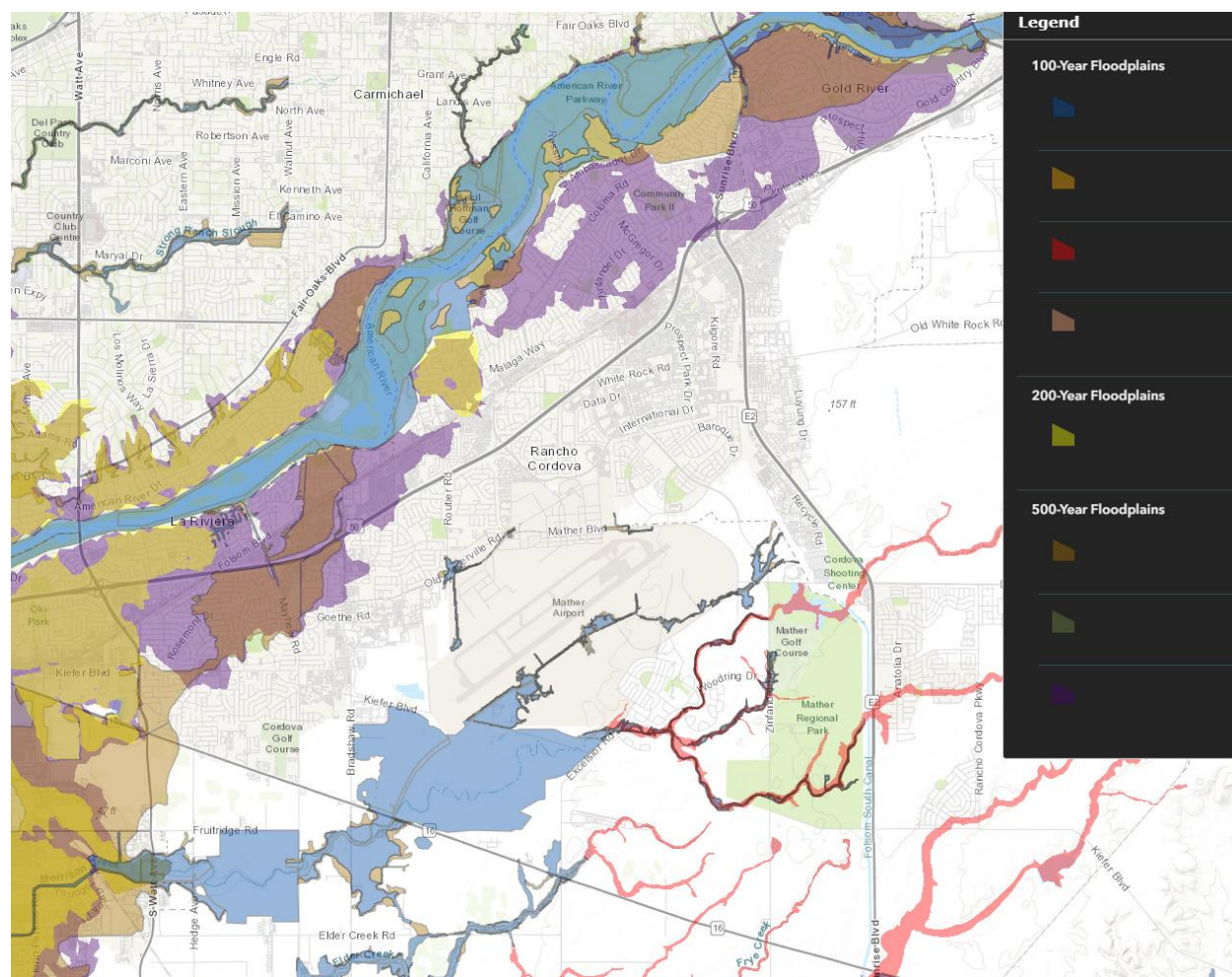
Source: City of Rancho Cordova, 2016

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 E-24.

Figure E-24 City of Rancho Cordova – 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 E-28. These events also likely affected the City to some degree.

Table E-28 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 Rancho Cordova Events

Other than localized flooding of streets, there have been no significant DFIRM riverine flooding events within the City. The impacts associated with 2023 and 2024 disaster declarations were largely a result of localized stormwater flooding and are outlined in the Flood: Localized Stormwater Flooding 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 Rancho Cordova. 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 City and County. 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 Rancho Cordova 2024 Climate Action & Adaptation Plan noted that Sacramento County, inclusive of the City, is projected to experience an increase in average annual precipitation through the end of the century, and much of the precipitation is likely to occur during extreme precipitation events, which can lead to flood impacts throughout the City. More information can be found in the Severe Weather: Heavy Rains and Storms section below.

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%, 0.5%, 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.

Regarding potential impacts of extreme precipitation and flooding, there are an array of facilities and properties in the City that are at direct risk from flooding, as they lie within the City's 1%, 0.5%, and 0.2% annual chance floodplains. Most notably, this includes over 1,000 residential properties, but also multiple other facility types in or near the City's floodplains, including retail and utilities. Additionally, there are currently two levees in the City which protect residential neighborhoods: Cordova Meadows Levee and Sunriver Levee. These levee systems will be at increased risk of failure due to the potential for more intense and frequent extreme precipitation events in the future.

Structures can also be damaged from trees falling as a result of water-saturated soils. Electrical power outages happen, and the interruption of power causes major problems. Loss of power is usually a precursor to closure of governmental offices and community businesses. The City's biggest concern associated with floods includes severe local flooding and street flooding and any potential impacts to residential neighborhoods and 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.

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%, 0.5%, and 0.2% 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%, 0.5%, and 0.2% 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 Rancho Cordova'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 Rancho Cordova – 2.81. According to this analysis, there is a total population of 138 and 5,725 residents of the City at risk to flooding in the 1% and 0.2% annual chance floodplains, respectively. This is shown in Table E-29.

Table E-29 City of Rancho Cordova – 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
Rancho Cordova	48	138	1,988	5,725

Source: FEMA DFIRM 02/2024, 2025 Sacramento County Parcel/Assessor Data, 2020 US Census Bureau Average Household Size –City of Rancho Cordova (2.81).

*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%, 0.5%, 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 Rancho Cordova. The methodology described in Section 4.3.11 of the Base Plan was followed in determining structures and values at risk to the 1% and 0.2% annual chance flood event. Table E-30 is a summary table for the City of Rancho Cordova. 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 E-31 breaks down Table E-30 and shows the same analysis further broken out by detailed FEMA flood zone and property use.

Table E-30 City of Rancho Cordova – 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	105	49	\$22,890,919	\$26,948,440	\$17,124,220	\$66,963,579
0.2% Annual Chance Flood Hazard	2,057	2,009	\$188,885,097	\$537,272,589	\$280,323,650	\$1,006,481,336
Other Areas	26,049	22,077	\$3,932,176,763	\$9,656,600,473	\$6,873,371,275	\$20,462,148,511
Rancho Cordova Total	28,211	24,135	\$4,143,952,779	\$10,220,821,502	\$7,170,819,145	\$21,535,593,426

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

*With respect to improved 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 E-31 City of Rancho Cordova – 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	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	16	0	\$30	\$0	\$0	\$30
Office	1	1	\$1,700,000	\$7,300,000	\$7,300,000	\$16,300,000
Public / Utilities	1	0	\$0	\$0	\$0	\$0
Recreational	0	0	\$0	\$0	\$0	\$0
Residential	42	42	\$7,742,516	\$13,488,742	\$6,744,371	\$27,975,629
Retail / Commercial	0	0	\$0	\$0	\$0	\$0
Unknown	0	0	\$0	\$0	\$0	\$0
Vacant	8	0	\$4,384,557	\$0	\$0	\$4,384,557
Zone AE Total	68	43	\$13,827,103	\$20,788,742	\$14,044,371	\$48,660,216
Zone AE: Regulatory Floodway						
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	28	0	\$19	\$0	\$0	\$19
Office	0	0	\$0	\$0	\$0	\$0
Public / Utilities	0	0	\$0	\$0	\$0	\$0
Recreational	1	0	\$9	\$0	\$0	\$9
Residential	6	6	\$2,165,926	\$6,159,698	\$3,079,849	\$11,405,473

Flood Zone / Property Use	Total Parcel Count	Improved Parcel Count	Total Land Value	Structure Value	Estimated Contents Value	Total Value
Retail / Commercial	0	0	\$0	\$0	\$0	\$0
Unknown	0	0	\$0	\$0	\$0	\$0
Vacant	2	0	\$6,897,862	\$0	\$0	\$6,897,862
Zone AE: Regulatory Floodway Total	37	6	\$9,063,816	\$6,159,698	\$3,079,849	\$18,303,363
1% Annual Chance Flood Hazard Total	105	49	\$22,890,919	\$26,948,440	\$17,124,220	\$66,963,579
0.2% Annual Chance Flood Hazard						
Zone X (shaded)						
Agricultural	0	0	\$0	\$0	\$0	\$0
Care / Health	0	0	\$0	\$0	\$0	\$0
Church / Welfare	2	2	\$283,075	\$6,710,600	\$6,710,600	\$13,704,275
Industrial	1	0	\$0	\$0	\$0	\$0
Miscellaneous	6	0	\$20	\$0	\$0	\$20
Office	3	3	\$2,282,694	\$4,317,394	\$4,317,394	\$10,917,482
Public / Utilities	3	0	\$0	\$0	\$0	\$0
Recreational	0	0	\$0	\$0	\$0	\$0
Residential	1,186	1,184	\$100,938,529	\$271,470,291	\$135,735,146	\$508,143,966
Retail / Commercial	4	4	\$5,451,886	\$6,552,075	\$6,552,075	\$18,556,036
Unknown	3	0	\$0	\$0	\$0	\$0
Vacant	6	1	\$1,406,653	\$171,183	\$0	\$1,577,836
Zone X (shaded) Total	1,214	1,194	\$110,362,857	\$289,221,543	\$153,315,215	\$552,899,615
X Protected by Levee						
Agricultural	0	0	\$0	\$0	\$0	\$0
Care / Health	4	3	\$420,988	\$1,712,424	\$1,712,424	\$3,845,836
Church / Welfare	0	0	\$0	\$0	\$0	\$0
Industrial	0	0	\$0	\$0	\$0	\$0
Miscellaneous	11	0	\$17,432	\$0	\$0	\$17,432
Office	1	1	\$110,323	\$587,788	\$587,788	\$1,285,899

Flood Zone / Property Use	Total Parcel Count	Improved Parcel Count	Total Land Value	Structure Value	Estimated Contents Value	Total Value
Public / Utilities	2	0	\$0	\$0	\$0	\$0
Recreational	0	0	\$0	\$0	\$0	\$0
Residential	816	804	\$75,723,907	\$242,085,222	\$121,042,611	\$438,851,740
Retail / Commercial	7	7	\$2,228,356	\$3,665,612	\$3,665,612	\$9,559,580
Unknown	0	0	\$0	\$0	\$0	\$0
Vacant	2	0	\$21,234	\$0	\$0	\$21,234
X Protected by Levee Total	843	815	\$78,522,240	\$248,051,046	\$127,008,435	\$453,581,721
0.2% Annual Chance Flood Hazard Total	2,057	2,009	\$188,885,097	\$537,272,589	\$280,323,650	\$1,006,481,336
Other Areas						
Zone X (unshaded)						
Agricultural	23	3	\$7,507,713	\$155,361	\$155,361	\$7,818,435
Care / Health	11	10	\$7,973,319	\$49,052,821	\$49,052,821	\$106,078,961
Church / Welfare	32	31	\$21,505,634	\$64,074,388	\$64,074,388	\$149,654,410
Industrial	752	717	\$419,354,194	\$1,171,606,763	\$1,757,410,145	\$3,348,371,102
Miscellaneous	744	3	\$1,160,750	\$1,050,563	\$1,050,563	\$3,261,876
Office	275	244	\$289,513,972	\$1,102,706,639	\$1,102,706,639	\$2,494,927,250
Public / Utilities	53	0	\$19	\$0	\$0	\$19
Recreational	15	10	\$9,199,533	\$23,785,160	\$23,785,160	\$56,769,853
Residential	21,041	20,770	\$2,410,936,183	\$6,715,897,351	\$3,357,948,676	\$12,484,782,210
Retail / Commercial	269	251	\$266,340,101	\$517,187,523	\$517,187,523	\$1,300,715,147
Unknown	107	0	\$0	\$0	\$0	\$0
Vacant	2,727	38	\$498,685,345	\$11,083,904	\$0	\$509,769,249
Zone X (unshaded) Total	26,049	22,077	\$3,932,176,763	\$9,656,600,473	\$6,873,371,275	\$20,462,148,511
Other Areas Total	26,049	22,077	\$3,932,176,763	\$9,656,600,473	\$6,873,371,275	\$20,462,148,511

Flood Zone / Property Use	Total Parcel Count	Improved Parcel Count	Total Land Value	Structure Value	Estimated Contents Value	Total Value
Rancho Cordova Total	28,211	24,135	\$4,143,952,779	\$10,220,821,502	\$7,170,819,145	\$21,535,593,426

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

*With respect to improved 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 E-32 shows City of Rancho Cordova loss estimates and improved values at risk by FEMA 1% and 0.2% annual chance flood zones. According to Table E-31 and Table E-32, the City of Rancho Cordova has 49 parcels and \$44.1 million of structure and contents values or values in the 1% annual chance flood zone, and 2,009 improved parcels and \$814.596 million of structure and contents values in the 0.2% annual chance flood zone. 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 \$8.8 million in damage and a 0.2% chance in any given year of a flood event causing \$163.5 million in damage in the City of Rancho Cordova. The loss ratio of 0.1% indicates that flood losses for 1% annual chance flooding would be minor and the City would be able recover. The loss ratio of 0.9% indicates that flood losses for 0.2% annual chance flooding would be relatively minor and the City would also be able to readily recover.

Table E-32 City of Rancho Cordova – 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	105	49	\$26,948,440	\$17,124,220	\$44,072,660	\$8,814,532	0.1%
0.2% Annual Chance Flood Hazard**	2,057	2,009	\$537,272,589	\$280,323,650	\$817,596,239	\$163,519,248	0.9%
Total	2,162	2,058	\$564,221,029	\$297,447,870	\$861,669,899	\$172,333,780	1.0%

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

*With respect to improved 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 Rancho Cordova joined the National Flood Insurance Program (NFIP) on September 15, 2004. The City does not participate in the CRS program. NFIP data from FEMA’s CIS database indicates that as of February 2, 2026, there were 101 flood insurance policies in force in the City with \$32,714,000 of coverage. There have been 0 historical claims for flood losses. Therefore, there are no repetitive loss or severe repetitive loss buildings in the City. There have been 0 substantial damage claims since 1978.

Based on this analysis of insurance coverage, the City has values at risk to the 1% annual chance and greater floods. Of the 49 improved parcels within the 1% annual chance flood zone, 9 of those parcels maintain flood insurance. This can be seen on Table E-33.

Table E-33 City of Rancho Cordova – 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
Rancho Cordova	49	9	18.4%

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 E-25 for the FEMA DFIRM flood zones. Table E-45 details which critical facilities fall in which FEMA DFIRM flood zones.

Figure E-25 City of Rancho Cordova – Critical Facilities in FEMA DFIRM Flood Zones

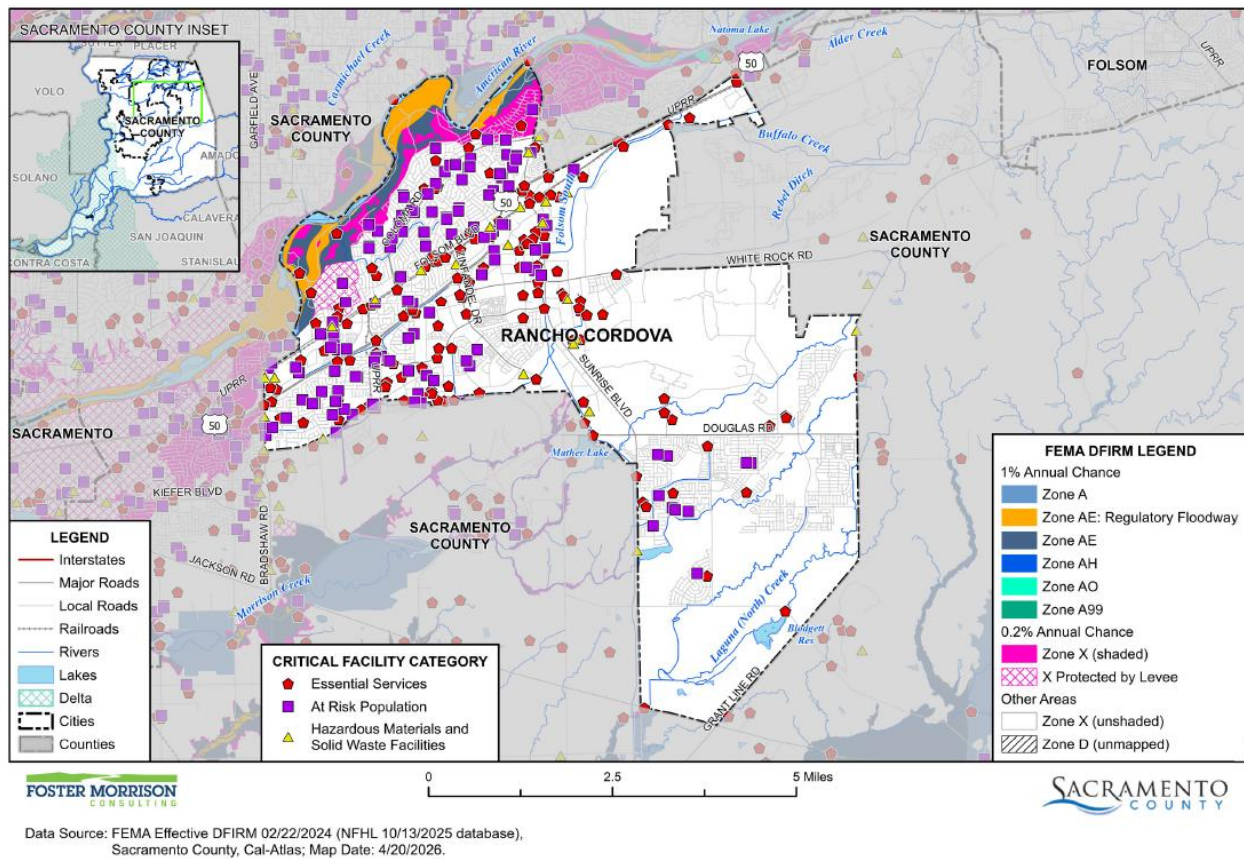


Table E-34 City of Rancho Cordova – Critical Facilities in FEMA DFIRM Flood Zones by Category and Type

Flood Zone	Critical Facility Category	Facility Count
1% Annual Chance Flood Hazard	Essential Services Facilities	3
	1% Annual Chance Flood Hazard Total	3
0.2% Annual Chance Flood Hazard	Essential Services Facilities	5
	At Risk Population Facilities	5
	0.2% Annual Chance Flood Hazard Total	10
Other Areas	Essential Services Facilities	213
	At Risk Population Facilities	147
	Hazardous Materials and Solid Waste Facilities	20
	Other Areas Total	380
Rancho Cordova Total		393

Source: FEMA DFIRM 02/2024, City of Rancho Cordova

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 E-20 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%, 0.5%, and 0.2% 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 Rancho Cordova include the following:

- Climate change is likely to exacerbate future flood conditions and associated impacts and vulnerability of the City to 1%, 0.5%, 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 12 areas where development is expected to occur in the next five years. These active developments, would place additional population in the flood zones. Additional population growth would likely bring continued diversity to the County. 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. The City has 12 areas where development is expected to occur in the next five years. 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

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 and effective dated 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.

