



## ANNEX C CITY OF HANFORD

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### C.1 PURPOSE

This Annex summarizes the hazard mitigation elements specific to the City of Hanford. This Annex supplements the Kings County Multi-Jurisdictional Hazard Mitigation Plan (MJHMP); therefore the Annex is not a stand-alone plan but intended to supplement the hazard information provided in the Base Plan document. All other sections of the Kings County MJHMP, or Base Plan, including the sections on the planning process, countywide risk assessment, and procedural requirements related to plan implementation and maintenance apply to the City of Hanford. This Annex provides additional information specific to the City of Hanford, including details on the City's profile, planning process, risk assessment, and mitigation strategy for the community.

### C.2 COMMUNITY PROFILE

#### C.2.1 Mitigation Planning History and 2021-2022 Process

This Annex was created during the development of the 2023 Kings County MJHMP update. The City of Hanford participated in Kings County's 2012 Multi-Jurisdictional Local Hazard Mitigation Plan process; however the 2012 MJHMP did not include supplemental annexes for each of the participating jurisdictions. Instead, the 2012 MJHMP included a Community Profile that summarized the priority hazards for the City and included a vulnerability assessment. Information on the participating jurisdictions vulnerability to hazards and their specific mitigation actions were also included in the main plan.

During the current update process, the City of Hanford followed the planning process detailed in Chapter 3 of the Base Plan. This planning process consisted of participation in the Hazard Mitigation Planning Committee (HMPC) and the formation of a smaller internal planning team referred to as the City's Local Planning Committee (LPT). The LPT was organized to support the broader planning process, coordinate with the City departmental staff, and develop customized mitigation actions and projects specific to the City of Hanford. The City's LPT is also responsible for the update, implementation, and maintenance of the plan. LPT members are listed in Appendix A.

#### C.2.2 Geography and Climate

Hanford is situated near the northern tip of Kings County, approximately 30 miles south of Fresno in the south central San Joaquin Valley. The city's geography is characterized by flat and fertile land, surrounded by agricultural fields. The Kings River flows nearby and contributes to its agricultural prominence. The People's Ditch in the northeastern portion of the City is a man-made facility designed as part of a water delivery system that diverts water from Kings River and distributes the water to the agricultural areas south of the City.

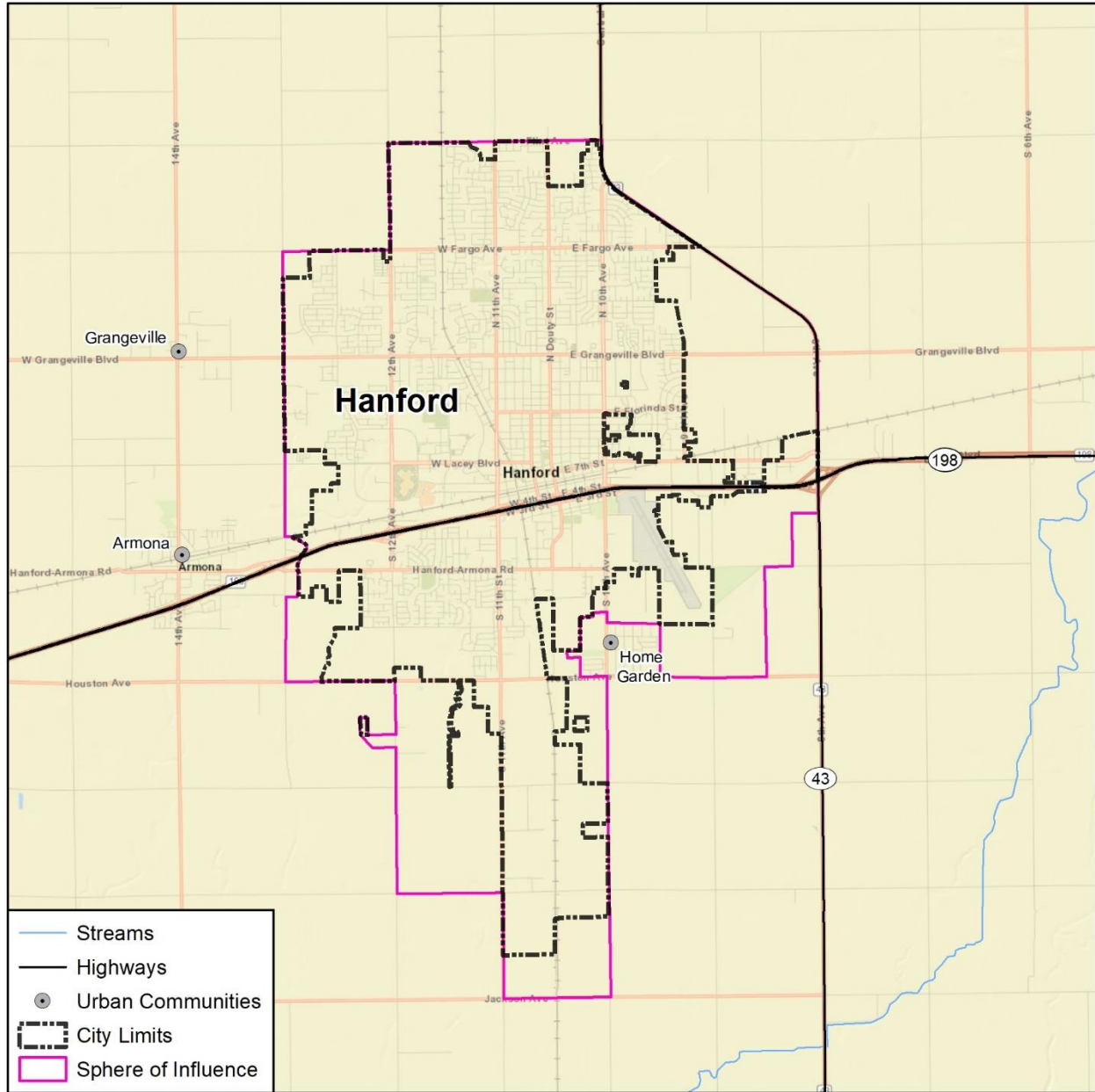
Hanford benefits from its proximity to major transportation routes. The city is connected to the Central Valley via U.S. Route 198, which provides a direct east-west link and facilitates transportation to neighboring communities. Additionally, State Route (SR) 43 serves as a north-south route, enhancing connectivity within the region.