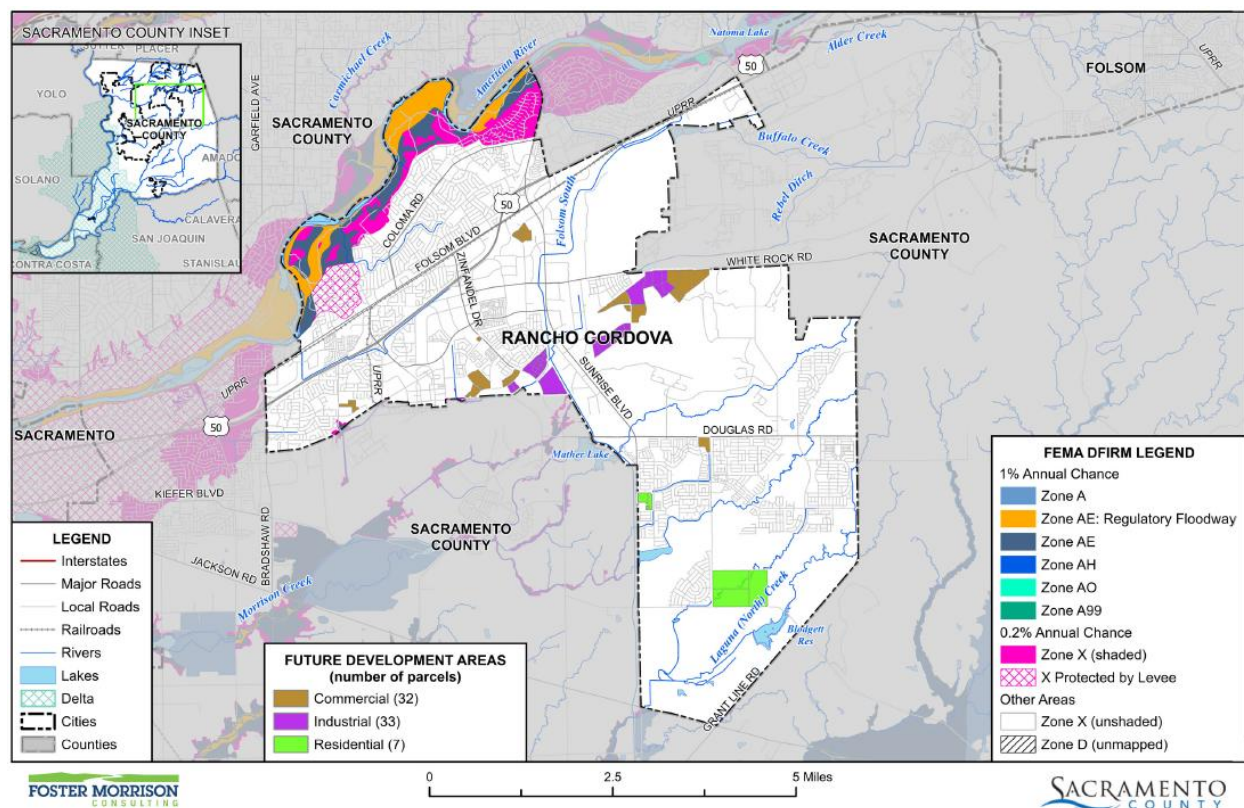
The City enforces its floodplain management ordinance. If any development is to occur in the floodplain, it would have to conform to the elevation and other standards of the floodplain ordinance. More detail on the specifics of the floodplain ordinance can be found in the Capability section below.

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 12 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 E-26 shows the locations of the future development area overlayed on the DFIRM flood zones. As shown in the map none of these future development areas sit in the 1% or 0.2% annual chance flood zone; as such, no tabular analysis is shown.

Figure E-26 City of Rancho Cordova – Future Development Areas in FEMA DFIRM Flood Zones



Data Source: FEMA Effective DFIRM 02/22/2024 (NFHL 10/13/2025 database), Sacramento County, Cal-Atlas; Map Date: 7/17/2026.

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 Rancho Cordova is subject to localized flooding throughout the City. Areas prone to localized flooding are included in Table E-35 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.

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. Some of these events may have affected the City

City of Rancho Cordova Events

These sections first show historic hazard events occurring since the 2021 LHMPs and then those occurring prior to the 2021 LHMP.

Events since 2021 LHMP

In fiscal year **2025/26**, the City experienced localized flooding at:

- Cobblestone near Bridlewood Dr
- Zinfandel Dr and Data Dr
- Zinfandel Dr and International Dr
- Sunrise Blvd going SB near the HWY 50 WB On Ramp
- Sunrise Blvd south of Monier Cir
- Intersection at Sunrise Blvd and White Rock Rd
- Zinfandel Dr and White Rock Rd
- Systems Pkwy
- S White Rock Rd and International Dr
- Bellone Way and Bigney Ct
- Gold Center Dr between Zinfandel and Prospect Park Dr
- Citrus Rd and Sunrise Blvd
- Folsom Blvd and Nimbus Rd
- Folsom Blvd and Bradshaw Rd
- Ambassador Drive and Rossmoor Dr

In fiscal year **2023/24**, the City experienced localized flooding at:

- Sunrise Golden Cir
- Sunrise Blvd south of Sunrise Gold Cir

- Coloma Rd and McGregor Dr
- Folsom Blvd and Nimbus Rd
- Point East Dr
- Folsom Blvd and Sunrise Blvd
- Zinfandel and Data Dr
- Zinfandel and International Dr
- Citrus Rd and Sunrise Blvd
- Mercantile Dr
- Sunrise Blvd and Trade Center Dr
- Mather Field Rd Near HWY 50 On Ramp going EB
- Mather Field Rd and El Mercado Dr
- Los Palos Dr
- Lincoln Village Dr between Virgo St and Viking Dr
- Gould and De Soto Way
- Dawes St between Malaga Way and Folsom Blvd
- Woodlawn and Benita Dr
- S White Rock Rd and International Dr
- S White Rock Rd and Rockingham Dr
- Omec Cir
- Abington Way
- Recycle Rd between Dismantle Ct and Omec Cir
- Sunrise Blvd south of Mechanical Dr
- Walnut Grove Way
- Jade Springs Way
- Woodberry Way
- Sunrise Blvd between Chrysanthy Blvd and Herodian Dr
- Douglas Rd between Americanos Blvd and Grantline Rd

In fiscal year **2021/22**, the City experienced localized flooding at:

- Gould and De Soto Way
- Sunrise Blvd south of Monier Cir
- Dawes St between Malaga Way and Folsom Blvd
- Coloma Rd and McGregor Dr
- Zinfandel Dr and International Dr
- Zinfandel Dr and White Rock Rd
- Coloma Rd and Vehicle Dr
- Citrus Rd and Sunrise Blvd
- Mather Field Rd Near HWY 50 On Ramp going EB
- Coloma Rd going EB near Mills Middle School
- Folsom Blvd and Rod Beaudry Dr
- McGregor Dr and Campana Way
- McGregor Dr and Carlos Way
- Gold Camp Dr
- Tuskett River Dr and Trinity River Rd
- Tannat Way near Dolecetto Dr

- Woodlawn Dr and Benita Dr
- Coloma Rd and Georgetown Dr
- Abington Way
- Routier Rd north of Ellenwood Ave
- Buena Plaza Cir
- Mills Tower Dr between Buena Plaza Cir West Exit and Buena Plaza Cir North Exit
- S White Rock Rd and International Dr
- Paiute Way
- Calle Del Sol Way
- Sunrise Blvd and White Rock Rd
- Roanne Way and Mircado Way
- Dolecetto Dr
- McGregor Dr and Scotsman Way
- Jupiter Dr north of Nebula Way
- Ellenwood Ave and Glenmoor Dr
- Glenmoor Dr and Sunol Way
- Kellogg Way west of El Manto Dr
- Data Dr and International Dr
- Old Placerville Rd west of Systems Pkwy
- Omec Cir
- Sunrise Blvd north of Hwy 50 on ramp going WB
- Olson Dr and Gwendolyn Way
- Folsom Blvd and Paseo Rio Way
- Fitzgerald Rd south of Hydraulic Dr
- Folsom Blvd and Nimbus Rd

Events prior to 2021

February 2015 - Widespread rainfall of 3 to 6 inches fell causing river flooding and urban flooding in poor drainage areas. A power outage left 8,000 customers without power in Sacramento, KCRA-TV reported. The outage was attributed to lightning after a Sacramento Municipal Utility District was damaged. The SMUD said indicated that 14,000 additional customers were left without power in the Carmichael-Rancho Cordova area.

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.

The Rancho Cordova 2024 Climate Action & Adaptation Plan noted that Sacramento County, inclusive of the City, is projected to experience an increase in average annual precipitation through the end of the

century, and much of the precipitation is likely to occur during extreme precipitation events, which can lead to flood impacts throughout the City. More information can be found in the Severe Weather: Heavy Rains and Storms section below.

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 Rancho Cordova are summarized in Table E-35.

Table E-35 City of Rancho Cordova – List of Localized Flooding Problem Areas

Road Name/Area	Issues	Road Impacts?	Home/ Business Impacts?	Evacuation Route?*
Bradshaw Rd, near southern city limits	Flood modeling shows the 10-year water surface elevation to be above the top of curb.	X		X
Coloma Rd and McGregor Dr	Frequent flooding during rain events along the north side of McGregor Drive, just west of Coloma Rd.	X		

Road Name/Area	Issues	Road Impacts?	Home/ Business Impacts?	Evacuation Route?*
Coloma Rd, just west of Sunrise Blvd	Flood modeling shows the 10-year water surface elevation to be above the top of curb.	X		
Douglas Rd, West of Sunrise Blvd	Currently, this segment of a roadway has ditches which occasionally flood the travel lanes. Full buildout of the road is dependent on development outside the city.	X		X
Ellenwood Ave and Routier Rd	Flood modeling shows the 100-year water surface elevation to be above a nearby building pad elevation along Ellenwood Ave, just east of Routier Rd.	X	X	X
Folsom Blvd near Don Juan Dr, Nimbus Rd	Historical records of street flooding by City O&M team. Flood modeling shows the 10-year and 100-year water surface elevation to be above the top of curb or a nearby building pad.	X	X	X
International Dr between S White Rock Rd and Data Dr	Flood modeling shows the 10-year water surface elevation to be above the top of curb. Repeated flooding observed within the last 5 years.	X		
Kiefer Blvd	Portions of this roadway contain roadside ditches. The road will be improved with underground storm drains in future development activity.	X		X
Mills Tower Dr between Buena Plaza Cir West Exit and Buena Plaza Circ North Exit	Regular street flooding due to inadequate pumping capacity. During large storm events, lowest homes in the area have a potential for flooding. In the flood model, the 10-year and 100-year water surface elevation levels are shown to be above the top of curb.	X	X	
Sunrise Blvd near Monier Circle, Recycle Rd, Mechanical Dr	Flood modeling shows the 10-year water surface elevation to be above the top of curb. Repeated flooding observed within the last 5 years.	X	X	X
Trade Center Dr and Sunrise Blvd	Flood modeling shows the 10-year water surface elevation to be above the top of curb.	X		X
White Rock Rd, East of Sunrise Blvd	Flood modeling shows the 10-year water surface elevation to be above the top of curb.	X		X

Road Name/Area	Issues	Road Impacts?	Home/ Business Impacts?	Evacuation Route?*
Citrus Rd and Sunrise Blvd	Repeated flooding observed within the last 5 years.	X	X	X
Zinfandel Dr near Data Dr, International Dr	Repeated flooding observed within the last 5 years.	X		X
Cobblestone and Bridlewood Dr	Repeated flooding observed within the last 5 years.	X	X	
Gould and De Soto Way	Repeated flooding observed within the last 5 years.	X		
Dawes St between Malaga Way and Folsom Blvd	Repeated flooding observed within the last 5 years.	X		
Woodlawn Dr and Benita Dr	Repeated flooding observed within the last 5 years.	X		
Omec Cir	Repeated flooding observed within the last 5 years.	X		

Source: City of Rancho Cordova

*Evacuation routes column for this table was based on key local arterial roads, freeways, or highways.

The City adopted a Stormwater Capital Improvement Program (SCIP) Master Plan in 2021 that guided flood control and drainage system improvements on a twenty-year planning horizon. These improvements are expected to mitigate the flooding areas previously mentioned in this section. The SCIP Master Plan focused on already-developed areas, while new development areas within Rancho Cordova are required to submit detailed drainage master plan documents as part of project approvals. Drainage Master Plans address the pre- and post-construction conditions of a watershed, considering flooding and various stormwater quality requirements.

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 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 Rancho Cordova 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 see slow and steady growth. The City has 12 areas planned for development in the next five years. Additional population growth would likely bring continued diversity to the City. This can also impact the vulnerable populations, like low-income individuals and households living in areas that are typically more hazardous. 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. The City has 12 areas planned for development in the next five years. Development in more urban areas causes an increase in peak flow and stormwater runoff. Such growth will consume previously undeveloped acres, and the impacts may overwhelm existing drainage and flood control facilities. 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.

Severe Weather: Extreme Heat

Likelihood of Future Occurrence–Highly Likely

Vulnerability–Medium

Hazard Profile

According to FEMA, extreme heat is defined as temperatures that hover 10 degrees or more above the average high temperature for the region and lasts for several weeks. Heat kills by taxing the human body beyond its abilities. In extreme heat and high humidity, evaporation is slowed, and the body must work extra hard to maintain a normal temperature.” Most heat disorders occur because the victim has been overexposed to heat or has over-exercised for his or her age and physical condition. Older adults, young children, those who are sick or overweight, and those that work or recreate outdoors are more likely to experience heat exhaustion or succumb to extreme heat.

In addition to the risks faced by populations in the City, there are risks to the built environment from extreme heat. While extreme heat on its own does not usually affect structures, extreme heat during times of drought can cause wildfire risk to heighten. Extreme heat can lead to interruptions in power, power outages, and when combined with high winds, to Public Safety Power Shutdown (PSPS) events, creating significant issues in the City.

Urban Heat Island

Large, urbanized areas can experience higher temperatures, greater pollution and more negative health impacts during hot summer months when compared to more rural communities. This phenomenon is known as an urban heat island. Heat islands are created by a combination of heat-absorptive surfaces (such as dark pavement and roofing), heat-generating activities (such as engines and generators) and the absence of vegetation (which provides evaporative cooling). According to the Sacramento County Air Quality Management District (SCAQMD) and the U.S. Environmental Protection Agency, daytime temperatures in urban areas are on average 1-6°F higher than in rural areas, while nighttime temperatures can be as much as 22°F higher as the heat is gradually released from buildings and pavement. The Urban Heat Island Index, developed by the California Environmental Protection Agency and adapted by SCAQMD), quantifies the extent and severity of urban heat islands for individual cities, including urban heat island interactive maps that show the urban heat island effect for each census tract in and around most urban areas throughout the State. This was shown in Section 4.3.3 of the Base Plan.

Location and Extent

Heat is a regional phenomenon and affects the whole of the City. Heat emergencies are often slower to develop, taking several days of continuous, oppressive heat before a significant or quantifiable impact is seen. Heat waves do not strike victims immediately, but rather their cumulative effects slowly affect general and vulnerable populations and communities. Heat waves do not generally cause damage or elicit the immediate response of floods, fires, earthquakes, or other more “typical” disaster scenarios. The City experiences temperatures in excess of 100°F during the summer and fall months. The temperature moves to 105-110°F in rather extreme situations.

The NWS has in place a system to initiate alert procedures (advisories or warnings) when extreme heat is expected to have a significant impact on public safety. The expected severity of the heat determines whether advisories or warnings are issued. The NWS HeatRisk forecast provides a quick view of heat risk potential over the upcoming seven days. The heat risk is portrayed in a numeric (0-4) and color (green/yellow/orange/red/magenta) scale which is similar in approach to the Air Quality Index (AQI) or the UV Index. This can be seen in Section 4.3.3 of the Base Plan.

Past Occurrences

Disaster Declaration History

There have been no federal or state disaster declarations from extreme heat.

NCDC Events

The NCDC data shows 68 extreme heat incidents for Sacramento County since 1993, some of which likely affected the City.

City of Rancho Cordova Events

These sections first show historic hazard events occurring since the 2021 LHMPs and then those occurring prior to the 2021 LHMP.

Events since 2021 LHMP

During extreme heat in **2025**, a planned burn in the American River Parkway became uncontrolled and damaged trees that the City planted for mitigation in a riparian habitat. Because of the damage to the trees, the City had to continue mitigation monitoring that would have already been completed if the trees survived.

From **2020 to 2024**, cooling centers were opened 58 times for temperatures over 100°F. Extreme cases can reach 105-115°F. The City did not record a need for opening a cooling center during the 2025 season.

Events prior to 2021

The City opened cooling centers on the following dates:

- September 6-8, 2020
- August 14-21, 2020
- August 14-16, 2019
- August 28-September 2, 2017
- August 1, 2017
- June 18-22, 2017
- July 26-29, 2016
- June 27-29, 2016
- June 2-4, 2016
- September 9-11, 2015
- July 28-30, 2015

Climate Change and Extreme Heat

The 2024 CAS, citing a California Energy Commission study, states that “over the past 15 years, heat waves have claimed more lives in California than all other declared disaster events combined.” This study shows that California is getting warmer, leading to an increased frequency, magnitude, and duration of heat waves. These factors may lead to increased mortality from excessive heat.

As temperatures increase, California and Sacramento County will face increased risk of death from dehydration, heat stroke, heat exhaustion, heart attack, stroke and respiratory distress caused by extreme heat. According to the 2024 CAS, report and the 2023 State of California Hazard Mitigation Plan, by 2100, hotter temperatures are expected throughout the state, with projected increases of 3-5.5°F (under a lower emissions scenario) to 8-10.5°F (under a higher emissions scenario). These changes could lead to an increase in deaths related to extreme heat in Sacramento County and the City.

According to the 2024 CAP, the County has experienced, and is projected to continue experiencing, increases in average annual temperature and extreme heat, which could lead to an array of potential impacts. According to Cal-Adapt, the average annual maximum and minimum temperature across Sacramento County are both projected to rise between 5 and 9 degrees Fahrenheit (°F) from their respective historic averages by the end of the century as a result of climate change.

The City of Rancho Cordova 2024 Climate Action & Adaptation Plan noted that the City has experienced, and is projected to continue experiencing, increases in average annual temperature and extreme heat, which could lead to an array of potential impacts, including negative public health outcomes, worsened air quality, increased demand for air conditioning, and deterioration of critical infrastructure. According to Cal-Adapt, the average annual maximum and minimum temperature in the City are both projected to rise between 5 and 9 °F by the end of the century as a result of climate change. Increased temperatures in the city will also lead to a significant increase in extreme heat events. For the City, an extreme heat day is defined as a day when the maximum temperature is above the extreme heat threshold of 103.6 °F, which is notably high compared to other regions of the State. Heat waves refer to a period of four or more consecutive extreme heat days (CEC 2021b). The average annual number of extreme heat days, heat waves, and the number of days in the longest stretch of consecutive extreme heat days are all projected to rise through the end of the century. Figure E-27 and Figure E-28 display historic data and future projections for increased temperatures and extreme heat in the City across each timescale through 2099.

Figure E-27 Changes in Average Annual Temperature in the City of Rancho Cordova

Average Annual Temperature	Historic (1961-1990)	Near-Term (2021-2050)	Midterm (2040-2070)	Long-Term (2070-2099)	
				Medium Emissions	High Emissions
Maximum Temperature (°F)	74.2	78.3	79.8	80.2	83.1
Minimum Temperature (°F)	49.3	52.9	54.1	54.3	57.7

Source: City of Rancho Cordova 2024 Climate Action & Adaptation Plan

Figure E-28 Changes in Extreme Heat in the City of Rancho Cordova

Annual Averages	Historic (1961-1990)	Near-Term (2021-2050)	Midterm (2040-2070)	Long-Term (2070-2099)	
				Medium Emissions	High Emissions
Number of Extreme Heat Days	4	19	32	29	48
Number of Heat Waves	0.2	1.4	4.8	4.0	7.8
Number of Days in Longest Stretch of Consecutive Extreme Heat Days	2.5	6.3	7.2	8.5	14.2

Source: City of Rancho Cordova 2024 Climate Action & Adaptation Plan

Vulnerability to Severe Weather: Extreme Heat

Extreme heat is becoming more frequent, intense, longer lasting and geographically widespread. Extreme heat occurs on an annual basis in the County and the City. In recent years, compounded by climate change conditions, summer months continue to get a bit hotter. The whole of the City is at some measure of vulnerability to extreme heat. An assessment of a community's vulnerability to extreme heat begins with an understanding of local exposure to extreme heat. 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 experiences extreme heat events on an annual basis. During extreme heat events, drought conditions may worsen and the City may see an increase in dry fuels and wildfire risk. Power outages may occur during these times as well.

Health issues are a primary concern with this hazard, especially to vulnerable and underserved populations. The elderly and individuals below the poverty level are the most vulnerable to extreme temperatures. Nursing homes and elder care facilities are especially vulnerable to extreme heat events if power outages occur and air conditioning is not available. In addition, individuals below the poverty level may be at increased risk to extreme heat if use of air conditioning is not affordable. The City anticipates necessity of opening cooling centers more frequently to accommodate vulnerable populations.

Assets at Risk

Assets at risk from extreme heat 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 within the City are vulnerable to extreme heat, but it generally affects people spending large amounts of time outside or without means of cooling indoor structures and other vulnerable populations.

The Rancho Cordova 2024 Climate Action & Adaptation Plan noted that extreme heat can be harmful to public health, especially for vulnerable populations, such as persons over the age of 65, infants and children, individuals with chronic health conditions, low-income individuals, people experiencing homelessness, and outdoor workers, among others. Notably, extreme heat can worsen local air quality and may cause heat-related illnesses, such as heat cramps or heat stroke. Additionally, increased temperatures and extreme heat may lead to a large increase in air conditioning demand across the City, placing more stress on the electricity grid, leading to higher-cost electricity bills for residents who have air conditioning access, and causing disproportionate impacts on individuals or families residing in units that do not have air conditioning. In addition to vulnerable populations, pets and livestock are at risk to extreme heat conditions. In addition to vulnerable populations, pets and livestock are at risk to extreme heat conditions.

Structures

Extreme heat normally does not generally impact structures, but individuals working in structures may be affected during periods of extended heat, especially in structures that might not be equipped with air conditioning or other means of cooling. The City noted that extreme heat has caused interruptions to power in the past. Also depending on the structure, sensitive contents such as IT equipment can be impacted, especially if a power outage occurs. Further, the City's transportation systems are at risk of being adversely affected by increased temperatures and extreme heat. During prolonged periods of increased temperatures or extreme heat, pavement may deteriorate, rail lines may buckle, the structural integrity of bridges may be compromised, air conditioning in buses could fail, and overall transportation maintenance costs may increase.

Critical Facilities and Infrastructure

Depending on their type and function, critical facilities and infrastructure can also be affected by extreme heat. Extreme heat conditions can cause interruptions in power and other operational issues that can lead to system failures. Schools without air conditioning may have to close or operate on a reduced schedule.

Natural, Historic, and Cultural Resources

Natural resource assets, including those located in City park and open space areas, may be vulnerable during periods of extreme heat. These include turf areas; landscapes, City trees, wildlife and habitat areas, and wetlands and marsh lands. Recently, trees were lost in areas of the City that were weakened by drought and extreme heat. Extreme heat may also cause drought-like conditions, contributing to other issues. For example, several weeks of extreme heat increases evapotranspiration and reduces moisture content in vegetation, leading to higher wildfire vulnerability in the region for that time period, even if the rest of the season is relatively moist. Historic and cultural resources are not expected to be affected by extreme heat.

Impacts from Severe Weather: Extreme Heat

The City experiences temperatures in excess of 100°F during the summer and fall months. The temperature moves to 105-110°F in rather extreme situations. During these times, drought conditions may worsen, and the City may see an increase in dry fuels and tree dieback. Also, power outage and PSPS events may occur during these times as well. Health issues are a primary concern with this hazard, especially to vulnerable populations, although economic impacts can also occur.

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 City include the following:

- Climate change is likely to exacerbate future extreme heat conditions and associated impacts and vulnerability of the City. This was discussed in greater detail in the Climate Change and Extreme Heat 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 see slow and steady growth. The City has 12 areas where growth is expected over the next five years. Any additional growth in the City would place additional populations at risk to extreme heat. However, any future low income and the unhoused or other vulnerable populations are at risk to extreme heat which can put strain on emergency services and shelters. 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 extreme heat events.
- Land use planning should be proactive to address future hazard conditions. The City has 12 areas where growth is expected over the next five years. City building codes are in effect to reduce this risk and should be updated as necessary to continue to address future extreme heat conditions. Changes in land use and 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 extreme heat events.

Future Development

Future development of new buildings in the City will likely not be affected by extreme heat. Extreme heat is more likely to affect vulnerable populations. Vulnerability to extreme heat will increase as the average age of the population shifts. It is encouraged that nursing homes and elder care facilities have emergency plans or backup power to address power failure during times of extreme heat and in the event of a power outage. Low-income residents, unhoused, and other vulnerable populations are at greater risk to this hazard and should be considered in future growth plans for the City. Cooling centers for these populations should be utilized when necessary. New and existing critical facilities and infrastructure should also consider adding backup power systems to limit impacts associated with power outages.

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 E-35 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 E-36, many of which likely affected the City.

Table E-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

*included a landslide component

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 and the City.

City of Rancho Cordova Events

These sections first show historic hazard events occurring since the 2021 LHMPs and then those occurring prior to the 2021 LHMP.

Events since 2021 LHMP

On October 24, 2021. The City received a 24-hour record total of 5.5 inches of rain during a storm on October 24, 2021, which is equivalent to a 500-year event according to local hydrologic models. The 72-hour rainfall total over the duration of the October 2021 storm for Rancho Cordova was approximately 6.5 inches. The intense rain caused flooding in most of the locations which were modeled as 100-year flooding spots in the City’s stormwater masterplan completed a few months prior.

December 2022 to January of 2023. The City was impacted by a severe winter storm that caused the City’s Drainage Outfall 2 to the American River to be partially washed away, culverts under Sunrise Blvd were filled with debris leading to street flooding, and 173 city street signs were knocked down. Power outages occurred at all six City drainage pump stations. Backup power was used at Mills Tower and Bear Hollow stations, while the remaining four pumps stations were inoperable during the power outage due to no standby power. Debris removal was required post event to restore access to roadways.

Events prior to 2021

The City noted in the 2021 LHMP that severe weather, including heavy rains and storms, is an annual occurrence in the City.

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 Rancho Cordova. 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.

The Rancho Cordova 2024 Climate Action & Adaptation Plan noted that Sacramento County, inclusive of the City, is projected to experience an increase in average annual precipitation through the end of the century, and much of the precipitation is likely to occur during extreme precipitation events, which can lead to flood impacts throughout the City. According to Cal-Adapt, the historic average annual precipitation in Sacramento County is 18.3 inches. As shown in Figure E-29, the average annual precipitation in the county is projected to increase between roughly 2 and 4 inches by the end of the century (CEC 2021a).

Figure E-29 Changes in Average Annual Precipitation in Sacramento County

Annual Averages	Historic (1961-1990)	Near Term (2021–2050)	Midterm (2040–2070)	Long-Term (2070-2099)	
				Medium Emissions	High Emissions
Average Annual Precipitation	18.3	20.1	20.2	20.3	22.1
Percent Change from Historic Period	NA	+10%	+10%	+11%	+21%

Rancho Cordova 2024 Climate Action & Adaptation Plan

In general, California’s climate oscillates between extremely dry and extremely wet periods with annual precipitation varying widely from year to year. Like other California regions, the high year-to-year variability of precipitation in the City is severely affected by the meteorological phenomenon known as an atmospheric river, which accumulates moisture from tropical regions in the Pacific and moves water vapor towards California. In California, atmospheric rivers vary in intensity; some are beneficial for water supply and replenish snowpack that naturally melts during the summer, serving as water supply for people and agriculture, while others are responsible for widespread adverse impacts. Extreme precipitation from these atmospheric rivers in the future may prove to be more variable, volatile, and potentially more severe. Noting this, the City may experience changes in the frequency and/or intensity of flood events, though the exact frequency, intensity, and duration of these events will vary annually.

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 flood areas are shown on Table E-35 above. Heavy rains and storms can exceed the design capacity of the public storm drain network, which is designed for the "Nolte" design method as outlined in the Sacramento County Improvement Standards Drainage Section 9. Flooding in areas outside the modeled DFIRM floodplain will be likely when the storm intensity is greater than the 100-year storm because the standards allow for a one foot (1') depth of ponding above the street gutter flow line (Sac County Improvement Section 9-14 Overland Release, 2024).

In the past, when severe weather such as heavy rains and winds caused power outages, City storm drain pump stations lost power and neighborhoods adjacent to pump stations were at risk of flooding. In the 2024/2025 fiscal year, the City installed 4 new standby generators at storm drain pump stations that previously relied on a shared trailer-mounted, portable generator. This permanent standby power was funded through a FEMA HMGP grant and completed a mitigation action item from previous LHMPs.

Problems associated with the primary effects of severe weather include flooding, pavement deterioration, washouts, high water crossings, landslide/mudslides, debris flows, and downed trees. Most of the localized flooding in the City is generally limited to flooding within the street ROW and only has limited impact to private property. It is anticipated that a 100-year rainfall event would impact private drainage facilities to varying degrees in various parts of the City.

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 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 could 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 slow and steady growth. The City has 12 areas where growth is expected over the next five years. 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. The City has 12 areas where growth is expected over the next five years. Changes in land use in these and other 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.

Severe Weather: High Winds and Tornado

Likelihood of Future Occurrence–Likely

Vulnerability–Medium

Hazard Profile

High winds, as defined by the NWS glossary, are sustained wind speeds of 40 mph or greater lasting for 1 hour or longer, or winds of 58 mph or greater for any duration. High winds can cause significant property damage, threaten public safety, and have adverse economic impacts from business closures and power loss. High winds, when combined with high temperatures and low humidity can also lead to PSPS events (though rare in Sacramento County). Winds can also drive fires in and near the City.

Tornadoes are rotating columns of air marked by a funnel-shaped downward extension of a cumulonimbus cloud whirling at destructive speeds of up to 300 mph, usually accompanying a thunderstorm. Tornadoes form when cool, dry air sits on top of warm, moist air. Tornadoes are the most powerful storms that exist. Tornadoes, though rare, can affect areas of the City primarily during the rainy season in the late fall, winter, and early spring.

Location and Extent

The entire City is subject to significant, non-tornadic (straight-line), winds. Each area of the City is at risk to high winds. Magnitude of winds is measured often in speed and damages. These events are often part of a heavy rain and storm event but can occur outside of storms. The speed of onset of winds can be short, but accurate weather prediction mechanisms often let the public know of upcoming events. Duration of winds in California is often short, ranging from minutes to hours. The Beaufort scale is an empirical 12 category scale that relates wind speed to observed conditions at sea or on land. Its full name is the Beaufort Wind Force Scale. The Beaufort Scale was shown in Section 4.3.5 of the Base Plan.

Tornadoes, while rare, can occur at any location in the City. Prior to February 1, 2007, tornado intensity was measured by the Fujita (F) scale. This scale was revised and is now the Enhanced Fujita scale. Both scales are sets of wind estimates (not measurements) based on damage. The new scale (EF) provides more damage indicators (28) and associated degrees of damage, allowing for more detailed analysis and better correlation between damage and wind speed. It is also more precise because it considers the materials affected and the construction of structures damaged by a tornado. The F Scale and EF Scale are shown in Section 4.3.5 of the Base Plan.

Past Occurrences

Disaster Declarations

There have been no federal or state disaster declarations in the County for winds and tornadoes.

NCDC Events

The NCDC data recorded 109 high wind, 7 funnel cloud, and 15 tornado incidents for Sacramento County since 1950. Many of these wind events likely affected the City.

City of Rancho Cordova Past Occurrences

High winds are an annual occurrence in the City. The City noted that since high winds is a regional phenomenon, events that affected the County likely also affected the City. Wind impacts often occur at the same time as heavy rains and storms in the City. Tornadoes are more rare in the City and County. No impacts from tornadoes since the 2021 LHMP have occurred.

Climate Change and High Winds and Tornado

According to the 2024 CAS, while average annual rainfall may increase or decrease slightly, the intensity of individual thunderstorm events is likely to increase during the 21st century. This may bring stronger thunderstorm winds. The CAS does not discuss non-thunderstorm winds or tornadoes.

Vulnerability to Severe Weather: High Wind and Tornadoes

The City is subject to potentially destructive high winds and tornadoes. High winds are common throughout the area and can happen during most times of the entire year and outside of a severe storm event. Tornadoes are rare. High winds and tornadoes can be a significant public safety and economic concern. The whole of the City is at some measure of vulnerability to wind and tornadoes.

An assessment of a community's vulnerability to high winds begins with an understanding of local exposure to wind and tornadoes. 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.

High winds are common occurrences in the City throughout the entire year. Straight line winds are primarily a public safety and economic concern. Windstorms can cause damage to structures and power lines which in turn can cause power outages and create hazardous conditions for people. Debris flying from high wind events can shatter windows in structures and vehicles and can harm people that are not adequately sheltered. High winds can impact critical facilities and infrastructure and can lead to power outages. Traffic impacts can occur when traffic signals go down. High winds and tornadoes and down trees and cause damage to nearby structures. Wind can also drive wildfire flames, spreading wildfires quickly. During periods of high winds and dry vegetation, wildfire risk increases.

Assets at Risk

Assets at risk from winds and tornadoes 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 are at some vulnerability to high winds and tornadoes. Certain vulnerable populations are at the greatest risk to the effects of high winds and tornadoes. These include:

- The unsheltered.
- Citizens who reside in mobile homes.
- Citizens in buildings with no tornado shelter or below ground floors.
- The medically fragile experiencing power outages as a result of wind events.
- Those working or caught outdoors during a wind or tornado event.

Structures

All structures in the City have some measure of risk from high wind and tornadoes. Though rare, a tornado could cause damage to virtually all facilities in the tornado touchdown path. This would affect homes, businesses, commercial property, as well as government and critical facilities. During a wind or tornado event, power lines in the City can be damaged by falling trees caused by wind. Power outages can occur during high wind events. . High winds and tornadoes could cause sparks from electric wires and other sources, which could lead to wildfire ignition. Once ignited, high winds can also cause wildfires to rapidly spread and become out of control. High wind conditions can cause wildfires to move into more urban areas destroying structures and whole subdivisions, as seen in recent wildfire events in the West.

Critical Facilities and Infrastructure

Though most critical facilities are built to withstand winds, high wind speeds can still cause damage to critical facilities and infrastructure in the City. Though rare, a tornado could cause damage to virtually all facilities in the tornado touchdown path. Winds can cause power outages affecting system operations. Winds can lead to out of control wildfires, which can damage critical facilities and impact their abilities to perform their critical roles in the community.

Natural, Historic, and Cultural Resources

Natural resources, such as trees, are vulnerable to winds. Increased levee and streambank erosion can occur during periods of high water and high winds. High wave action during significant wind events can impact marsh lands and habitat areas. Soil erosion can also occur during high winds. Most all natural, historic, or cultural resources are at risk to tornadoes. Tornadoes can tear apart habitats, causing fragmentation across ecosystems and can damage and destroy historic structures and cultural resources.