Hanford experiences a Mediterranean climate with hot, dry summers and mild, relatively wet winters. The summers are characterized by high temperatures, often exceeding 90°F, and low humidity. Winters are generally cooler with daytime temperatures ranging from the mid-50s to low 60s °F. The region receives the majority of its precipitation during the winter months, primarily from December to February, often in the form of rain. The terrain in the City slopes from the northeast to the southwest with elevations ranging from 255 to 240 feet above mean sea level (msl).



Figure C-1 below shows the city limits and the sphere of influence boundary (SOI) for the City of Hanford. The city limits, or the area where the City has authority to make land use decisions, is the City's planning area and consists of 10,624 acres, or 16.6 square miles.

**Figure C-1 City of Hanford**



Map compiled 7/2023;  
Intended for planning purposes only.  
Data Source: Kings County, DWR

0 1 2 Miles





### C.2.3 History

The Hanford area was inhabited by the Tachi Yokut Native Americans for several thousand years before the first European settlers arrived in the San Joaquin Valley in the 1820s. They occupied areas along watercourses, such as creeks, springs, and seep areas (sloughs), as well as flat ridges and terraces. Permanent villages were usually placed on an elevation above the seasonal flood levels. Surrounding areas were used for hunting and seed, acorn, and grass gathering.

The name Hanford traces back to the Southern Pacific Railway's establishment of tracks that intersected a Chinese shepherd's camp. This marked the beginning of the City, named after James Madison Hanford, the railway's auditor, who was involved in lot sales. The sale of lots commenced on January 17, 1877. With the railway's support, Hanford rapidly grew into a trading hub for the area.

The town's early years were marred by destructive fires, notably in 1887 and 1891, which hindered growth. Following the latter fire, on June 20, 1891, a town meeting was held, driven by insufficient fire protection, leading to discussions of incorporation. On August 8, 1891, an election favored incorporation, resulting in the birth of the City of Hanford on August 12, 1891. With the formation of Kings County in 1893, Hanford became its County Seat.

Throughout the 1900s, Hanford flourished as schools, churches, and an opera house were established. In 1924, the Civic Auditorium, now a community focal point, was completed. The City evolved, transitioning from a Board of Trustees to the Hanford City Council in the 1930s. Notably, the city manager/city council form of government emerged in 1950. Hanford's downtown faced revitalization challenges, which led to the creation of the Central Parking and Improvement District in 1975, sparking downtown enhancements.

In 1980, a Historic District was established to promote historic structure restoration. Hanford's downtown revival efforts earned recognition, winning awards including the Helen Putnam Award for Excellence in 1985 and one of the Rohm and Haas Paint Quality Institute "Prettiest Painted Places in America" designations. Today the City is characterized as a small town with a rich history that offers its residents high quality of living with access to larger city amenities.

### C.2.4 Economy

Hanford is committed to improving the local economy and enhancing the quality of life for its citizens and visitors. While economic development can involve job and income growth, it also involves sustainable increases in the productivity of individuals, businesses and resources to increase the overall well-being of residents and maintain or enhance their quality of life. The focus also includes business attraction, business retention and expansion, and workforce development.

The City currently has a Qualified Opportunity Zone (QOZ) near the Hanford Municipal Airport. A QOZ is an economically distressed community where new investments, under certain conditions, may be eligible for preferential tax treatment. Localities qualify as QOZs if they were nominated for that designation by a state, the District of Columbia, or a U.S. territory and that nomination was certified by the Secretary of the U.S. Treasury via his delegation of authority to the Internal Revenue Service (IRS).

According to the City of Hanford official website, the largest age demographic in Hanford is those 10-19 years of age, with 20-29 years of age being a close second. The median age in the City is 32 years old. These demographics suggest that the City has an ample capacity for economic growth.

Estimates of select economic characteristics for the City of Hanford are shown in Table C-1.

**Table C-1 City of Hanford Economic Characteristics, 2017-2021**

CHARACTERISTIC	CITY OF HANFORD
Families below Poverty Level (%)	13.2%
All People below Poverty Level (%)	15.5%
Median Family Income	\$74,745



CHARACTERISTIC	CITY OF HANFORD
Median Household Income	\$48,815
Per Capita Income	\$27,747
Population in Labor Force	60.8%
Population Employed*	53.8%
Unemployment Rate**	8.4%

Source: U.S. Census Bureau, California Department of Finance, 2017-2021 American Community Survey (ACS), 5-year estimates, [www.census.gov/](http://www.census.gov/)

\*Excludes armed forces. \*\*Does not reflect unemployment numbers due to COVID-19 Pandemic

The most common industries in Hanford are educational services and public administration (a combined average of 38.5% of workers) followed by retail and agriculture. The most common occupations in Hanford are management, business, sciences, and arts occupations and service occupations, together accounting for 52.4% of the labor force. The tables below show the labor force breakdown by occupations and industry based on estimates from the 2017-2021 five-year American Community Survey (ACS).