Impacts from Severe Weather: High Wind and Tornado

Wind and tornadoes can cause damage to property and loss of life. While most tornado damage is caused by violent winds, the majority of injuries and deaths generally result from flying debris. Property damage can include damage to buildings, fallen trees, and power lines. Local industries may also be damaged or destroyed. Access roads and streets may be blocked by debris, delaying necessary emergency response. Winds can push automobiles off roads, damage roofs and structures, cause power outages, and cause secondary damage due to flying debris and hazardous trees. High winds can also contribute to the spread and intensity of wildfires. High winds during periods of high water can cause impacts to levees and streambanks from accelerated erosion. Climate change may affect this hazard and cause winds to increase in velocity and more tornadoes to affect the City.

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 wind conditions and associated impacts and vulnerability of the City. Climate change is not likely to affect future tornado conditions. This was discussed in greater detail in the Climate Change and Winds and Tornadoes 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 see slow and steady growth. The City has 12 areas where growth is expected over the next five years. Vulnerable populations could experience disproportional effects from this hazard and should be planned for as development of the City continues. 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, continued planning for future hazard conditions, and the location and nature of future high winds and tornado events.
- Land use planning should be proactive to address future hazard conditions. The City has 12 areas where growth is expected over the next five years. Building codes in the City ensure that new development is built to current building standards to withstand high winds, which should reduce the risk to future development in the City from high winds and tornadoes. With adherence to development standards, future losses to new development should be minimal. Changes in land use and increased development may amplify the impacts of high winds and tornadoes, as additional structures in the City increase the

number of buildings at risk to high winds and tornadoes; however, given the limited development planned in the next five years, any increase in vulnerability of the City should be limited.

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 with intersecting identities that reside within the City are considered can help make for a more resilient community. The City enforces the state building codes which includes standards for new development to minimize damage from windstorms. New and existing critical facilities and infrastructure should also consider adding backup power systems to limit impacts associated with power outages.

Wildfire (with smoke and air quality)

Likelihood of Future Occurrence–Highly Likely

Vulnerability–Extremely High

Hazard Profile

Wildland fire and the risk of a conflagration is an ongoing concern for the City of Rancho Cordova. 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

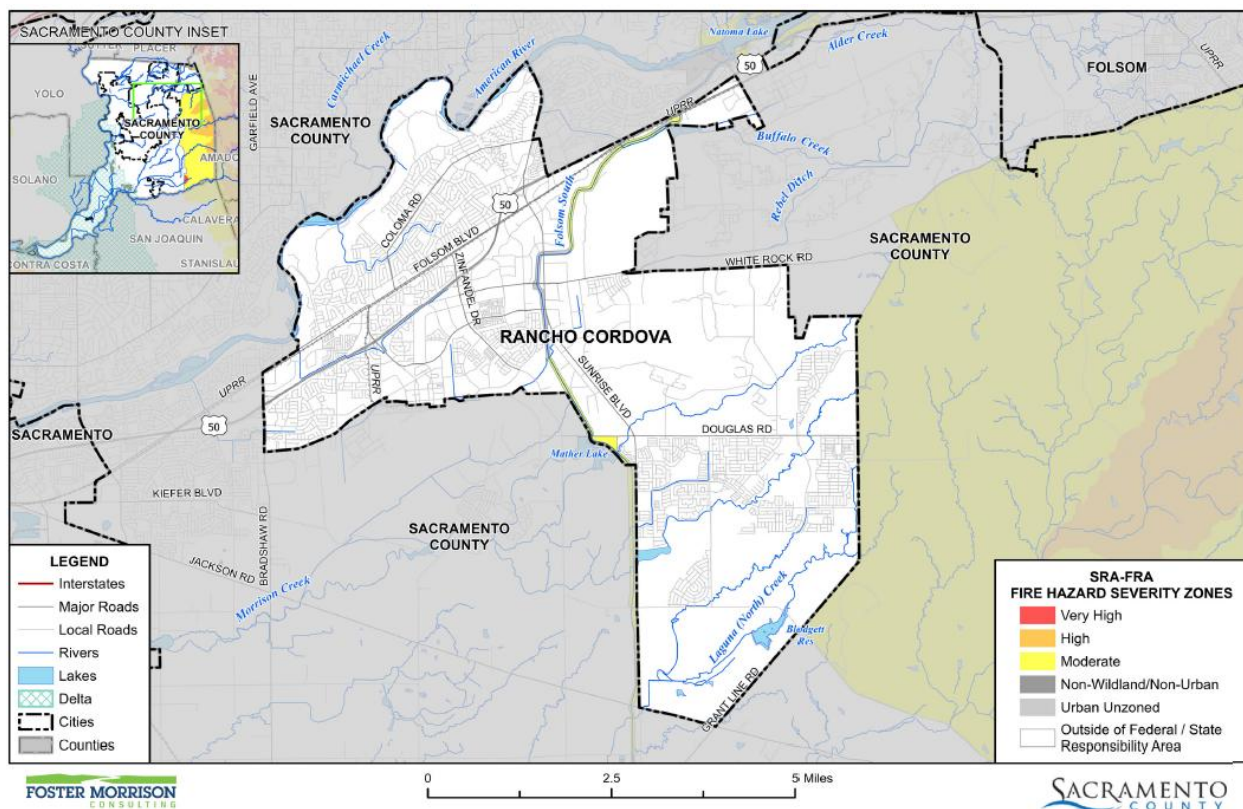
Smoke from wildfires is made up of gas and particulate matter, which can be easily observed in the air. Air quality standards have been established to protect human health with the pollutant referred to as PM2.5 which consists of particles 2.5 microns or less in diameter. These smaller sizes of particles 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 Rancho Cordova were created. Figure E-30 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 E-31 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 have a minor Moderate zone within the City; LRA FHSZs in the City are classified as Moderate and Non-Wildland.

Figure E-30 City of Rancho Cordova – CAL FIRE SRA/FRA Fire Hazard Severity Zones



Data Source: CAL FIRE (State Responsibility Area: FHSZSRA_23_3) April 2024.
CAL FIRE (Federal Responsibility Area: Draft c20fhszi06_1), September 2007,
Sacramento County, Cal-Atlas; Map Date: 1/30/2026.

SACRAMENTO COUNTY INSET

YOLO
SOLANO
CONTRA COSTA
STANISLAU
SACRAMENTO COUNTY
GAMFIELD AVE
PLACER
AMADOR
CALAVERA
SAN JOAQUIN

SACRAMENTO COUNTY

RANCHO CORDOVA

SACRAMENTO COUNTY

SACRAMENTO

LEGEND

- Interstates
- Major Roads
- Local Roads
- Rivers
- Lakes
- Delta
- Cities
- Counties

FIRE HAZARD SEVERITY ZONES

- Very High
- High
- Moderate
- Non-Wildland
- Outside of Local Responsibility Area

Scale: 0 2.5 5 Miles

FOSTER MORRISON CONSULTING

SACRAMENTO COUNTY

Data Source: CAL FIRE (Local Responsibility Area FHSZ 3/2025 FHSZLRA25_v1_All), Sacramento County, CalAtlas: Map Date: 1/30/2026.

Table E-37 City of Rancho Cordova – 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	184	1%	0.002	0.00003%	184	1%
Non-Wildland/Non-Urban	0	0%	0	0%	0	0%
Urban Unzoned	69	0.3%	4	0.1%	65	1%

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	19,948	99%	7,564	100%	12,384	98%
Total	20,201	100%	7,569	100%	12,633	100%

Source: CAL FIRE

Table E-38 City of Rancho Cordova – 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	11,202	55%	1,841	24%	9,361	74%
Non-Wildland	8,746	43%	5,724	76%	3,023	24%
Outside of Local Responsibility Area	253	1%	4	0.1%	249	2%
Total	20,201	100%	7,569	100%	12,633	100%

Source: CAL FIRE

Past Occurrences

Disaster Declaration History

There has been four state and three federal disaster declarations due to fire, as shown in Table E-39.

Table E-39 Sacramento County – State and Federal Wildfire Disaster Declarations 1950-2025

Disaster Type	State Declarations		Federal Declarations	
	Count	Years	Count	Years
Fire	4	1973, 2020 (twice), 2024	3	2020 (twice), 2025

Source: Cal OES, FEMA

NCDC Events

The NCDC has tracked 15 wildfire events in the County dating back to 1993.

City of Rancho Cordova Events

These sections first show historic hazard events occurring since the 2021 LHMPs and then those occurring prior to the 2021 LHMP.

Events since 2021 LHMP

While ignitions and smaller fires occur in the City on an annual basis, most are put out quickly with limited damage. No damaging or major fires in the City since the 2021 LHMP could be recalled. However, large fires occurring in nearby counties since 2021 have caused significant smoke and air quality issues in the City from these fires.

Events prior to 2021

In **June of 2020**, the Grant Fire affected the City of Rancho Cordova. A wind-stoked grass fire quickly charred more than 5,000, prompting evacuations and road closures in a sparsely populated area of east Sacramento County between Rancho Cordova and Folsom. The fire mostly burned grasslands, which allowed firefighters to extinguish the blaze before it got close to Rancho Cordova. One outbuilding was destroyed in the unincorporated County, and no injuries or other damages were reported. The City does not maintain a log of damages from wildfires.

Climate Change and Wildfire

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

Warmer temperatures can exacerbate drought conditions. Drought often kills plants and trees, which serve as fuel for wildfires. Warmer temperatures could increase the number of wildfires and pest outbreaks, such as the western pine beetle. Cal-Adapt's wildfire tool predicts the potential increase in the amount of burned areas for the year 2090-2099, as compared to recent (2010) conditions. This is shown in Section 4.3.17 of the Base Plan. Based on this model, Cal-Adapt predicts that wildfire risk in Sacramento County will increase moderately at the end of the century. However, wildfire models can vary depending on the parameters used. Cal-Adapt does not take landscape and fuel sources into account in their model. In all likelihood, in the Sacramento County Planning Area, precipitation patterns, high levels of heat, topography, and fuel load will determine the frequency and intensity of future wildfire.

The 2024 CAP noted issues with climate change and wildfire. Historically, attention to wildfire in California has mostly focused on the Sierra Nevada region and Southern California, but recent large and destructive wildfires in other portions of the state have rapidly shifted attention to the ongoing risks statewide. Climate change is exacerbating many of the factors that contribute to wildfire risk. Increased variability in precipitation may lead to wetter winters and increased vegetative growth in the spring. Potentially longer and hotter summer periods will lead to the drying of vegetative growth, which may ultimately result in a greater amount of fuel for wildfire ignition and spread.

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 wildfire. 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 wildfire exposure grows sharply under mid-century climate conditions, with the population exposed to high

burn probability increasing from 14% today to 34% in the future, and the number of people in the highest sensitivity category increasing five-fold.

The Rancho Cordova 2024 Climate Action & Adaptation Plan noted that the Sacramento Valley Region, inclusive of the City, is projected to continue experiencing increases in average annual area burned by wildfire, which can result in an array of cascading impacts on the City. Climate change is exacerbating many of the factors that contribute to wildfire risk. Increased variability in precipitation may lead to wetter winters and increased vegetative growth in the spring, and potentially longer and hotter summer periods will lead to the drying of vegetative growth, which may ultimately result in a greater amount of fuel for wildfire ignition and spread. This has already been seen across the State in recent years, with the area burned by wildfires increasing in parallel with rising air temperatures.

Vulnerability to Wildfire

Risk and vulnerability to the City from wildfire, and the potential for a conflagration, is of significant concern. Wildfires in the City, can occur from a variety of both natural and manmade causes. The City can be affected both by fires that start on or near City lands as well as those that start elsewhere and move into the City. In addition to burning large areas of land, air quality can be affected in the City by smoke from fires occurring inside the City as well as those from many miles away. As growth continues and populations increase in the City, the potential for wildfires will also increase.

The whole of the City is at some measure of vulnerability to wildfire. An assessment of a community's vulnerability to wildfire begins with an understanding of local exposure to wildfire. This is included in the Local Concerns section below. After that section, assets at risk are discussed.

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.

Local concerns with wildfire have remained substantially similar to 2021. Rancho Cordova General Plan Safety and Hazards Background Report (2025) included references to the City's 2021 LHMP Annex and the City's Climate Action and Adaptation Plan (CAAP) in an Urban and Wildfire section. According to the Safety and Hazards Background report, climate change is exacerbating many of the factors that contribute to wildfire risk. Increased variability in precipitation may lead to wetter winters and increased vegetative growth in the spring, and potentially longer and hotter summer periods will lead to the drying of vegetative growth, which may ultimately result in a greater amount of fuel for wildfire ignition and spread.

As recently seen in other more urban areas of the West, the risk of conflagration is an increasing concern in the City, with structures adding to the fuel source feeding and spreading wildfires.

Increased weed abatement and vegetation clearing activities utilizing the Weed Control ordinance can help reduce risk. The City's Municipal Code Chapter 17.12 requires that all dry grass, brush, vines, or other dry vegetation must be cleared within at least 30 feet of all structures, combustible fences, vehicles, and combustible storage areas. Sacramento Metro Fire District's Fire Prevention Standard for Weed Abatement

Requirements and Inspections is also designed to prevent fire hazards by controlling vegetative growth through voluntary compliance and enforcement.

Assets at Risk

Assets at risk from wildfire 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 are vulnerable to wildfire. Certain vulnerable populations are at greater risk to the effects of wildfire as well as smoke and air quality issues that wildfires bring. Vulnerable populations include:

- Unhoused
- Infants and children under age five and their caregivers
- Senior (65 and older)
- Individuals with disabilities
- Individuals' dependent on medical equipment
- Individuals who exercise, recreate, or work outdoors
- Individuals with impaired mobility

To further evaluate the impact to the residential population within the City, the CAL FIRE FHSZ dataset was overlayed on the parcel layer. Those residential parcels that intersect the FHSZs were counted and multiplied by the 2023 Census Bureau average household factors for the City of Rancho Cordova – 2.81. According to this analysis, there is a total population of 0 residents of the City of Rancho Cordova falling within the Moderate or higher SRA/FRA. There are 13,303 residents at risk for the Moderate zone of the LRA FHSZs. This is shown in Table E-40 and Table E-41, respectively.

Table E-40 City of Rancho Cordova – Improved Residential Parcels and Population by CAL FIRE SRA/FRA Fire Hazard Severity Zone

Jurisdiction	Very High		High		Moderate	
	Improved Residential Parcels	Population at Risk	Improved Residential Parcels	Population at Risk	Improved Residential Parcels	Population at Risk
Rancho Cordova	0	0	0	0	0	0

Source: CAL FIRE, 2025 Sacramento County Parcel/Assessor Data, 2020 US Census Bureau Average Household Size – City of Rancho Cordova (2.81)

Table E-41 City of Rancho Cordova – Improved Residential Parcels and Population by CAL FIRE LRA Fire Hazard Severity Zone

Jurisdiction	Very High		High		Moderate	
	Improved Residential Parcels	Population at Risk	Improved Residential Parcels	Population at Risk	Improved Residential Parcels	Population at Risk
Rancho Cordova	0	0	0	0	4,619	13,303

Source: CAL FIRE, 2025 Sacramento County Parcel/Assessor Data, 2020 US Census Bureau Average Household Size –City of Rancho Cordova (2.81)

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 are used to serve (portions) of this population.

Structures

All structures in the City have some risk to wildfire. GIS was used to determine the possible impacts of wildfire within the City of Rancho Cordova. The methodology described in Section 4.3.15 of the Base Plan was followed in determining structures and values at risk in both the CAL FIRE’s SRA/FRA and LRA Fire Hazard Severity Zone layers. Analysis results for the SRA/FRA in the City of Rancho Cordova are shown in Table E-42 and for the LRA in the City of Rancho Cordova are shown in Table E-43, which summarizes total parcel counts, improved parcel counts and their structure values by FHSZs.

Table E-42 City of Rancho Cordova – Count and Value of Parcels and Structures by CAL FIRE SRA/FRA Fire Hazard Severity Zones by Property Use

Fire Hazard Severity Zone	Total Parcel Count	Improved Parcel Count	Total Land Value	Structure Value	Estimated Contents Value	Total Value
Very High						
–	–	–	–	–	–	–
High						
–	–	–	–	–	–	–
Moderate						
Miscellaneous	5	0	\$0	\$0	\$0	\$0
Vacant	1	0	\$50	\$0	\$0	\$50
Moderate Total	6	0	\$50	\$0	\$0	\$50

Source: CAL FIRE, Sacramento County 2025 Parcel/Assessor Data

Table E-43 City of Rancho Cordova – Count and Value of Parcels and Structures by CAL FIRE LRA Fire Hazard Severity Zones by Property Use

Fire Hazard Severity Zone	Total Parcel Count	Improved Parcel Count	Total Land Value	Structure Value	Estimated Contents Value	Total Value
Very High						
–	–	–	–	–	–	–
High						
–	–	–	–	–	–	–
Moderate						
Agricultural	23	3	\$7,507,713	\$155,361	\$155,361	\$7,818,435
Industrial	195	184	\$136,472,850	\$442,012,441	\$663,018,662	\$1,241,503,953

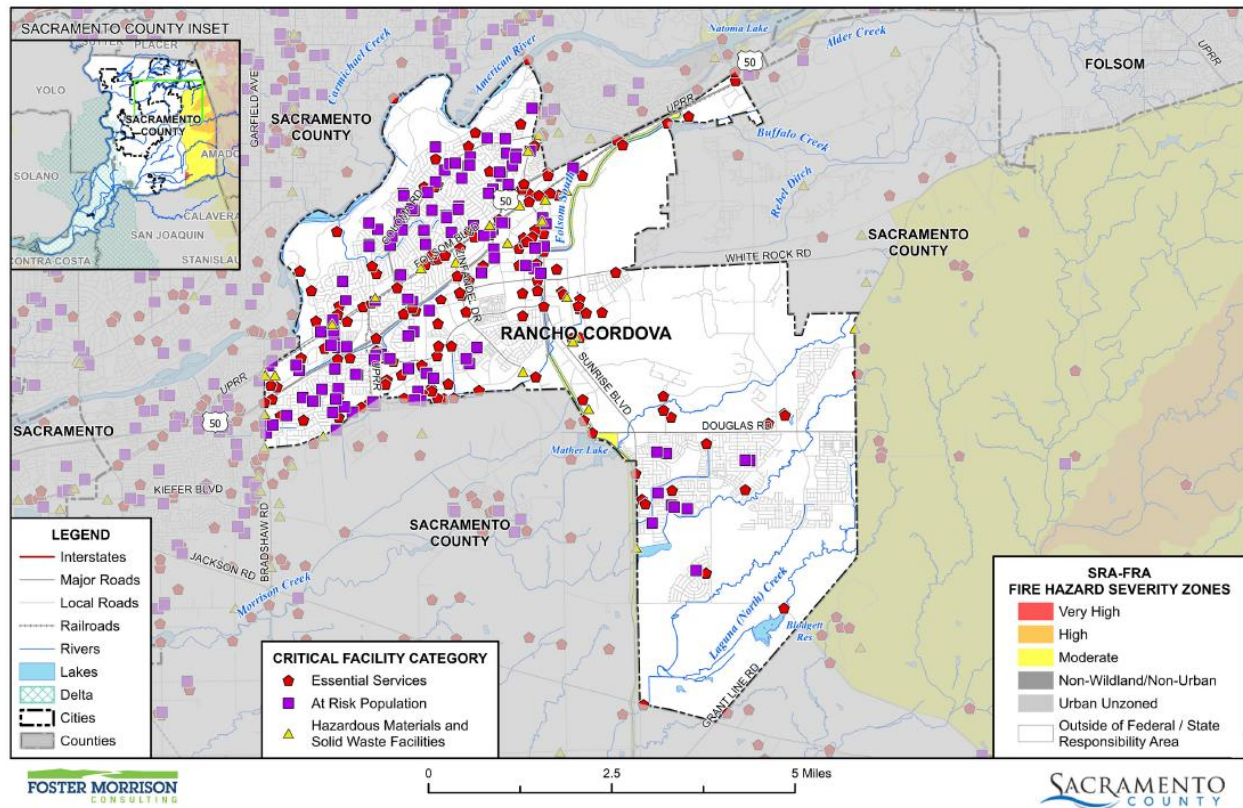
Fire Hazard Severity Zone	Total Parcel Count	Improved Parcel Count	Total Land Value	Structure Value	Estimated Contents Value	Total Value
Miscellaneous	405	2	\$429,632	\$1,049,379	\$1,049,379	\$2,528,390
Office	7	5	\$14,969,259	\$53,701,102	\$53,701,102	\$122,371,463
Public / Utilities	4	0	\$10	\$0	\$0	\$10
Residential	4,785	4,619	\$696,278,414	\$1,864,202,531	\$932,101,266	\$3,492,582,211
Retail / Commercial	20	20	\$31,617,142	\$62,464,994	\$62,464,994	\$156,547,130
Unknown	2	0	\$0	\$0	\$0	\$0
Vacant	2,060	23	\$372,512,738	\$8,503,306	\$0	\$381,016,044
Moderate Total	7,501	4,856	\$1,259,787,758	\$2,432,089,114	\$1,712,490,763	\$5,404,367,635

Source: CAL FIRE, Sacramento County 2025 Parcel/Assessor Data

Critical Facilities and Infrastructure

Wildfire presents a threat to critical facilities and infrastructure. The following analysis discusses critical facilities and infrastructure. A separate analysis was performed on the critical facility inventory in the City to determine which critical facilities fall into each fire hazard severity zone. Using GIS, the SRA/FRA and LRA fire hazard severity zone layers were overlaid on the critical facility GIS layer. The City has a small area within the SRA/FRA FHSZ and this is shown in Figure E-32. The LRA FHSZ is shown on Figure E-33. Table E-44 details which critical facilities fall in the SRA/FRA FHSZ and Table E-45 details which critical facilities fall in which LRA FHSZ. The City falls into the Moderate and Non-Wildland FHSZ.

Figure E-32 City of Rancho Cordova – Critical Facilities in SRA/FRA Fire Hazard Severity Zones



Data Source: CAL FIRE (State Responsibility Area: FHSZSRA_23_3) April 2024,
CAL FIRE (Federal Responsibility Area: Draft c20fhszl06_1), September 2007,
Sacramento County, Cal-Atlas; Map Date: 4/20/2026.

Table E-44 City of Rancho Cordova – Critical Facilities in SRA/FRA Fire Hazard Severity Zones by Category and Type

Fire Hazard Severity Zones	Critical Facility Category	Facility Count
Moderate	Essential Services Facilities	3
	Total	3
Urban Unzoned	Essential Services Facilities	2
	Total	2
Rancho Cordova Total		5

Source: CAL FIRE, Sacramento County GIS

Figure E-33 City of Rancho Cordova – Critical Facilities in LRA Fire Hazard Severity Zones

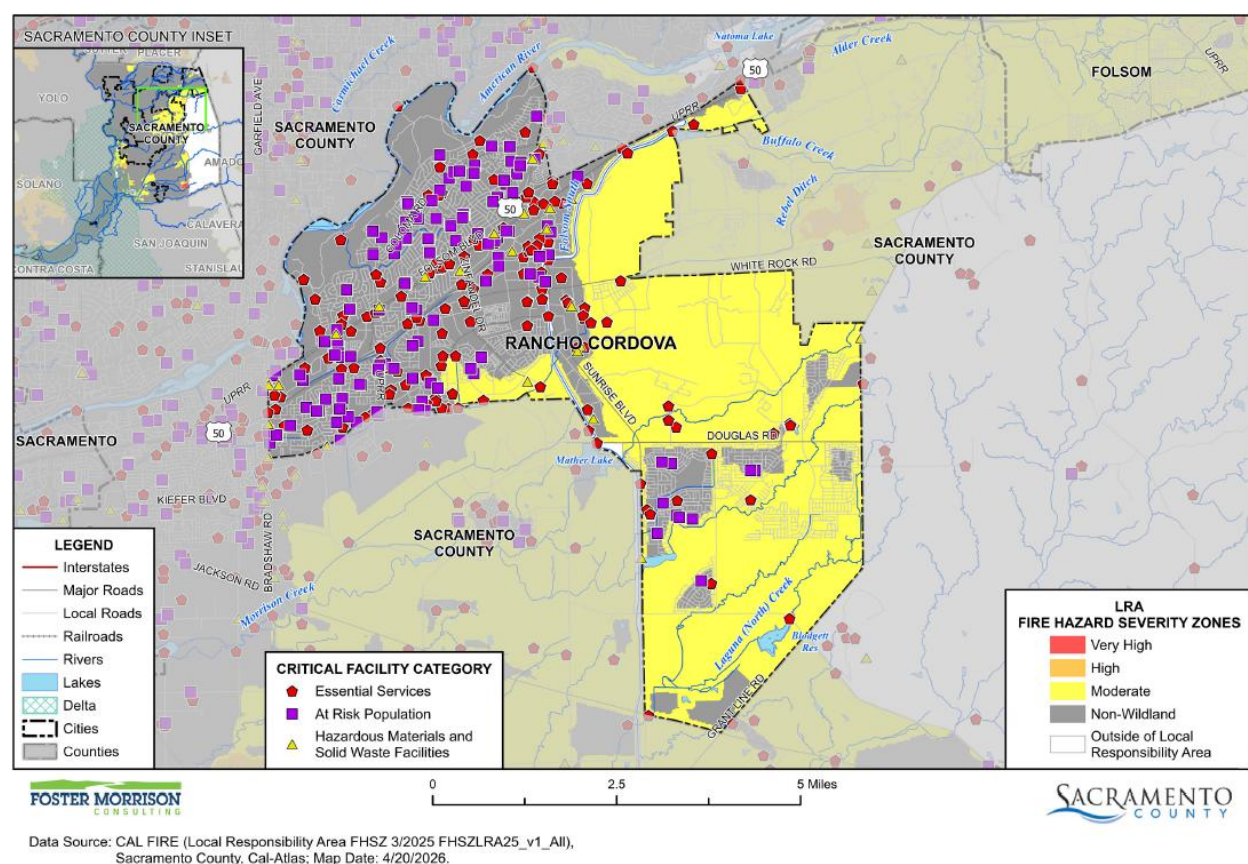


Table E-45 City of Rancho Cordova – Critical Facilities in LRA Fire Hazard Severity Zones by Category and Type

Fire Hazard Severity Zones	Critical Facility Category	Facility Count
Moderate	Essential Services Facilities	28
	At Risk Population Facilities	2
	Hazardous Materials and Solid Waste Facilities	1
	Total	31
Non-Wildland	Essential Services Facilities	188
	At Risk Population Facilities	150
	Hazardous Materials and Solid Waste Facilities	19
	Total	357
Rancho Cordova Total		388

Source: CAL FIRE, City of Rancho Cordova

Natural, Historic, and Cultural Resources

Natural, historic, and cultural resources located within areas at risk to wildfire would be vulnerable. Should a wildfire occur in the City, the impacts to natural, historic and cultural resources could be extensive and

include air pollution, contamination from water runoff containing toxic products, and other environmental discharges or releases from burned materials affecting soils, habitat areas, wildlife, and aquatic resources. Historic and cultural resources can be damaged or destroyed and are often more vulnerable due to their older age, construction type, and lack of fire prevention infrastructure such as sprinklers.

Impacts from Wildfire

Potential impacts from wildfire include loss of life and injuries; damage to structures and other improvements, impacts to natural and cultural resources and open space areas, and loss of recreational opportunities. Out of control wildfires can have catastrophic impacts. Wildfires can cause short-term and long-term disruption to the City. Fires can have devastating effects on watersheds through loss of vegetation and soil erosion, which may impact the City by changing runoff patterns, increasing sedimentation, reducing natural and reservoir water storage capacity, and degrading water quality. Fires can also affect air quality in the City; smoke and air pollution from wildfires can be a severe health hazard. Smoke impacts may come from wildfires outside the City, as well as from within.

Although the physical damages and casualties arising from wildland-urban interface or conflagration fires may be severe, it is important to recognize that they also cause significant economic impacts by resulting in a loss of function of buildings and infrastructure. Economic impacts of loss of transportation and utility services may include traffic delays/detours from road and bridge closures and loss of electric power, potable water, and wastewater services. Schools and businesses can be forced to close for extended periods of time. In addition, catastrophic wildfire can create favorable conditions for other hazards such as flooding, landslides, and erosion during the rainy season.

The impacts of a fire are felt long after the fire is extinguished. In addition to the loss of property in fires, the loss in vegetation and changes in surface soils alters the environment. When supporting vegetation is burned, hillsides become destabilized and prone to erosion. The burnt surface soils are harder and absorb less water. When winter rains come, this leads to increased runoff, erosion, and landslides in hilly areas.

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

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 above), changes in population patterns (migration, density, or the makeup of socially vulnerable populations), and changes in land use and development. These are discussed 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 Rancho Cordova include the following:

- Climate change is likely to exacerbate future wildfire conditions and associated impacts and vulnerability of the City to wildfire. This was discussed in greater detail in the Climate Change and Wildfire section of the Hazard Profile above.
- The City is expected to see slow and steady growth. The City has 12 areas where growth is expected over the next five years. Additional population growth would likely bring continued diversity to the City. Vulnerable population groups could face disproportionate effects from wildfire 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, magnitude, and severity of future wildfire events. However, wildfire smoke and air quality from regional events will likely continue to contribute to an increase in vulnerability to City populations.
- 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 wildfire risk may put additional development at risk. The City has 12 areas where growth is expected over the next five years. 8 of these areas fall in the Moderate FHSZ which may increase risk. However, City building codes are in effect to reduce this risk and should be updated as necessary to continue to address future wildfire conditions. Specifically, with the release of the new 2025 LRA mapping for Sacramento County, wildfire building codes should be evaluated and updated as required to include enhanced measures to reduce wildfire impacts on new construction, and including the formal adoption of the new LRA maps. 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, magnitude, and severity of future wildfire events.

Future Development

Additional growth and development within moderate or higher fire hazard severity zones in the City would normally place additional values at risk to wildfire. . City building codes are in effect and should continue to be updated as appropriate to reduce future impacts. Specifically, the new 2025 LRA mapping and associated requirements should be formally adopted by the City.

Future development areas and their vulnerability to wildfire are discussed further in the GIS analysis below.

GIS Analysis

The City provided 12 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 LRA fire hazard severity zone. No facilities fell in the SRA/FRA fire hazard severity zones; as such, no maps or tabular analysis is presented for the SRA/FRA. Figure E-34 shows the locations of the future development area overlayed on the LRA fire hazard severity zones. As shown in Table E-46, eight future development areas fall within the Moderate FHSZ.

Figure E-34 City of Rancho Cordova – Future Development Areas in LRA Fire Hazard Severity Zones

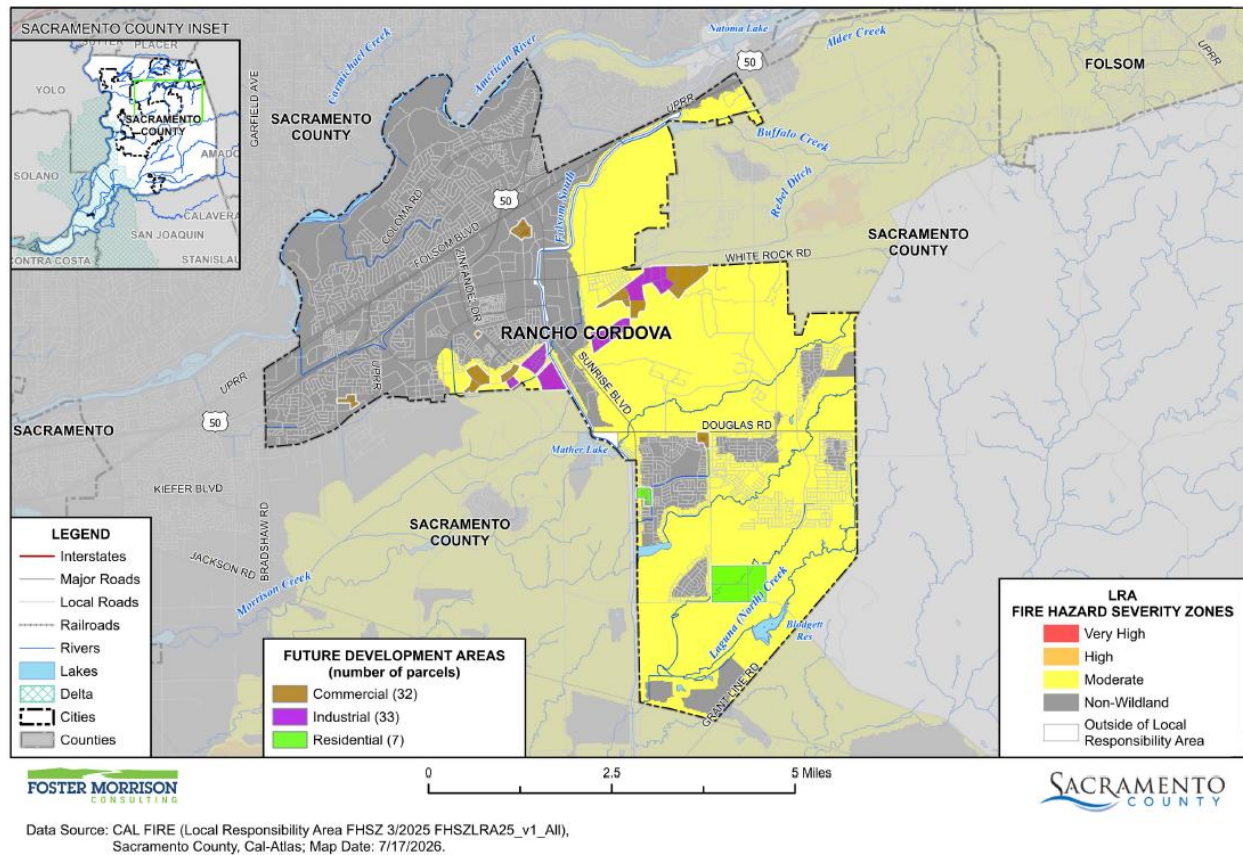


Table E-46 City of Rancho Cordova – Future Development by Development Type and Status with Parcels and Acres in LRA Fire Hazard Severity Zones

Fire Hazard Severity Zone / Future Development Type and Status	Site/Location Name	Total Parcel Count	Improved Parcel Count	Unimproved Parcel Count	Total Acres	Total Improved Acres	Total Unimproved Acres
Moderate							
Residential							
Construction	Asteria Flats Apartments	1	0	1	11.1	0.0	11.1

Fire Hazard Severity Zone / Future Development Type and Status	Site/Location Name	Total Parcel Count	Improved Parcel Count	Unimproved Parcel Count	Total Acres	Total Improved Acres	Total Unimproved Acres
	Steelridge	1	0	1	78.0	0.0	78.0
	Construction Total	2	0	2	89.1	0.0	89.1
Proposed	Steelridge	2	0	2	158.8	0.0	158.8
	Proposed Total	2	0	2	158.8	0.0	158.8
Residential Total		4	0	4	247.9	0.0	247.9
Commercial							
Proposed	12093 Cobble Brook DR	1	0	1	14.6	0.0	14.6
	Rio Del Oro Specific Plan Area	11	0	11	145.7	0.0	145.7
	Zinfandel Special Planning Area	10	0	10	56.4	0.0	56.4
	Proposed Total	22	0	22	216.7	0.0	216.7
Commercial Total		22	0	22	216.7	0.0	216.7
Industrial							
Proposed	Rio Del Oro Specific Plan Area	13	0	13	163.2	0.0	163.2
	Zinfandel Special Planning Area	20	0	20	105.5	0.0	105.5
	Proposed Total	33	0	33	268.7	0.0	268.7
Industrial Total		33	0	33	268.7	0.0	268.7
Moderate Total		59	0	59	733.4	0.0	733.4

Source: CAL FIRE, City of Rancho Cordova

E.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.

E.5.1. Regulatory Mitigation Capabilities

Table E-47 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 Rancho Cordova.