**Table C-2 City of Hanford Employment by Industry, 2017-2021**

OCCUPATION	# EMPLOYED	% EMPLOYED
Educational services, and health care and social assistance	5,250	22.9%
Public administration	3,569	15.6%
Retail trade	2,598	11.3%
Agriculture, forestry, fishing and hunting, and mining	2,436	10.6%
Arts, entertainment, and recreation, and accommodation and food services	1,772	7.7%
Manufacturing	1,728	7.5%
Professional, scientific, and management, and administrative and waste management services	1,256	5.5%
Other services, except public administration	976	4.3%
Construction	831	3.6%
Transportation and warehousing, and utilities	757	3.3%
Finance and insurance, and real estate and rental and leasing	732	3.2%
Wholesale trade	622	2.7%
Information	374	1.6%
<b>Total</b>	<b>22,901</b>	<b>100%</b>

Source: U.S. Census Bureau, California Department of Finance, 2017-2021 American Community Survey (ACS), 5-year estimates, [www.census.gov/](http://www.census.gov/)

\*Excludes armed forces

**Table C-3 City of Hanford Employment by Occupation, 2017-2021**

OCCUPATION	# EMPLOYED	% EMPLOYED
Management, business, science, and arts occupations	6,412	28.0%
Service occupations	5,130	22.4%
Sales and office occupations	4,672	20.4%
Natural resources, construction, and maintenance occupations	3,687	16.1%
Production, transportation, and material moving occupations	2,977	13.0%
<b>Total</b>	<b>22,901</b>	<b>100%</b>

Source: U.S. Census Bureau, California Department of Finance, 2017-2021 American Community Survey (ACS), 5-year estimates, [www.census.gov/](http://www.census.gov/)

\*Excludes armed forces



## C.2.5 Population

In May 2023, the California Department of Finance (DOF) released population data for the state demographic report. According to the report, the City of Hanford has a population of 58,893 persons as of January 1, 2023, an increase of 581 residents from the previous year, equal to a 1% increase of population. Select demographic and social characteristics for the City of Hanford from the 2017-2021 ACS and the California DOF, are shown in Table C-4. The City of Hanford is made up of a large Latino population (50.6%); there are also a higher percentage of households where a language other than English is spoken at home (34%).

**Table C-4 City of Hanford Demographic and Social Characteristics, 2017-2021**

CHARACTERISTIC	CITY OF HANFORD
<b>Gender/Age</b>	
Male	51.0%
Female	49.0%
Median age (years)	32.8
Under 5 years	7.6%
Under 18 years	29.1%
65 years and over	11.7%
<b>Race/Ethnicity</b>	
White	36.0%
Asian	4.3%
Black or African American	5.0%
American Indian/Alaska Native	0.6%
Hispanic or Latino (of any race)	50.6%
Native Hawaiian and Other Pacific Islander	0.2%
Some other race	0.1%
Two or more races	3.2%
<b>Education*</b>	
% High school graduate or higher	80.6%
% with bachelor's degree or higher	18.0%
<b>Social Vulnerability</b>	
% with Disability	12.3%
% Language other than English spoken at home	34.1%
% Speak English less than "Very Well"	19.4%
% of households with a computer	94.0%
% of households with an Internet subscription	86.3%
% of households with no vehicle available	6.0%

Source: U.S. Census Bureau, California Department of Finance, 2017-2021 American Community Survey (ACS), 5-year estimates, [www.census.gov/](http://www.census.gov/)

\* Population 25 years and over

The following table with information from the ACS 5-year estimates (2017-2021) is related to housing occupancy in the City of Hanford.



Table C-5 City of Hanford Housing Occupancy and Units, 2017-2021

HOUSING CHARACTERISTIC	ESTIMATE	PERCENTAGE
Housing Occupancy		
Total Housing Units	19,215	(X)
Units Occupied	18,394	95.7%
Vacant	821	4.3%
Housing Units		
1-unit detached	14,280	74.3%
1-unit attached	294	1.5%
2 units	715	3.7%
3 or 4 units	1,091	5.7%
5-9 units	711	3.7%
10-19 units	384	2.0%
20 or more units	1,229	6.4%
Mobile Home	481	2.5%
Boat, RV, van etc.	30	0.2%
Housing Tenure		
Owner Occupied	11,138	60.6%
Renter Occupied	7,256	39.4%

Source: U.S. Census Bureau, California Department of Finance, 2017-2021 American Community Survey (ACS), 5-year estimates, [www.census.gov/](http://www.census.gov/)

## C.2.6 Disadvantaged Communities

Disadvantaged communities (DACs) are identified by the California Environmental Protection Agency (Cal EPA) pursuant to Section 39711 of the Health and Safety Code, based on geographic, socioeconomic, public health, and environmental hazard criteria, and may include, but not be limited to: areas disproportionately affected by environmental pollution or other hazards and areas with concentrations of people that are low income, high unemployment, low levels of home ownership, high rent burden, sensitive populations, or low levels of education attainment (California Health and Safety Code Section 39711). One of the ways the Cal EPA's Office of Environmental Health Hazard Assessment (OEHHA) identifies DACs is using CalEnviroScreen tool.