Table E-47 City of Rancho Cordova'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	The CIP does identify hazards and projects to include in the mitigation actions to include in the mitigation strategy. The Plan can be used to implement mitigation actions. Updated in 2025.
Climate Change Adaptation Plan	Y	The Climate Change Adaptation Plan does identify hazards and mitigation actions. It was adopted in 2024.
Community Wildfire Protection Plan	N	
Comprehensive/Master Plan	Y	The General Plan does identify and address hazards in the Safety element with Goals and Policies. The General Plan does not identify projects to include in the mitigation strategy. The General Plan sets Goals and Policies in a broad sense. A more appropriate place for implementation of mitigation strategy/action items is the Zoning Ordinance. General Plan was adopted in 2006. A General plan 2050 update is currently in progress and most of the existing conditions reports were completed in 2025: https://www.yourcityrc2050.org/documents
Continuity of Operations Plan	N	
Economic Development Plan	Y	In 2024, the City adopted a three-year Economic Development Strategic Plan, to be implemented from 2025 until 2028. The Economic Development Strategic Plan does not address hazards. The Economic Development Strategic Plan EDSP aims to foster sustainable growth and support an inclusive economic environment that meets both current and future needs of Rancho Cordova's residents and businesses.
Land Use Plan	Y	As part of the General Plan 2050 Update, the City completed a Land Use Alternatives Report in February 2026. The City Council approved a land use plan in July 2026.
Local Emergency Operations Plan	Y	The local EOP includes a list of hazard, but does not identify mitigation actions. It was last updated in 2013.
Stormwater Management Plan	Y	The City adopted a 2021 Stormwater Capital Improvement Master Plan which primarily addresses flood hazards and is used to plan structural and maintenance improvements in the storm drain system. All projects within the City are required to follow the 2018 Sacramento Stormwater Quality Design Manual which incorporates Low Impact Development and hydromodification mitigation actions.
Transportation Plan	Y	

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	Ordinance is an effective measure and is enforced.
Building code	Y	2025 California Building Code as amended by municipal code
Flood insurance rate maps	Y	Ordinance is an effective measure and is enforced. 2018
Floodplain ordinance	Y	Ordinance is an effective measure and is enforced. 2023
Natural hazard-specific ordinance (stormwater, steep slope, wildfire)	Y	Ordinance is an effective measure and is enforced.
Subdivision ordinance	Y	Ordinance is an effective measure and is enforced. 2013
Zoning ordinance	Y	Ordinance is an effective measure and is enforced. 2013
Other		
How can these capabilities be expanded and improved to reduce risk?		
The City will continue to revise ordinances and enhance enforcement policies as needed to continue to reduce risks. The City's Director of Neighborhood Services will be leading a 2026 update of the 2013 Local EOP.		

Source: City of Rancho Cordova

E.5.2. Administrative/Technical Mitigation Capabilities

Table E-48 identifies the City department(s) responsible for activities related to mitigation and loss prevention in the City of Rancho Cordova.

Table E-48 City of Rancho Cordova'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	Staffing is adequate and staff are trained. Coordination occurs between agencies.
Civil Engineer, including dam and levee safety	Y	Staffing is adequate and staff are trained. Coordination occurs between agencies.
Community Planner	Y	Staffing is adequate and staff are trained. Coordination occurs between agencies.
Emergency Manager	Y	Staffing is adequate and staff are trained. Coordination occurs between agencies.
Floodplain Administrator	Y	Staffing is adequate and staff are trained. Coordination occurs between agencies.

GIS Coordinator	Y	Staffing is adequate and staff are trained. Coordination occurs between agencies.
Planning Commission	Y	The City Council voted to reinstate the Planning Commission in November 2021. The Planning Commission (consisting of 7 appointed members) works with the City's Planning Division staff.
Other		
Technical	Y/N	Has capability been used to assess/mitigate risk in the past?
Grant writing	Y	Yes, in 2021 City staff submitted two projects to FEMA's Hazard Mitigation Grant Program and were successfully awarded funding for purchase of permanent standby pump station generators and for design of a detention basin to mitigate localized flooding on Sunrise Blvd, a major arterial.
Hazard data and information	Y	Yes, hazard data such as flooding information is used during project approvals.
GIS analysis	Y	GIS analysis is routinely used during the entitlements stage to identify localized flooding and other hazards that affect Conditions of Approval on projects.
Mutual aid agreements	Y	The City contracts to remove debris around the City in the event of flooding.
Other		
How can these capabilities be expanded and improved to reduce risk?		
Hazard information from the LHMP can be incorporated into activation exercises after the City's Local Emergency Operations Plan is updated. Additionally, GIS analysis will be used to formalize and publicize key evacuation routes for various hazards in coordination with other local and regional agencies.		

Source: City of Rancho Cordova

E.5.3. Fiscal Mitigation Capabilities

Table E-49 identifies financial tools or resources that the City could potentially use to help fund mitigation activities.

Table E-49 City of Rancho Cordova'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	Yes. It funds drainage improvements to reduce flooding.
Community Development Block Grant	Y	Yes. Sidewalk repairs in CDBG locations could incorporate drainage improvements when feasible.
Federal funding programs (non-FEMA)	Y	City staff apply for funding based on project fit.

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?
Fees for water, sewer, gas, or electric services	N	
Impact fees for new development	Y	Yes, to fund storm water infrastructure projects
State funding programs	Y	Yes, to fund drainage improvements to reduce flooding.
Stormwater utility fee	Y	
Other		
How can these capabilities be expanded and improved to reduce risk?		
The City will explore opportunities to apply for grant funding to help fund flood control projects and reduce flooding risk.		

Source: City of Rancho Cordova

E.5.4. Mitigation Education, Outreach, and Partnerships

Table E-50 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.

Table E-50 City of Rancho Cordova's Mitigation Education, Outreach, and Partnerships

Program/Organization	In Place Y/N	How widespread are each of these in your community?
Community newsletters	Y	The city sends approximately 15,000 subscribers an email newsletter with upcoming events.
Hazard awareness campaigns (such as Firewise, Storm Ready, Severe Weather Awareness Week, school programs, public events)	N	
Local news	N	
Organizations that interact with underserved and vulnerable communities	Y	The City works with Sacramento SPLASH and other outreach consultants to help children understand and value their natural world.
Social media	Y	During the rainy season, the City Communications team posts social media updates regarding storm preparedness.
How can these capabilities be expanded and improved to reduce risk?		
The City will explore opportunities for public outreach and collaboration with other regional agencies on outreach and hazard awareness campaigns.		

Source: City of Rancho Cordova

E.5.5. Other Mitigation Efforts

The City has many other completed or ongoing mitigation projects/efforts that include the following:

- The City has entered into an agreement with the County of Sacramento regarding regional disaster debris and hazardous waste removal after a disaster is declared.
- The City completed working on a Stormwater Capital Improvement Program Master Plan that identified a number of flood control projects that need to be implemented Citywide to reduce street flooding and reduce flooding risk.
- The City was funded for the purchase of 4 permanent standby generators by the FEMA HMGP. This was completed in 2025.
- The Monier Circle Detention Basin Project that received phased funding from the HMGP. Phase 1 deliverables were submitted to FEMA in 2023. The City is still waiting for notification to proceed from FEMA on Phase 2 construction. These grants are associated with DR-4558.

E.6 Mitigation Strategy

E.6.1. Mitigation Goals and Objectives

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

E.6.2. NFIP Mitigation Strategy

The City of Rancho Cordova joined the National Flood Insurance Program (NFIP) on September 15, 2004. As a participant of the NFIP, the City of Rancho Cordova 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 Rancho Cordova will continue to comply with the requirements of the NFIP in the future.

In addition, the City of Rancho Cordova 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 Rancho Cordova as for Sacramento County since participation at the County level includes all local jurisdictions.

The City of Rancho Cordova Public Works 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 Public Works Department provides information about their 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 Rancho Cordova is not a current participant in the CRS program.

More information about the floodplain administration in the City of Rancho Cordova can be found in Table E-51.

Table E-51 City of Rancho Cordova 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)?	The City of Rancho Cordova public works director is designated the floodplain administrator. The public works director serves roles other than FPA.
Is the Community FPA or NFIP Coordinator a Certified Floodplain Manager?	The City of Rancho Cordova public works director is designated the floodplain administrator. According to Rancho Cordova Municipal Code 16.96.210, the floodplain administrator shall have the authority to delegate performance of certain duties to other employees. A licensed professional engineer (civil) from the drainage division is a Certified Floodplain Manager.
Is floodplain management an auxiliary function?	No. Floodplain management is integrated into the development process.
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Regulate development in the floodplain to reduce impacts to life and property. Provide permit review, GIS updates, education to residents or project developers.
What are the barriers to running an effective NFIP program in the community, if any?	None
Insurance Summary	
How many NFIP policies are in the community? What is the total premium and coverage?	101 active policies for all flood zones The total premium is \$69,437 and \$32,714,000 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?	There have been 0 claims paid in the community and thus no total amount for paid claims or substantial damages.
How many structures (residential and non-residential) are exposed to flood risk within the community?	49 in the 1% Annual Chance 2,009 in the 0.2% Annual Chance
Are there Repetitive Loss (RL) and Severe Repetitive Loss Properties (SRL) structures in the community?	0 RL 0SRL
Describe any areas of flood risk with limited NFIP policy coverage	Based on FEMA's CIS data, there are 49 improved parcels located in the SFHA. Only 9 of these or 18.4% carry flood insurance which leaves those without flood insurance extremely vulnerable in this high risk flood zone.
How does the community teach property owners or other stakeholders about the importance of flood insurance?	The City website includes a section on Storm Preparedness that lists flood insurance and talking with an insurance agent about NFIP as a way to be storm ready.

NFIP Topic	Comments
What digital sources (like the FEMA Map Service Center, National Flood Hazard Layer) or non-regulatory tools does the community use?	Public Works staff routinely use the FEMA Map Service Center products in flood hazard determination letters to property owners or lenders. The National Flood Hazard Layer is integrated into working layers of the City GIS system and automatic holds for floodplain review are placed on building permits located within Special Flood Hazard Layers.
Compliance History	
Is the community in good standing with the NFIP?	Yes
Are there any outstanding compliance issues (i.e., current violations)?	There is one current structure violation in the special flood hazard area.
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?	Building Department, Chief Building Official. Inspectors are trained in the Structural Assessment Program in the event of hazards or disasters. In general, notice of violation is issued (as first contact for case management), housing and dangerous buildings notice and order (if unoccupiable, places a cloud on the title, case evidence for high urgency, fines and fees). Property owner is required to submit plans and permits to complete the damage assessed.
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	November 2022 - October 2023
Is a CAV or CAC scheduled or needed?	No
Regulation	
When did the community enter the NFIP?	September 15 2001
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?	Yes. The City's floodplain management regulations were updated and adopted because of the 2022-2023 CAC. The current local regulations were adopted in September 2023.
Has the community adopted the latest effective FIRM? Date adopted?	Yes. June 4, 2018.
How does the community enforce local floodplain regulations and monitor compliance?	In a project's discretionary phase, the local floodplain regulations are added as a condition of approval monitored by Public Works.
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Exceed FEMA minimum requirements. The City's floodplain management ordinance incorporates the freeboard requirements in the current Sacramento County Improvement Standards requiring 1.2 ft of freeboard to the certified pad elevation and 1.5 ft of freeboard to the finished flood elevation
How are Letters of Map Change (LOMCs) tracked and compiled?	The drainage division has a central LOMC repository and continues to access the FEMA Map Service Center for applicable LOMCs.

NFIP Topic	Comments
Provide an explanation of the permitting process.	The Planning, Building, Public Works Department, and Sacramento Metro Fire Department issues permits to build based on zoning codes, and building codes, and floodplain ordinances.
Community Rating System	
Does the community participate in CRS? If so, what is the community's CRS Class Ranking?	No
What categories and activities provide CRS points and how can the class be improved?	The City routinely performs many activities which may provide CRS points. Staff will consider documenting activities and applying for future participation in the CRS.
Does the plan include CRS planning requirements?	Yes

Source: City of Rancho Cordova, FEMA CIS, FEMA PIVOT Database

E.6.3. Mitigation Actions

The Planning Team for the City of Rancho Cordova 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
- Dam Failure
- Drought & Water Shortage (w/tree mortality)
- Flood: 1%/0.5%/0.2% annual chance
- Flood: Localized Stormwater
- Severe Weather: Extreme Heat
- Severe Weather: Heavy Rains and Storms (Hail, Lightning, Wind)
- Severe Weather: High Winds and Tornadoes
- Wildfire (with smoke and air quality)

Low priority hazards for mitigation planning include:

- Aquatic Nuisance Species (plant/animal)
- Earthquake (w/subhazards)
- Landslide, Mudslide, Debris Flow
- Levee Failure
- Sea Level Rise
- Severe Weather: Extreme Cold and Freeze
- Subsidence

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 E-52. Details of the actions can be found below the table.

Table E-52 City of Rancho Cordova 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	X	Prevention
Action 2. Enhance Public Education and Awareness of Natural Hazards and Public Understanding of Disaster Preparedness	Previous Action	X	X	X	Prevention Public Information
Action 3. Sunrise Blvd Widening Kiefer to Jackson	Previous Action	X	X		Emergency Services
Action 4. Roundabout Implementation	Previous Action	X	X		Emergency Services
Action 5. Disaster Training for Staff	Previous Action	X	X		Emergency Services
Action 6. Update/Maintain Emergency Operations Plans (EOPs)	Previous Action	X	X	X	Emergency Services
Action 7. Developing and maintaining a database to track community vulnerability	Previous Action	X	X	X	Prevention Emergency Services
Action 8. Landscape Ordinance and Model Water Efficient Landscape Ordinance Implementation	Previous Action	X	X		Prevention Property Protection Natural Resource Protection

Action Title	New Action/ Previous Action	Address Current Development	Address Future Development	Continued NFIP Compliance	Mitigation Type
Action 9. Porous Pavement and Vegetative Buffers	Previous Action	X	X		Prevention Property Protection Natural Resource Protection
Action 10. Channel Vegetation Management, Debris Removal, Erosion Control Projects	Previous Action	X	X	X	Prevention Property Protection Natural Resource Protection
Action 11. Implement Projects in the Stormwater Capital Improvement Program Master Plan	Previous Action	X	X	X	Prevention Property Protection Structural Projects Natural Resource Protection
Action 12. Sunrise Blvd & Monier Circle Drainage Improvements	Previous Action	X	X	X	Prevention Property Protection Structural Projects Natural Resource Protection
Action 13. Preparedness for Evacuations for Various Acute Hazards	Previous Action	X	X	X	Emergency Services
Action 14. Wildfire Weed Reduction and Resiliency	Previous Action	X	X		Prevention Property Protection Natural Resource Protection
Action 15. Implement Climate Action and Adaptation Plan Strategy Adaptation-1: Improve resilience to increased temperature and extreme heat	New Action	X	X		Prevention Property Protection Natural Resource Protection
Action 16. Inspect, Replace, or Concrete-Line Corrugated Metal Pipes	New Action	X	X	X	Prevention Property Protection Structural Projects Natural Resource Protection
Action 17. Levee sensitivity analysis	New Action	X	X	X	Prevention Property Protection
Action 18. Implement projects in the Rancho Cordova Active Transportation Plan (2026)	New Action	X	X	X	Prevention Structural Projects Emergency Services
Action 19. Replace Undersized Drainage Laterals to Meet Current Drainage Standards	New Action	X	X	X	Prevention Property Protection Structural Projects Natural Resource Protection
Action 20. Add Stream or Flow Gauges at Critical Creek Locations Citywide	New Action	X	X	X	Prevention Property Protection

Action Title	New Action/ Previous Action	Address Current Development	Address Future Development	Continued NFIP Compliance	Mitigation Type
Action 21. White Rock Underground Detention Project	New Action	X	X	X	Property Protection Structural Projects
Action 22. Coordination with Dam Owners/ Operators	New Action	X	X	X	Emergency Services

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

Hazards Addressed: Multi-hazard Climate Change, Dam Failure, Drought & Water Shortage (w/tree mortality), Flood: 1%/0.5%/0.2% annual chance, Flood: Localized Stormwater, Severe Weather: Extreme Heat, Severe Weather: Heavy Rains and Storms (Hail, Lightning, Wind), Severe Weather: High Winds and Tornadoes, Wildfire (with smoke and air quality))

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 in coordination with the County.

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. Enhance Public Education and Awareness of Natural Hazards and Public Understanding of Disaster Preparedness

Hazards Addressed: Multi-hazard Climate Change, Dam Failure, Drought & Water Shortage (w/tree mortality), Flood: 1%/0.5%/0.2% annual chance, Flood: Localized Stormwater, Severe Weather: Extreme Heat, Severe Weather: Heavy Rains and Storms (Hail, Lightning, Wind), Severe Weather: High Winds and Tornadoes, Wildfire (with smoke and air quality))

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 Planning Department and other City Departments depending on the specific outreach. 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. *Sunrise Blvd Widening Kiefer to Jackson*

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

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

Issue/Background (Problem Statement): A section of Sunrise Boulevard south of Kiefer Blvd and north of Jackson Road is subject to localized flooding (expected to be exacerbated by climate change). This project will add drainage features and address the roadway grading to mitigate the localized flooding.

Project Description: The project proposes to widen Sunrise Boulevard to four-lanes from Kiefer Boulevard to State Route 16 (Jackson Highway) and construct partial intersection improvements at Sunrise Boulevard and State Route 16. The project includes replacement of a bridge on Jackson Highway over Laguna Creek. Project assumes costs for the intersection at a 25% City and 75% County of Sacramento split, and 50% City and 50% County split for the widening.

Other Alternatives: The project is located in a rural area. Vehicles must travel several miles to avoid this location of localized flooding

Existing Planning Mechanism(s) through which Action Will Be Implemented: The project is currently listed in the City Capital Improvement Plan. City staff are currently preparing a funding plan and exploring funding options to construct this project.

Responsible Office/Partners: Rancho Cordova Public Works

Project Benefits (Losses Avoided): This project will add drainage features and address the roadway grading to mitigate the localized flooding.

Potential Funding (Local Budgets, Grant Funds, etc. by specific type): Federal and/or state grants: CA DWR grants, Cal OES/FEMA grants (PDM, HMGP), Local transportation funds

Timeline: Within 4 years

Project Priority (High, Medium, Low): Medium

Action 4. *Roundabout Implementation*

Hazards Addressed: Extreme Heat, High Winds and Tornadoes, Storms, Wildfires

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

Issue/Background (Problem Statement): Traffic control can be an issue in the City, especially when power outages occur and traffic signals go out.

Project Description: Encourage roundabouts in place of traffic signals where appropriate

Other Alternatives: No action

Existing Planning Mechanism(s) through which Action Will Be Implemented: Implementation of the Roundabout Feasibility Study (2023) through the City's Capital Improvement Program; Development review process for new growth areas of the city

Responsible Office/Partners: Rancho Cordova Public Works

Project Benefits (Losses Avoided): Increased ability to have traffic flow during evacuations and emergencies

Potential Funding (Local Budgets, Grant Funds, etc. by specific type): Local funding (CIP, General Fund, Staff time), developer fees/contributions, grants: Cal OES/FEMA grants (PDM, HMGP), Local transportation funds

Timeline: On-going within the 5 year life cycle of this lan

Project Priority (High, Medium, Low): Medium

Action 5. *Disaster Training for Staff*

Hazards Addressed: Multi-hazard (Climate Change, Dam Failure, Drought & Water Shortage, Earthquake, Earthquake Liquefaction, Floods: 1%/0.2% Annual Chance, Floods: Localized Stormwater, Pandemic, Severe Weather: Extreme Heat, Severe Weather: Heavy Rains and Storms, Severe Weather: Wind and Tornado, Wildfire)

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

Issue/Background (Problem Statement): City staff play a critical role in disaster preparedness, response, and recovery. Staff turnover and evolving response protocols create a need for annual training. Without consistent, annual disaster training, staff would be less equipped to perform emergency functions, coordinate effectively, and communicate with the public.

Project Description: Develop and implement a comprehensive disaster training program for City staff. The program could include identification of training provided by regional partners, annual emergency preparedness training, hazard-specific workshops, and communication protocols. The project could also include development of training materials, staff participation, and annual updates to the training materials as needed.

Other Alternatives: No action

Existing Planning Mechanism(s) through which Action Will Be Implemented: Existing Emergency Operations Plan

Responsible Office/Partners: Rancho Cordova Neighborhood Services Department, Planning Department, Sacramento Regional Office of Homeland Security, County of Sacramento Office of Emergency Services, State OES.

Project Benefits (Losses Avoided):

- Increases the City's ability to effectively respond to disasters
- Improved communication between departments, agencies, and the public
- Continuity of government services during disasters
- Improves City's ability to protect lives, property, and critical infrastructure during emergencies
- Enhances staff knowledge of emergency roles and responsibilities

Potential Funding (Local Budgets, Grant Funds, etc. by specific type): Local General Funds and staff time, State Office of Emergency Services training and preparedness grants, FEMA Emergency Management Performance Grant, Sacramento Regional Office of Homeland Security Flood Disaster Training grants

Timeline: Within 3 years, then annually

Project Priority (High, Medium, Low): High

Action 6. Update/Maintain Emergency Operations Plans (EOPs)

Hazards Addressed: Multi-hazard Climate Change, Dam Failure, Drought & Water Shortage (w/tree mortality), Flood: 1%/0.5%/0.2% annual chance, Flood: Localized Stormwater, Severe Weather: Extreme Heat, Severe Weather: Heavy Rains and Storms (Hail, Lightning, Wind), Severe Weather: High Winds and Tornadoes, Wildfire (with smoke and air quality))

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

Issue/Background (Problem Statement): The City's current Emergency Operations Plan was last updated in 2013 and is required to be updated every 5 years. The Emergency Operations Plan exists to provide response and short-term recovery activities for all hazards. Additionally, the Plan includes event-specific checklists for flood, severe weather/ storm, earthquake, wildland fire, and others, which encompass Local Hazard Mitigation Plan hazards of Dam Failure, Flood (annual and localized stormwater), Severe Weather: Heavy Rains and Storms, High Winds, Wildfire, Earthquake.

Project Description: Assemble key City staff to form a team to update and maintain EOPs.

Other Alternatives: Maintain existing and outdated EOPs

Existing Planning Mechanism(s) through which Action Will Be Implemented: City staff will review existing EOPs and develop recommended changes/ updates to the EOPs.

Responsible Office/Partners: Rancho Cordova Neighborhood Services Director who serves as Emergency Operations Coordinator.

Project Benefits (Losses Avoided): The EOP's goals are to provide effective life safety measures, reduce property loss, and protect the environment; to work for the rapid resumption and recovery of impacted businesses and community services; and to create accurate documentation and records required for cost recovery.

Potential Funding (Local Budgets, Grant Funds, etc. by specific type): Local budget (general fund)

Timeline: During the 5 year life cycle of this plan

Project Priority (High, Medium, Low): Medium

Action 7. Developing and maintaining a database to track community vulnerability

Hazards Addressed: Multi-hazard Climate Change, Dam Failure, Drought & Water Shortage (w/tree mortality), Flood: 1%/0.5%/0.2% annual chance, Flood: Localized Stormwater, Severe Weather: Extreme Heat, Severe Weather: Heavy Rains and Storms (Hail, Lightning, Wind), Severe Weather: High Winds and Tornadoes, Wildfire (with smoke and air quality))

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

Issue/Background (Problem Statement): The City of Rancho Cordova has at least one major gas transmission line (PG&E) and a large gasoline transfer/storage facility. Public safety and property would certainly be negatively impacted if an explosion (from wildfire, severe weather, dam failure, flood, severe weather, or other hazard) were to occur on the large transmission line or gasoline storage facility. This mitigation effort would seek to collect and maintain GIS information that could be utilized to better prepare for and respond to such a disaster.

Project Description: The City of Rancho Cordova has built an enterprise GIS that houses many GIS layers, including parcels, streets, addresses, public works infrastructure, zoning, etc. As part of this project, work

would be performed to research, gather, and store GIS data relative to major gas transmission lines and facilities. This information would then be used to perform research and prepare pre-operation maps and GIS viewers that would be used for drills and an actual disaster scenario.

Other Alternatives: Rely on general hardcopy maps and Google Maps to assist during emergency operation exercises and actual events.

Existing Planning Mechanism(s) through which Action Will Be Implemented: The City of Rancho Cordova GIS staff would take on the bulk of the project work and implementation. Some support would be required from the Police and Fire Departments. Existing GIS software would be used for the collection, storage, and map creation steps. No new software is required for this project.

Responsible Office/Partners: Rancho Cordova Public Works Department with GIS staff, Police Department, Sacramento Metro Fire Department

Project Benefits (Losses Avoided): Reduces the potential impacts from a gas explosion, which would help to reduce negative impacts to property and people living and working near the gas transmission line and facility.

Potential Funding (Local Budgets, Grant Funds, etc. by specific type): Local budgets (general fund) staff time.

Timeline: Within 1 year and Annually (staff time) connect with gas utility to confirm accuracy of existing GIS layers

Project Priority (High, Medium, Low): Medium

Action 8. *Landscape Ordinance and Model Water Efficient Landscape Ordinance Implementation*

Hazards Addressed: Multi-hazard (Climate Change, Drought & Water Shortage, Severe Weather: Extreme Heat)

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

Issue/Background (Problem Statement): As Rancho Cordova experiences increasing exposure to drought, extreme heat, and severe weather, implementing sustainable landscape design can help reduce vulnerability to hazards. The City's Landscape Ordinance and Model Water Efficient Landscape Ordinance (MWELo) provide standards that reduce these hazards, including requirements for climate-appropriate landscaping, efficient irrigation, parking lot shade canopy trees, pervious surfaces, and buffer areas. Consistent implementation and enforcement through zoning and development plan review ensures that future projects apply water-efficient landscaping and design.

Project Description: Implementing the City's Landscape Ordinance and MWELo through the Rancho Cordova Municipal Code (RCMC) will ensure new development incorporates water-efficient landscaping and climate-resilient site design. Consistent implementation and enforcement through zoning and development plan review ensures that future projects apply water-efficient landscaping and design.

Other Alternatives: No action

Existing Planning Mechanism(s) through which Action Will Be Implemented: City of Rancho Cordova permitting and plan review process

Responsible Office/Partners: City of Rancho Cordova Planning Division and Public Works Department

Project Benefits (Losses Avoided): Reviewing projects for landscape and water-efficiency standards will help Rancho Cordova reduce long-term vulnerability to drought and extreme heat hazards. Water-efficient landscaping decreases demand during drought conditions and providing tree canopy and climate-appropriate vegetation helps lower ambient temperatures. This could reduce future maintenance and emergency response costs while conserving existing resources.

Potential Funding (Local Budgets, Grant Funds, etc. by specific type): General fund, Staff time, Project-specific development fees, State water conservation or climate adaptation grants, Cal Fire urban forestry grants

Timeline: Over the next 5 years, during entitlement review process as new development projects are submitted.

Project Priority (High, Medium, Low): Medium

Action 9. Porous Pavement and Vegetative Buffers

Hazards Addressed: Multi-hazard (Climate Change, Drought & Water Shortage, Floods: Localized Stormwater, Severe Weather: Extreme Heat, Severe Weather: Heavy Rains and Storms)

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

Issue/Background (Problem Statement): Impervious surfaces and lack of vegetation can contribute to increased stormwater runoff, higher localized flooding potential, reduced groundwater infiltration, and can contribute to the overall urban heat island effect. Rancho Cordova's zoning code includes requirements for porous pavement and vegetative buffers in certain development contexts.

Project Description: This mitigation action supports continued implementation and enforcement of the City's zoning code, which requires the use of porous pavement and vegetative buffers in new development and redevelopment sites. These features promote groundwater infiltration which reduces runoff. Through the development review and permitting process, the City can ensure that projects incorporate compliant materials and landscaping that reduces exposure to hazards related to drought, localized flooding, and extreme weather events.

Other Alternatives: Change to allow for less restrictive vegetative buffers and traditional impervious pavement

Existing Planning Mechanism(s) through which Action Will Be Implemented: City of Rancho Cordova entitlement permitting process and plan review process

Responsible Office/Partners: City of Rancho Cordova Planning Division and Code Enforcement

Project Benefits (Losses Avoided): Use of porous pavement and vegetative buffers reduces localized flooding and improves stormwater infiltration. Vegetative buffers provide benefits such as reducing surface temperatures, stabilizing soils, and improving water quality. By consistently applying these standards, Rancho Cordova can reduce exposure to hazards related to drought, flooding, and extreme heat.

Potential Funding (Local Budgets, Grant Funds, etc. by specific type): General fund, staff time, Project-specific development review and permit fees

Timeline: Over the next 5 years, during entitlement review process as new development and redevelopment projects are submitted.

Project Priority (High, Medium, Low): Medium

Action 10. *Channel Vegetation Management, Debris Removal, Erosion Control Projects*

Hazards Addressed: Flood (1%, 0.5%, 0.2%) annual chance, Flood (localized stormwater), Severe Weather: Heavy Rains and Storms

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

Issue/Background (Problem Statement): The City has a Streambed Alteration Agreement with the California Department Fish and Wildlife for routine maintenance of vegetation in and near waterways, including creeks, channels, and basins. Various locations have been identified for erosion control improvements and excavation work to improve flow capacity and minimize the potential for blockages and localized flooding. City waterways are used in the conveyance of flows resulting from Floods due to 1%, 0.5%, 0.2 annual chance, Floods due to localized stormwater, and runoff due to Severe Weather: Heavy Rains and Storms.

Project Description: Undertake projects that improve the structural integrity of channel slopes in various locations. Implement solutions that control and reduce the chances for erosion, which is usually caused by runoff from adjacent properties and burrowing animals.

Perform excavation projects that remove vegetation (e.g. cattails, bulrush, plants/trees) that impede water flow and reduce flood capacity in channels.

Other Alternatives: Continue to perform routine weed abatement activities, and complete erosion control and excavation projects as funding allows

Existing Planning Mechanism(s) through which Action Will Be Implemented: Erosion control and excavation projects will be completed by the City's existing maintenance contractors as funding allows.

Responsible Office/Partners: City of Rancho Cordova Public Works Department

Project Benefits (Losses Avoided): Ensures flood capacity and flow capacity of streams and creeks is not diminished.

Potential Funding (Local Budgets, Grant Funds, etc. by specific type): Local Funding - Stormwater Utility Fee or General Fund, FEMA Hazard Mitigation Grant Funding

Timeline: Within 1 year and ongoing (over the next 5 years)

Project Priority (High, Medium, Low): High

Action 11. Implement Projects in the Stormwater Capital Improvement Program Master Plan

Hazards Addressed: Climate Change, Localized Flooding, Severe Weather (Heavy Rains and Storms)

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

Issue/Background (Problem Statement): After assuming maintenance of the City drainage system from the County of Sacramento on July 1, 2014, the City identified a need for a comprehensive master planning study of its storm drainage system. The Stormwater Capital Improvement Program Master Plan approved in April 2021 evaluated the existing trunk drainage facilities serving the City and developed recommendations for eliminating existing deficiencies in capacity/conditions and for enhancing stormwater quality. The hydraulic and hydrologic study identified locations of localized flooding resulting from severe weather (heavy rains and storms) with recurrence intervals of 10 and 100 years. In recent years, 10-year and 100-year precipitation levels have been recorded to occur within the City at higher frequencies than the recurrence intervals would suggest – a condition that would only increase with climate change.

Project Description: The Master Plan identified a number of flood control projects that are required to help resolve existing flooding issues and prevent future impacts from severe storm events. Some projects were initiated immediately after Plan completion, while others have identified budget shortfalls which will require grant funding for implementation. This project will continue to update and implement projects from the Stormwater Capital Improvement Program Master Plan.

Other Alternatives: No action.

Existing Planning Mechanism(s) through which Action Will Be Implemented: Projects have been added to the City's 5-year Capital Improvement Plan

Responsible Office/Partners: City of Rancho Cordova Public Works Department

Project Benefits (Losses Avoided): Prevent damages to life and property from large flooding events and alleviate local flooding.

Potential Funding (Local Budgets, Grant Funds, etc. by specific type): Local funds (Stormwater Utility Fee, CIP), FEMA Hazard Mitigation Grant Funding

Timeline: Within 1 year and ongoing

Project Priority (High, Medium, Low): Medium

Action 12. *Sunrise Blvd & Monier Circle Drainage Improvements*

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

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

Issue/Background (Problem Statement): Localized stormwater flooding occurs on Sunrise Blvd. between Monier Circle and Fitzgerald during severe rain events due to limited capacity of culverts under Sunrise Blvd and the Folsom South Canal siphons. Sunrise Blvd is a major arterial in the City. In recent years, 10-year and 100-year precipitation levels have been recorded to occur within the City at higher frequencies than the recurrence intervals would suggest – a condition that would only increase with climate change.

Project Description: Project includes utilizing a vacant lot to build a flood control detention basin and divert flows from the creek to the basin during large storm events. The project may also include replacing two undersized culverts across Sunrise Blvd between Recycle Road and Monier Circle. In 2022 the City was awarded a FEMA Hazard Mitigation Grant Program Phased project. The City submitted phase 1 design and cost estimates for FEMA review in December 2023. According to the California Governor’s Office of Emergency Services (CalOES) which administers the grant, phase 2 final design and construction may not proceed until FEMA provides notice to proceed. In Summer 2026, City staff were awaiting FEMA review updates.

Other Alternatives: No action.

Existing Planning Mechanism(s) through which Action Will Be Implemented: Project identified in the City’s 5-year Capital Improvement Plan

Responsible Office/Partners: City of Rancho Cordova Public Works Department

Project Benefits (Losses Avoided): Project will allow unimpeded public access including access for emergency vehicles along Sunrise Blvd. during significant flooding events.

Potential Funding (Local Budgets, Grant Funds, etc. by specific type): Local Budgets (General Fund, CIP, Stormwater Utility Fee), FEMA Hazard Mitigation Grant Program

Timeline: Within 1-3 years

Project Priority (High, Medium, Low): High

Action 13. *Preparedness for Evacuations for Various Acute Hazards*

Hazards Addressed: Dam Failure, Flood (1%/0.5%/0/2% annual chance), Flood: Localized Stormwater, Levee failure, Severe Weather: Heavy Rains and Storms, Wildfire

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

Issue/Background (Problem Statement): Though some hazards within this plan have steady onset, other hazards (such as Dam failure, Flood (annual chance and localized stormwater), levee failure, severe weather (heavy rains and storms), and wildfire) are likely to have an acute onset. Each hazard affects slightly different areas of the City. Thus, in the event of an emergency, standard evacuation routes may be impacted uniquely by the hazard in question.

Project Description: Develop evacuation plans for areas included in the dam inundation mapping, various flooding (due to annual chance, localized stormwater, or severe weather), and wildfire hazard layers. Include analysis on potential large evacuation shelters in different areas of the city to account for the wide variation area affected by the hazards.

Other Alternatives: No action. Evacuation routes may be based on the City's main arterials without pre-planning or consideration on hazard effects on the route.

Existing Planning Mechanism(s) through which Action Will Be Implemented: The evacuation routes may be developed by a consultant to assist the City in supplementing updates to the Emergency Operations Plan.

Responsible Office/Partners: Rancho Cordova Public Works Department, Neighborhood Services Department

Project Benefits (Losses Avoided): Reduced loss of life due to avoidance of evacuation routes affected by acute hazards.

Potential Funding (Local Budgets, Grant Funds, etc. by specific type): Local Budgets (general fund), FEMA Hazard Mitigation Grant Program

Timeline: 1-3 years

Project Priority (High, Medium, Low): High

Action 14. Wildfire Weed Reduction and Resiliency

Hazards Addressed: Wildfire

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

Issue/Background (Problem Statement): Increase the City's resilience to wildfire

Project Description: Increase weed abatement and vegetation clearing activities before wildfire season, coordinate code enforcement on private property for weed abatement fire breaks.

Other Alternatives: No enforcement of private fire breaks may lead to higher frequency of wildfires, particularly in areas of the City within the CalFire Fire Hazard Severity Zones.

Existing Planning Mechanism(s) through which Action Will Be Implemented: Weed abatement will be completed on City parcels and waterways by existing City contractors as funding allows. Enforcement will be through the Rancho Cordova municipal code Chapter 17.12 Weed Control.

Responsible Office/Partners: City of Rancho Cordova Public Works Department, Neighborhood Services (Code Enforcement) Department.

Project Benefits (Losses Avoided): Reduced loss of life and property due to fire spreading more slowly with fire breaks on large parcels.

Potential Funding (Local Budgets, Grant Funds, etc. by specific type): Local Stormwater Utility Fund, Local general fund

Timeline: Within 1 year and ongoing

Project Priority (High, Medium, Low): Medium

Action 15. Implement Climate Action and Adaptation Plan Strategy Adaptation-1: Improve resilience to increased temperature and extreme heat

Hazards Addressed: Climate Change, Flood: 1%/0.5%/0.2% Annual Chance, Severe Weather: Extreme Heat

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

Issue/Background (Problem Statement): The City has experienced, and is projected to continue experiencing, increases in average annual temperature and extreme heat, which could lead to an array of potential impacts, including negative public health outcomes, worsened air quality, increased demand for air conditioning, and deterioration of critical infrastructure. According to Cal-Adapt, the average annual maximum and minimum temperature in the city are both projected to rise between 5 and 9 °F by the end of the century as a result of climate change (CEC 2021a). Increased temperatures in the city will also lead to a significant increase in extreme heat events. For the city, an extreme heat day is defined as a day when the maximum temperature is above the extreme heat threshold of 103.6 °F, which is notably high compared to other regions of the State. Heat waves refer to a period of four or more consecutive extreme heat days (CEC 2021b). The average annual number of extreme heat days, heat waves, and the number of days in the longest stretch of consecutive extreme heat days are all projected to rise through the end of the century.