Employing a comprehensive approach, the OEHHA CalEnviroScreen tool applies a formula to generate a combined ranking score that considers 21 indicators for each census tract. These indicators span pollution measures like diesel emissions and concentrations of toxic sites, alongside demographic factors such as poverty and unemployment rates. Census tracts exhibiting CalEnviroScreen rankings ranging from 75 to 100 percent (i.e., within the top 25% of all tracts statewide) are designated as DACs. Census tracts are also defined as disadvantaged based census tracts with the highest 5 percent cumulative pollution burden scores, those tracts identified in the 2017 DAC designations, and lands under control of federally recognized Tribes.<sup>1</sup>

As shown in Table C-6, which is based on data derived from the OEHHA CalEnviroScreen tool, there are six census tracts designated as DACs in the City of Hanford. These census tracts are also composed of housing-burdened low-income households. This means these households are both economically disadvantaged (making less than 80% of the County's median family income) and substantially burdened by housing costs (paying greater than 50% of their income on housing costs). This situation renders these households more susceptible to negative impacts during hazard events, and less likely to recover after a disaster. California has very high housing costs relative to the rest of the country, which can make it hard for households to afford housing (OEHHA 2021). For example, the census tracts in Hanford have CalEnviroScreen rankings

<sup>1</sup> For more information on how DACs are designated refer to the final designations of DACs from May 2022 on the OEHHA CalEnviroScreen tool here: <https://oehha.ca.gov/calenviroscreen/sb535>





ranging from 32 to 75, meaning that the percentage of housing-burdened individuals surpasses that of 32 to 75% of California’s remaining census tracts (see Table C-6 for a breakdown by census tract). As a result, households in the City with lower incomes may spend a larger proportion of their income on housing and may suffer from housing-induced poverty that can affect disaster recovery (OEHHA 2021).

**Table C-6 Disadvantaged Communities Statistics**

Census Tract	% Housing-Burdened and Low-Income	# Housing units	# Low-Income Housing Units	# Housing-Burdened Housing Units	CalEnviroScreen Ranking
6031001002	14%	1,315	625	180	32
6031001003	18%	1,685	835	310	56
6031000800	9%	1570	885	144	11
6031000900	23%	2,750	1,785	635	75
6031001100	16%	1,830	1,295	285	42
6031001003	18%	1,685	835	310	56

Source: OEHHA CalEnviroScreen 4.0

Of the 58,893 people that live in the City, according to the U.S. Census, approximately 532 people are potentially exposed to hazards based on the vulnerability assessment in Section C.3.1. Among this population, those who reside in the DACs in the City are considered more socially vulnerable to hazards. Outreach, engagement, and hazard mitigation efforts should therefore address the needs of the City’s low-income and housing burdened residents. The City can utilize the CalEnviroScreen information to conduct targeted outreach and engage community members to consider what other hazards and mitigation strategies or programs should be considered to meet community needs. The City can also engage these communities to proactively prioritize hazard mitigation projects that benefit DACs.