Project Description:

- Objectives:
 - ✓ Reduce the urban heat island effect
 - ✓ Protect populations from extreme heat
- Actions:
 - ✓ Promote the use of “cool” roofs on both new and existing residential and nonresidential buildings.
 - ✓ Pilot and monitor benefits of “cool” pavement in residential neighborhoods.

- ✓ Conduct a mapping exercise to determine locations around the city that experience the greatest impact from the urban heat island effect and utilize this information to prioritize locations for increased tree planting and sustained tree management.
- ✓ Continue hosting community tree-planting events, and collaborating with other government agencies, such as the Cordova Recreation and Park District, to co-sponsor such events on properties owned by those other agencies, and offering free trees for residents, businesses, and community-based organizations through the City's Urban Forest program. Develop a tree planting program for increasing tree planting at City-owned sites.
- ✓ Explore opportunities to further increase shading of buildings and parking lots using trees and/or solar canopies.
- ✓ Preserve, enhance, increase, and establish community green areas, such as parks, recreational facilities, and open space.
- ✓ Expand cooling center access during extreme heat events through extended hours, more locations, and less stringent criteria for opening.
- ✓ Partner with community-based organizations, faith-based organizations, businesses, and other public agencies to develop a "Community Cool Zone Network" comprised of air-conditioned spaces that are made available to vulnerable populations during extreme heat events to prevent heat-related illnesses.
- ✓ Support employers to protect worker health from extreme heat, especially those working in vulnerable occupations, through targeted outreach and information-sharing about extreme heat risks, applicable regulations, and strategies to reduce risk.
- ✓ Develop a "Cool Buddy" program where local volunteers are trained to build neighborhood networks, identify heat-vulnerable neighbors, and set up systems to check in on each other during extreme heat events.
- ✓ Develop public awareness campaigns that bolster extreme heat event preparedness actions and adaptation strategies.
- ✓ Support a comprehensive outreach campaign to prevent heat-related illnesses among vulnerable populations, including, but not limited to, children, seniors, people experiencing homelessness, people with disabilities in the care of licensed facilities, and workers in vulnerable occupations.

Other Alternatives: No Action

Existing Planning Mechanism(s) through which Action Will Be Implemented: Rancho Cordova Climate Action and Adaptation Plan

Responsible Office/Partners: Rancho Cordova Housing Division and Public Works Department; Cordova Recreation and Parks District

Project Benefits (Losses Avoided):

Public Health Benefits / Losses Avoided

- Reduced risk of heat-related illness (e.g., heat stroke).
- Reduced adverse health impacts on vulnerable populations, including:
 - ✓ Older adults (65+)
 - ✓ Infants and children

- ✓ People with chronic health conditions
- ✓ Low-income individuals
- ✓ People experiencing homelessness
- ✓ Outdoor workers
- Improved local air quality by avoiding heat-related air quality degradation.

Energy System Benefits / Losses Avoided

- Avoided increases in air conditioning demand.
- Reduced stress on the electricity grid.
- Lower electricity costs for residents.
- Reduced inequitable impacts on households without air conditioning access.

Transportation Infrastructure Benefits / Losses Avoided

- Avoided pavement deterioration.
- Lower transportation system maintenance and repair costs.

Economic and Community Benefits / Losses Avoided

- Reduced infrastructure repair and replacement expenses.
- Lower household energy expenditures.
- Improved reliability of transportation and electric service.
- Reduced disruption to residents' daily activities and mobility.

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

- City of Rancho Cordova General Fund
- City of Rancho Cordova Community Enhancement and Investment Fund
- HUD Community Development Block Grants
- Strategic Growth Council Community Resilience Centers Program
- Strategic Growth Council Transformative Climate Communities
- California Department of Parks and Recreation Statewide Park Program
- California Department of Parks and Recreation Recreational Trails Program
- California Natural Resources Agency Urban Greening Grant Program

Timeline: To be initiated within 5 years and ongoing

Project Priority (High, Medium, Low): Medium

Action 16. *Inspect, Replace, or Concrete-Line Corrugated Metal Pipes*

Hazards Addressed: Floods: 1%/0.2% annual chance, Floods: Localized Stormwater, Severe Weather: Heavy Rains and Storms, Climate Change

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

Issue/Background (Problem Statement): Corrugated metal pipe (CMP) is no longer used for public storm drain systems due to its limited durability, long-term maintenance requirements, and high lifecycle cost. According to Sacramento County Construction Specifications Technical Provisions Section 50, corrugated metal pipe is limited to driveway culverts. However, the City's storm drainage system still contains numerous aging CMPs that are reaching or have exceeded their useful service life. Many of these pipes exhibit corrosion, joint separation, invert deterioration, sediment accumulation, and reduced hydraulic capacity, which are further accelerated by flooding and increasingly intense storm events associated with climate change. As CMP deteriorates, it becomes more susceptible to structural failure, blockage, or collapse, resulting in localized flooding, roadway overtopping, erosion, damage to public infrastructure, disruption of emergency access, and increased maintenance costs. CMPs present an increasing risk to public safety and the long-term reliability and resilience of the City's storm drainage system.

Project Description: Conduct condition assessments of existing CMPs throughout the City's storm drainage system to identify deficient facilities. Based on inspection results, rehabilitate CMPs by installing cured-in-place concrete lining or other structural lining systems where appropriate, or replace CMPs that cannot be effectively rehabilitated. CMP replacements will be designed to meet current hydraulic standards, improve long-term structural integrity, reduce maintenance needs, and enhance the resilience of the City's stormwater infrastructure to future storm events.

Other Alternatives: Perform localized repairs without structural rehabilitation or replacement OR No action.

Existing Planning Mechanism(s) through which Action Will Be Implemented: City Capital Improvement Program (CIP); Stormwater Master Plan; Annual Storm Drain Inspection and Maintenance Program; Improvement Standards

Responsible Office/Partners: City of Rancho Cordova Public Works Department

Project Benefits (Losses Avoided): Reduces the likelihood of culvert failures and localized flooding; protects public safety by maintaining roadway access during storm events; reduces emergency response and repair costs; extends the useful life of stormwater infrastructure; improves drainage system reliability and hydraulic performance; reduces erosion and damage to adjacent public and private property; improves resilience to future extreme precipitation events; supports uninterrupted emergency vehicle access and community mobility.

Potential Funding (Local Budgets, Grant Funds, etc. by specific type): Capital Improvement Program fund, Stormwater Utility Fund, General Fund, Staff Time, applicable State and Federal infrastructure grants, FEMA HMGP grants

Timeline: Initiate inspections within 1 year and implement rehabilitation/replacement projects as roadway CIP projects are constructed and funding becomes available.

Project Priority (High, Medium, Low): High

Action 17. *Levee sensitivity analysis*

Hazards Addressed: Dam Failure, Levee Failure, Floods (1%, 0.5%, 0.2%), Floods (localized stormwater flooding)

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

Issue/Background (Problem Statement): In response to Senate Bill 5, Urban Level of Protection, the City is required to provide a 200-year urban level of flood protection criteria when regulating development within the 200-year floodplain. The City completed the required General Plan updates and incorporated the revised floodplain map into its zoning ordinance in 2017. Flows in the American River (the main source of flooding in the 1%, 0.5%, and 0.2% storm events) are primarily impacted by operations of Folsom Dam upstream of the City. Technical modeling in 2016 evaluated levee elevations compared to 1-in-200-year Annual Exceedance Probability Flood Depths and Water Surface Elevations with expected completion of the federally authorized Folsom Dam Joint Federal Project and Dam Raises. However, the City does not have more recent technical modeling of other storm events which would potentially contribute to levee overtopping or impacts.

Project Description: This project will include a technical analysis of probable release volumes from Folsom Dam to evaluate levee sensitivity by determining the water levels associated with levee overtopping or failure.

Other Alternatives: No action. The City will continue to rely on the 200-year floodplain zones adopted in 2017.

Existing Planning Mechanism(s) through which Action Will Be Implemented: Periodic evaluations as required by the City's Urban Level of Flood Protection

Responsible Office/Partners: City of Rancho Cordova Public Works Department

Project Benefits (Losses Avoided): City staff will have greater understanding of how forecasted dam release volumes will impact City-maintained levees. This will contribute to reduced losses of property if property owners are notified of potential hardening opportunities or short term preparedness actions.

Potential Funding (Local Budgets, Grant Funds, etc. by specific type): Local Budget – Stormwater Enterprise Fund or general fund.

Timeline: Within 5 years

Project Priority (High, Medium, Low): Medium

Action 18. *Implement projects in the Rancho Cordova Active Transportation Plan (2026)*

Hazards Addressed: Climate Change

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

Issue/Background (Problem Statement): The City of Rancho Cordova updated two plans – the Pedestrians Master Plan (2011) and the Bicycle Master Plan (2016) into one updated document, with a new vision on how Rancho Cordova can invest in a multi-modal network to improve walking, biking, and rolling in the city. Private automobile transportation is the City’s highest contributor to GHGs by a wide margin. Implementation of this plan lowers the city’s reliance on personal vehicles and decreasing GHGs and contributions to climate change.

Project Description: The Active Transportation Plan identified over 500 projects to improve walking, biking, and rolling in Rancho Cordova with 97 identified as priority. Some projects have immediately begun the next phases on implementation, but most will be implemented over the next 5-10 years.

Other Alternatives: No action

Existing Planning Mechanism(s) through which Action Will Be Implemented: Priority Projects are added to the City’s Capital Improvement Program; new development can also incorporate projects into new growth areas of the city; staff seeks grants for external funding

Responsible Office/Partners: Rancho Cordova Public Works

Project Benefits (Losses Avoided): Increase multimodal transportation options in the city and reduce the dependance on driving personal vehicles which is the city’s largest contributor of GHGs and will lead to a reduction in climate change for a more sustainable future.

Potential Funding (Local Budgets, Grant Funds, etc. by specific type): Local Capital Improvement Program funding, local developer impact fees/contributions, California Transportation Commission Active Transportation Program grant, Carbon Reduction Grant, Highway Safety Improvement Program grant, Solutions for Congested Corridors grant, Regional (SACOG) grants, Safe Streets and Roads for All grant,

Timeline: Within 1 year and continuously

Project Priority (High, Medium, Low): High

Action 19. Replace Undersized Drainage Laterals to Meet Current Drainage Standards

Hazards Addressed: Climate Change, Floods: 1%/0.2% annual chance, Floods: Localized Stormwater, Severe Weather: Heavy Rains and Storms

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

Issue/Background (Problem Statement): According to Sacramento County Construction Specifications Technical Provisions Section 38-6, storm drain inlet laterals must be a minimum of 12 inches in diameter. Portions of the City's storm drainage system in historic neighborhoods contain undersized lateral pipes that do not meet current design standards and may restrict flow during moderate to large storm events. These undersized laterals can reduce hydraulic capacity, contribute to localized street and property flooding, and increase the risk of stormwater system surcharge during heavy rainfall. As precipitation intensity continues to increase due to climate change, these capacity deficiencies become more pronounced. Replacing

undersized laterals with pipes that meet current drainage standards will improve the City's ability to safely convey stormwater and reduce flood risk.

Project Description: Replace undersized storm drain inlet laterals throughout the City's drainage system with 12-inch diameter or larger pipes that meet current Sacramento County standards. Replacements will primarily occur in conjunction with roadway rehabilitation and Capital Improvement Program (CIP) projects to minimize construction costs and public disruption while improving hydraulic capacity and long-term system performance.

Other Alternatives: No Action.

Existing Planning Mechanism(s) through which Action Will Be Implemented: City Capital Improvement Program (CIP); Stormwater Master Plan; Improvement Standards; Annual Storm Drain Inspection and Maintenance Program.

Responsible Office/Partners: City of Rancho Cordova Public Works Department

Project Benefits (Losses Avoided): Reduces localized flooding; improves public safety; protects public and private infrastructure from flood damage; increases hydraulic capacity of the storm drainage system; improves roadway drainage; reduces maintenance costs and emergency repairs; and increases the resilience of the City's stormwater system to future storm events.

Potential Funding (Local Budgets, Grant Funds, etc. by specific type): Capital Improvement Program fund, Stormwater Utility Fund, General Fund, Staff Time, applicable State and Federal infrastructure grants

Timeline: Initiate within 1 year and implement continuously as roadway CIP projects are constructed and funding becomes available.

Project Priority (High, Medium, Low): High

Action 20. Add Stream or Flow Gauges at Critical Creek Locations Citywide

Hazards Addressed: Floods: 1%/0.2% annual chance, Floods: Localized Stormwater, Severe Weather: Heavy Rains and Storms, Climate Change

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

Issue/Background (Problem Statement): The City currently has limited real-time information on stream levels and stormwater flows within its creek system during storm events. Without continuous monitoring, City staff must rely on field observations, public reports, and weather forecasts to assess flooding conditions, which can delay response efforts and reduce situational awareness. As storm intensity and rainfall variability increase due to climate change, timely and accurate hydrologic data are becoming increasingly important for emergency response, infrastructure management, and long-term flood mitigation planning. Installing stream and flow gauges at critical creek locations will improve the City's ability to monitor flood conditions, identify developing hazards, and make informed operational decisions during storm events.

Project Description: Install stream level or flow monitoring gauges at strategically selected creek locations throughout the City to provide real-time hydrologic data during storm events. Gauges may include water level sensors, flow measurement equipment, telemetry systems, and integration with the City's Smart Operations platform to allow remote monitoring, data collection, automated alerts, and improved decision-making for stormwater operations and emergency response.

Other Alternatives: No action.

Existing Planning Mechanism(s) through which Action Will Be Implemented: City of Rancho Cordova 2025–2027 Technology Plan (Smart Operations Initiative); Annual Stormwater Facilities Maintenance Program.

Responsible Office/Partners: City of Rancho Cordova Public Works Department

Project Benefits (Losses Avoided): Improves real-time flood monitoring and situational awareness; supports earlier identification of flooding conditions; enhances emergency response and public safety; improves operational decision-making during storm events; provides data to support stormwater system planning, maintenance, and capital improvement projects; reduces potential flood damages through earlier response; and increases the City's resilience to increasingly frequent and intense storm events.

Potential Funding (Local Budgets, Grant Funds, etc. by specific type): General Fund, Stormwater Utility Fee funding, Staff Time

Timeline: Initiate within 2 years and continue installation and expansion of the monitoring network as funding becomes available.

Project Priority (High, Medium, Low): Medium

Action 21. White Rock Underground Detention Project

Hazards Addressed: Floods: 1%/0.2% annual chance, Floods: Localized Stormwater, Severe Weather: Heavy Rains and Storms, Climate Change

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

Issue/Background (Problem Statement): The White Rock neighborhood experiences localized flooding during major storm events because the area drains to the Mills Tower Pump Station, which lacks sufficient capacity to convey peak stormwater flows. The pump station acts as a hydraulic bottleneck, causing stormwater to pond upstream and increasing flood risk to public roadways, adjacent properties, and critical infrastructure within the neighborhood. The City's Drainage Feasibility Study identified underground detention storage as a feasible means of temporarily storing stormwater, reducing peak inflows to the pump station, and improving overall drainage system performance. Underground detention reduces downstream flooding by temporarily storing stormwater during peak runoff conditions and releasing it at a controlled rate after the storm has passed. As storm intensity increases due to climate change and continued development within the watershed, additional stormwater storage capacity is needed to reduce localized flood risk and improve long-term system resilience.

Project Description: Design and construct an underground stormwater detention facility beneath the play field at White Rock Elementary School to temporarily store stormwater runoff during major storm events. The project will reduce peak flows to the Mills Tower Pump Station and reduce localized flooding in White Rock neighborhood.

Other Alternatives: Increase pumping capacity at Mills Tower Pump Station OR No Action.

Existing Planning Mechanism(s) through which Action Will Be Implemented: City Capital Improvement Program (CIP); Mills Tower Pump Station Drainage Feasibility Study, Stormwater Master Plan; Annual Storm Drain Inspection and Maintenance Program.

Responsible Office/Partners: City of Rancho Cordova Public Works Department

Project Benefits (Losses Avoided): Reduces localized flooding in the White Rock neighborhood; protects public infrastructure and adjacent private property; improves roadway safety and emergency access during storm events; increases stormwater storage capacity; reduces peak flows to Mills Tower Pump Station; improves long-term drainage system resiliency; and increases the City's ability to adapt to more frequent and intense storm events.

Potential Funding (Local Budgets, Grant Funds, etc. by specific type): Capital Improvement Program fund, Stormwater Utility Fund, General Fund, Staff Time, applicable State and Federal infrastructure grants

Timeline: Initiate design within 5 years and complete construction within 5-10 years as funding becomes available.

Project Priority (High, Medium, Low): High

Action 22. *Coordination with Dam Owners/ Operators*

Hazards Addressed: Dam Failure

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

Issue/Background (Problem Statement): The City of Rancho Cordova is within the inundation path of several dams inside and outside of Sacramento County. If dam failure or overtopping were to occur, loss of life and property is highly likely. Currently, staff in the City of Rancho Cordova's Public Works department do not have direct coordination with Dam Owners/ Operators which could provide advance notice of failure or overtopping.

Project Description: Public Works department staff will identify communication channels with Dam Owners/Operators and join appropriate stakeholder notification groups to stay informed about changes to dam operations or emergencies. Public Works department staff will coordinate to convey any time sensitive information to the City's Neighborhood Services department, which is responsible for public safety and emergency operations.

Other Alternatives: No action

Existing Planning Mechanism(s) through which Action Will Be Implemented: Updates to the City's Emergency Operations Plans

Responsible Office/Partners: City of Rancho Cordova Public Works Department

Project Benefits (Losses Avoided): Reduced loss of life or property through advance notice of imminent failure or overtopping from nearby dams.

Potential Funding (Local Budgets, Grant Funds, etc. by specific type): Local budget (Stormwater Utility Fund) staff time

Timeline: 3-5 years, then ongoing

Project Priority (High, Medium, Low): Medium