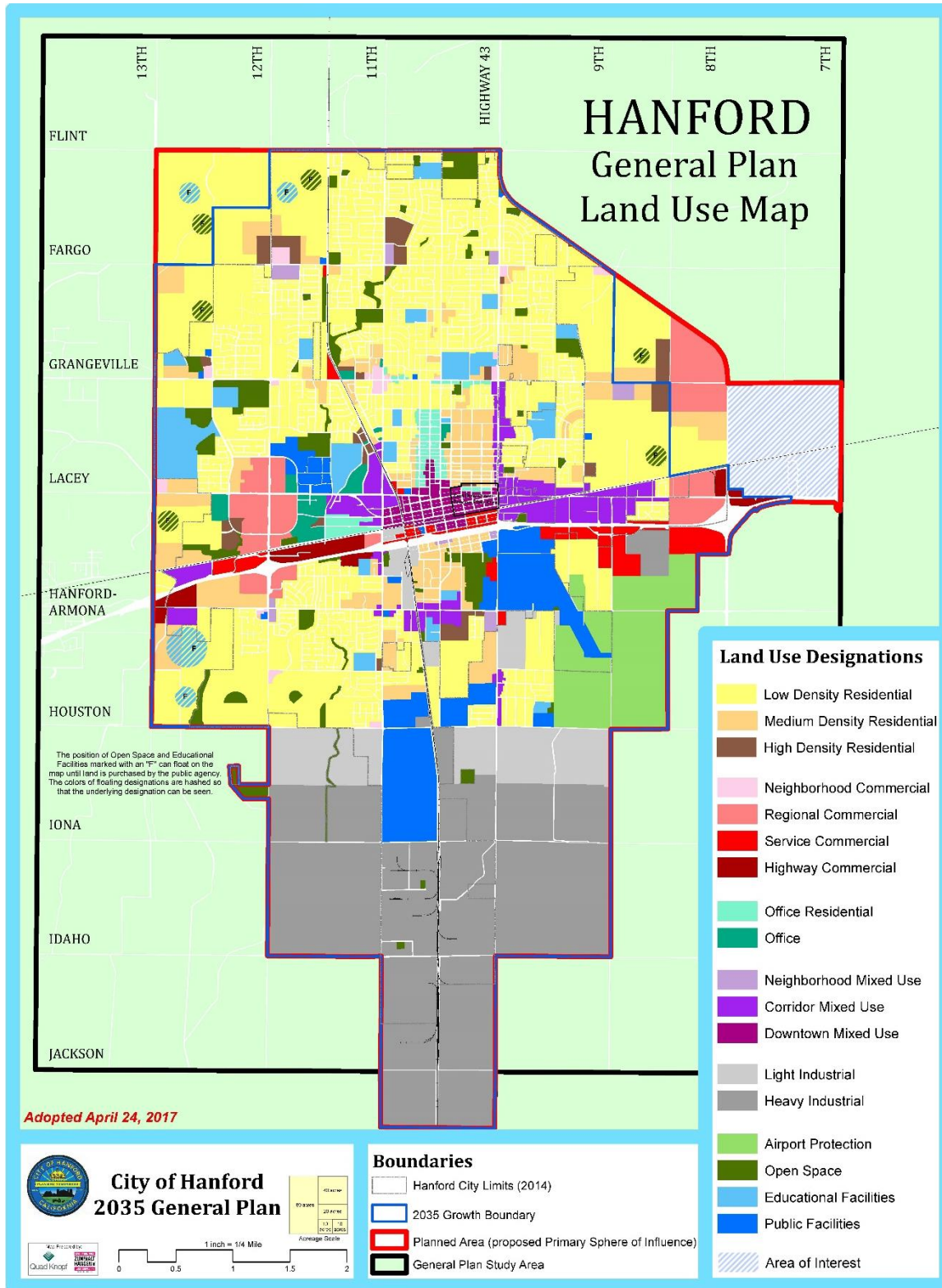
### C.2.7 Development Trends

The City of Hanford is committed to preserving its unique identity and defined boundaries encompassed by valuable agricultural land, often constrained by Williamson Act contracts that forbid development. The City’s downtown is further enriched through redevelopment, building upon prior efforts to enhance its prominence. Also, because Handford’s General Plan contains goals and policies that promote a compact development pattern and promote infill development and the City has a relatively compact downtown surrounded by agricultural lands, this helps relieve development pressure on nearby farmlands and creates opportunities for infill development.

The City is also meeting climate change regulations by taking action in emissions reduction and aligning with the countywide Climate Action Plan. This effort involves integrating policies with the Countywide Regional Transportation Plan (RTP) and San Joaquin County Blueprint to foster sustainable growth while conforming to Senate Bill 375. Development currently prioritizes a comprehensive transportation network and combines land use and circulation planning for growth. As land uses evolve, Hanford must also reassess park, trail, and open space needs, given limited natural open space within its boundaries. Figure C-2 below is the Land Use Diagram included in the General Plan 2035.



Figure C-2 City of Hanford, Land Use Diagram, General Plan 2035



Source: Hanford General Plan 2035





As shown in the figure, most of the City’s downtown consists of mixed uses with highway and corridor uses on both the west and east ends and industrial towards the south end of the City. According to the City LPT since 2012 (about a 10-year period), the City has issued approximately 188 commercial permits and 2,515 residential permits. Most commercial development during this time took place along 12th Avenue, near SR 198, and along Lacey Boulevard near the intersection of SR 198 and SR 43. Residential growth has been primarily located in the northwest quadrant of the City (near Fargo and Centennial and Flint and 11th Ave.), with some additional development near Houston and 12th Avenue on the southwest quadrant of the City. While the City has processed new building permits for single-family and multi-family dwelling units, the majority of these have been in areas designated for residential land uses. This growth also occurred outside flood hazard areas. The City’s Code Enforcement Division and the Fire Department also regularly monitor these development areas to limit structural fire, wildfire, and public health and safety risks. Development over the past decade has also been limited to the areas within the City’s 2035 growth boundary, thereby limiting development in hazard areas, and the overall net vulnerability of the City.

### C.2.8 Future Development

The areas located in the SOI shown in Table C-7 are areas the City may grow into and are potentially slated for future development. Understanding the potential hazard exposure in the area can help to mitigate the impacts of events before development occurs in those areas. During this plan update process parcel analysis was conducted using the SOI and overlaid with available hazard risk layers to determine where future development may be at risk of natural hazard events. The results of the analysis have been integrated into the applicable hazard sections: dam incidents and flooding. Table C-7 is the summary of the SOI total exposure for the City of Hanford.

**Table C-7 Sphere of Influence Total Exposure Summary**

Property Type	Improved Parcel Count	Building Count	Improved Value	Estimated Content Value	Total Value
Agricultural	38	40	3,340,735	\$3,340,735	\$6,681,470
Commercial	46	168	9,192,159	\$9,192,159	\$18,384,318
Exempt	38	49	4,237,348	\$4,237,348	\$8,474,696
Industrial	15	20	60,247,214	\$90,370,821	\$150,618,035
Multi-Family Residential	2	4	164,478	\$82,239	\$246,717
Multi-Use	39	56	5,738,794	\$5,738,794	\$11,477,588
Residential	590	633	61,621,380	\$30,810,690	\$92,432,070
<b>Total</b>	<b>768</b>	<b>970</b>	<b>144,542,108</b>	<b>\$143,772,786</b>	<b>\$288,314,894</b>

Source: Kings County Assessor, WSP analysis



### C.3 HAZARD IDENTIFICATION AND SUMMARY

The City of Hanford LPT identified the hazards that affect the City and summarized their frequency of occurrence, spatial extent, potential magnitude, and significance specific to their community (see Table C-8). There are no hazards that are unique to Hanford, although the hazard risk in the City varies and is distinct from the hazard risk in the County’s planning area. The purpose of this section is to profile the City of Hanford’s hazards where different from the County and assess the City’s unique vulnerabilities.

The hazards profiled in the County MJHMP Base Plan discuss the overall impacts to the County’s planning area. This information is summarized in the hazard description, geographic extent, magnitude/severity, previous occurrences, and probability of future occurrences. The information in the City of Hanford’ risk assessment summarizes all priority hazards, and specifically those that vary from the County’s planning area. The hazard profile information is organized in a similar format here as a way to identify priority hazards for mitigation purposes.

Table C-8 summarizes the hazards profiled in the County’s planning area and risk assessment to provide a way for the LPT to evaluate which hazards are addressed in their General Plan Safety Element and which hazards are relevant and priority hazards for the City. The City’s General Plan Health, Safety, and Noise Element addressed drought, earthquake, extreme heat, flood, dam failure, fog, freeze, tornado, structure fire, hazardous materials and brownfields, and noise. Among the hazards addressed in the City’s General Plan Health, Safety, and Noise Element, drought, earthquake, extreme temperatures, flood, dam failure, fog, and tornado are further addressed in this Annex while wildfire is addressed in the Base Plan.

**Table C-8 City of Hanford –Hazard Profiles**

Hazard	Geographic Area	Probability of Future Occurrence	Magnitude/Severity (Extent)	Overall Significance	Priority Hazard?
Agriculture Pest and Disease	Extensive	Likely	Critical	Low	No
Cyber-Attack	Significant	Occasional	Critical	Medium	Yes
Dam Incidents	Extensive	Unlikely	Critical	Medium	Yes
Drought	Extensive	Likely	Critical	High	Yes
Earthquake	Limited	Occasional	Critical	Medium	Yes
Extreme Temperatures: Freeze and Heat	Extensive	Highly Likely	Limited	High	Yes
Flood	Extensive	Highly Likely	Critical	Medium	Yes
Land Subsidence	Extensive	Likely	Limited	Medium	Yes
Landslide	Significant	Occasional	Negligible	Low	No
Public Health Hazards: Pandemics/Epidemics	Extensive	Highly Likely	Critical	Medium	Yes
Severe Weather: Dense Fog	Extensive	Highly Likely	Critical	Medium	Yes
Severe Weather: Heavy Rain, Thunderstorms, Hail, and Lightning	Extensive	Highly Likely	Critical	Medium	Yes
Severe Weather: High Wind/Tornado	Extensive	Highly Likely	Critical	Medium	Yes
Wildfire	Limited	Likely	Negligible	Low	No



Hazard	Geographic Area	Probability of Future Occurrence	Magnitude/Severity (Extent)	Overall Significance	Priority Hazard?
<b>Geographic Area</b> Limited: Less than 10% of planning area Significant: 10-50% of planning area Extensive: 50-100% of planning area  <b>Probability of Future Occurrences</b> 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.		<b>Magnitude/Severity (Extent)</b> 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  <b>Significance</b> Low: minimal potential impact Medium: moderate potential impact High: widespread potential impact			

### C.3.1 Vulnerability Assessment

The intent of this section is to assess Hanford’s vulnerability that is separate from that of the planning area as a whole, which has already been assessed in Section 4 Hazard Identification and Risk Assessment of the Base Plan. This vulnerability assessment analyzes the population, property, and other assets at risk of hazards ranked as a priority.

The information to support the hazard identification and risk assessment was based on a combination of the previous 2012 LHMP for the City and County and jurisdiction-specific information collected during the 2022-2023 update. A Plan Update Guide and associated worksheets were distributed to each participating municipality or special district to complete during the 2022-2023 update process. Information collected was analyzed and summarized in order to identify and rank all the hazards that could impact anywhere within the County, as well as to rank the hazards and identify the related vulnerabilities unique to each jurisdiction.

Each participating jurisdiction was in support of the main hazard summary identified in the Base Plan (see Table 4-3). However, the hazard summary rankings for each jurisdictional annex may vary due to specific hazard risks and vulnerabilities unique to that jurisdiction. The information in this Annex helps differentiate the jurisdiction’s risk and vulnerabilities from that of the overall County, where applicable.

**Note:** The hazard “Significance” reflects the overall ranking for each hazard and is based on a combination of the City of Hanford’s LPT input from the Data Collection Guide, the risk assessment developed during the planning process (see Section 4 of the Base Plan), and the set of problem statements developed by the City LPT. The hazard significance summaries in Table C-8 above reflect the hazards that could potentially affect the City. The discussion of vulnerability for each of the following hazards is located in Section C.3.6 Estimating Potential Losses, which includes an overview on the local issues and areas of concern associated with the hazard, a problem statement for priority hazards, and a quantitative risk assessment, where spatial data is available. Based on this analysis, the priority hazards for mitigation purposes for the City of Hanford are identified below.

- Cyber-Attack
- Dam Incidents
- Drought
- Earthquake



- Extreme Temperatures: Freeze and Heat
- Flood
- Land Subsidence
- Public Health Hazards: Pandemics/Epidemics
- Severe Weather: Dense Fog
- Severe Weather: Heavy Rain, Thunderstorms, Hail, and Lightning
- Severe Weather: High Wind/Tornado

Public Health Hazards were ranked significant hazards but are not addressed further in this vulnerability assessment as the risk and exposure are similar to the overall County risk and exposure, and the potential for losses are difficult to quantify specific to the City of Hanford. Additionally, hazards assigned a significance rating of Low, such as landslide and wildfire hazards, and which do not differ significantly from the County ranking (e.g., Low vs. High) are not addressed further and are not assessed individually for specific vulnerabilities in this Annex.

While wildfire was not rated as a significant hazard for the City of Hanford and therefore not addressed further in Section C.3.6, an event was noted by the City's LPT. An urban fire event occurred on May 19, 2022, when a significant commercial structure fire occurred at 750 E Lacey Boulevard. The event resulted in major damage to the commercial property, with property damage estimated at \$810,000. Fortunately, there were no reported injuries or fatalities as a result of the fire. The fire had a significant impact on the local business, as it forced a shutdown for several days. This disruption displaced hotel occupants and resulted in limited room availability in the affected area. The insured losses amounted to the full extent of the property damage, which was \$810,000. It is considered likely for an event of similar scale and magnitude to happen in the future. The City has many ongoing programs designed to reduce fire losses, such as preventative public education programs, Red Book to Recovery, and pre-incident planning.

### C.3.2 Assets

This section considers Hanford's assets at risk, including values at risk, critical facilities and infrastructure, historic assets, economic assets and growth and development trends.

### C.3.3 Property Exposure

The following data on property exposure is derived from the Kings County 2023 Assessor's parcel and address point data. This data should only be used as a guideline to overall values in the City as the information has some limitations. It is also important to note that in the event of a disaster, it is generally 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 and is not included in the values below. Table C-9 shows the exposure of properties (e.g., the values at risk) broken down by property type for the City of Hanford.

**Table C-9 City of Hanford Property Exposure by Type**

PROPERTY TYPE	IMPROVED PARCEL COUNT	BUILDING COUNT	IMPROVED VALUE	CONTENT VALUE	TOTAL VALUE
Agricultural	28	34	\$2,925,519	\$2,925,519	\$5,851,038
Commercial	794	1,534	\$714,496,080	\$714,496,080	\$1,428,992,160
Exempt	96	155	\$26,175,037	\$26,175,037	\$52,350,074
Industrial	97	130	\$100,067,929	\$150,101,894	\$250,169,823
Multi-Family Residential	489	3,008	\$239,982,926	\$119,991,463	\$359,974,389
Multi-Use	49	61	\$7,535,179	\$7,535,179	\$15,070,358
Residential	15,569	15,827	\$2,545,729,015	\$1,272,864,508	\$3,818,593,523
<b>Total</b>	<b>17,122</b>	<b>20,749</b>	<b>\$3,636,911,685</b>	<b>\$2,294,089,679</b>	<b>\$5,931,001,364</b>

Source: Kings County Assessor, WSP analysis



### C.3.4 Critical Facilities and Infrastructure

For the purposes of this plan, a critical facility is defined as one that is essential in providing utility or direction either during the response to an emergency or during the recovery operation. FEMA sorts critical facilities into seven lifeline categories as shown in Figure 4-1 in the Base Plan. Critical facilities and other community assets are important to protect in the event of a disaster.

Table C-10 shows a summary of the critical facilities within the City of Hanford and Figure C-3 shows their locations. Critical facilities and other community assets as important to protect in the event of a disaster.

**Table C-10 Critical Facilities within the City of Hanford**

LIFELINE	# OF CRITICAL FACILITIES
Communication	32
Energy	7
Food, Water, Shelter	6
Hazardous Materials	10
Health and Medical	14
Safety and Security	54
Transportation	9
<b>Total</b>	<b>132</b>

Source: Kings County, HIFLD, NID, DWR, WSP analysis

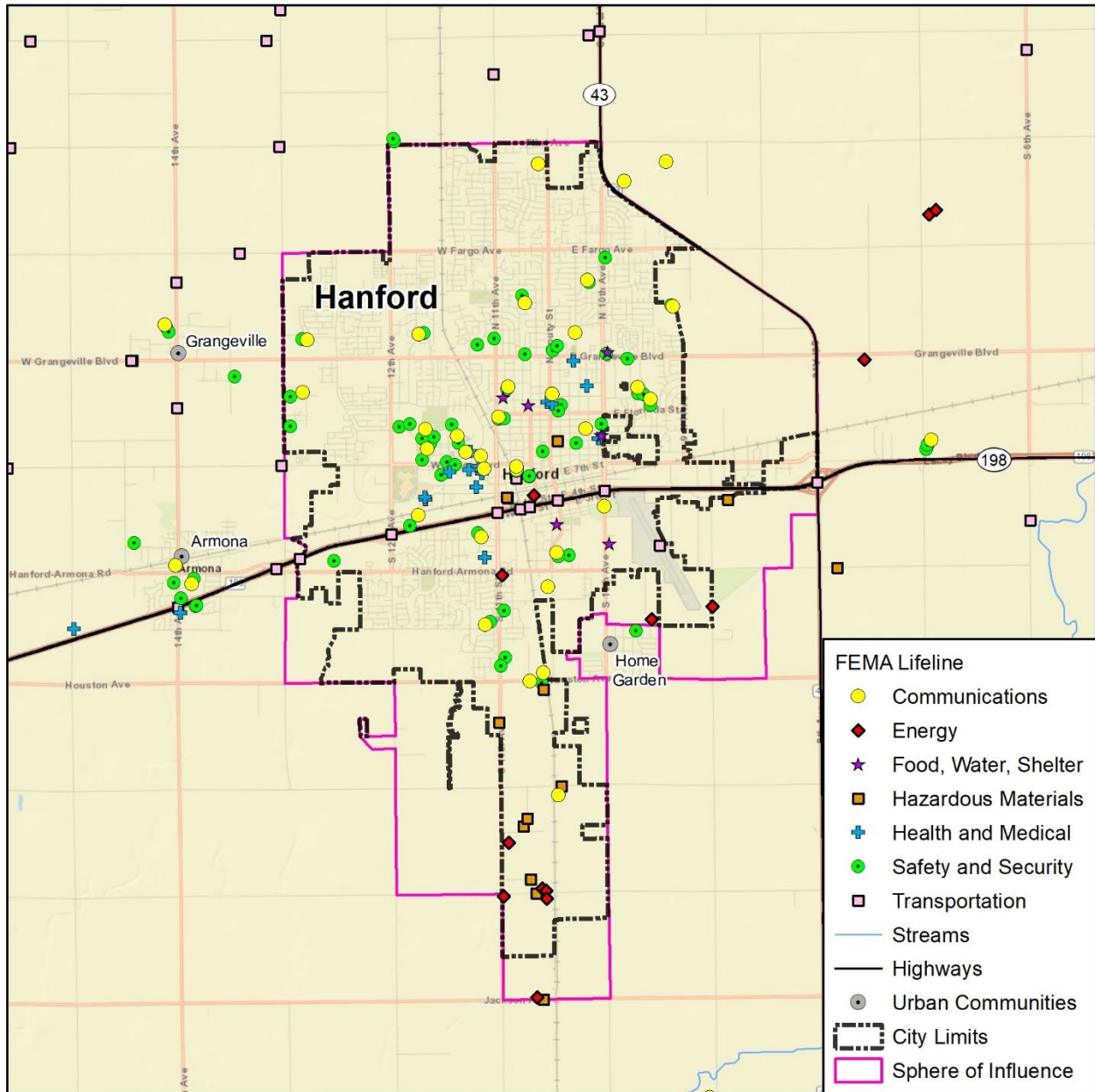
Within the City of Hanford, the following are considered critical facilities:

- Kings County Office Of Emergency Services
- American Ambulance Incorporated (Three Facilities)
- College Of The Sequoias - Hanford Education Center
- Kings County Juvenile Detention Center
- Kings County Jail
- Hanford Fire Department
- Kings County Sheriff's Department
- Hanford Police Department
- Amtrak Station Hanford, CA
- Water supply lines and wells
- Wastewater treatment plant, pumping stations, and trunk lines
- Major electrical transmission lines and substations
- Major communication lines and microwave transmission facilities
- Major public and private schools
- Public Library
- Hospital facilities, nursing homes and dialysis centers





Figure C-3 City of Hanford Critical Facilities



Map compiled 9/2023;  
Intended for planning purposes only.  
Data Source: Kings County,  
HIFLD, NID, DWR

0 1 2 Miles



### C.3.5 Historic, Cultural and Natural Resources

Table C-11 lists the historical resources found on the National Registry of Historic Places (NRHP) located in the City of Hanford:

Table C-11 Historical Resources within the City of Hanford

PROPERTY NAME	REGISTER	JURISDICTION	DATE LISTED
Hanford Carnegie Library	National and State	Hanford	12/17/1981
Kings County Courthouse	National and State	Hanford	9/21/1978



PROPERTY NAME	REGISTER	JURISDICTION	DATE LISTED
Taoist Temple	National and State	Hanford	6/13/1972

Source: National Registry of Historic Preservation (NRHP), California Register of Historic Resources (CRHR)

There are also a number of resources within Hanford that contribute to its historic character and unique culture yet are not officially listed as historic resources: Clark Center for Japanese and Art & Culture, Temple Theater, Fox Theater, Kings Art Center, Hanford Civic Auditorium, and the Hanford Veteran's Memorial Building.

Natural resources are important to include in benefit-cost analyses for future projects and may be used to leverage additional funding for projects that also contribute to community goals for protecting sensitive natural resources. According to the City's General Plan Open Space, Conservation, and Recreation element, the City's Planning Area has a variety of natural and altered habitats supporting a diverse assemblage of plant and animal species.

Hanford is located in the Tulare Lake Hydrologic Study Area as defined by the California Department of Water Resources. The primary source of surface water in this area stems from Sierra Nevada Mountain Range precipitation. Hanford's geological composition primarily consists of alluvial deposits, contributing to the formation of productive groundwater aquifers with substantial water storage capabilities. The San Joaquin Valley groundwater basin has an estimated storage capacity of 570 million acre-feet, with approximately 80 million acre-feet deemed usable (Hanford General Plan 2014).

The Planning Area encompasses two distinct natural vegetation zones: Riparian Woodlands and Valley Oak Woodlands. Riparian Woodlands are some of the richest wildlife habitats in the State. The State Department of Conservation mapping program has identified two sections of riparian woodlands within the Planning Area. These sections are situated on the western side of 12th Avenue, between Houston and Iona avenues, and along the western side of 13th Avenue, north of Iona Avenue. The Valley Oak Woodlands play a crucial role by providing essential resources such as food, shelter, nesting grounds, and pathways for diverse wildlife species. This habitat's notable feature, the large oak trees, offers nesting opportunities for various birds of prey, including the Swainson's hawk.

The California Natural Diversity Database (CNDDDB) lists 18 special-status species that have been known to occur within and around the Planning Area, some of which are listed as Threatened by the U.S. Fish and Wildlife Service and/or the California Department of Fish and Wildlife, including Swainson's hawk and Steelhead trout (see Table 4-7 of the Base Plan). Awareness of natural assets can lead to opportunities for meeting multiple objectives. For instance, protecting wetlands areas protects sensitive habitat as well as attenuates and stores floodwaters.

### C.3.6 Estimating Potential Losses

#### C.3.6.1 Cyber-Attack

The susceptibility to cyber-attacks extends across all servers, networks, and users, making them potential targets for security breaches and malicious activities. A specific incident reported by the Privacy Rights Clearinghouse occurred in the City of Hanford. An office burglary also occurred at the Yanez Dental Corporation involved three computers being stolen. This breach exposed critical patient information, including names, social security numbers, dates of birth, addresses, telephone numbers, and other sensitive data. While large data breaches such as this are generally widely reported, minor cyber-attacks such as phishing emails often go unreported.

Cyber-attack is ranked an overall medium significance hazard for the City of Hanford and all jurisdictions within Kings County. However, jurisdictions with greater populations and therefore more people exposed to a cyber-attack event are at a higher risk. Refer to Chapter 4 for a discussion of the cyber-attack risk relative to the City of Hanford and Kings County.



### C.3.6.2 Dam Incidents

During the 2022-2023 plan update process, the HMPC and City's LPT highlighted concerns regarding the Pine Flat Dam situated on the Kings River in Fresno County. This dam holds the potential to trigger dam inundation flooding in the City of Hanford, constituting a considerable threat due to its high hazard classification. Despite the significance of assessing potential inundation areas for all dams, such data remains inaccessible. Reasons include the lack of available GIS data and restrictions on releasing such information in public documents. Consequently, a quantitative analysis of dam inundation exposure could not be conducted.

However, based on dam inundation mapping done for the 2035 Kings County General Plan Safety Element, the overall northeastern County, including the cities of Hanford and Lemoore, would be impacted by a dam failure at the Pine Flat Dam. According to the Health, Safety, and Noise Element, if the Pine Flat Dam were to breach at full capacity, it would take approximately five hours to reach the County. If such an incident were to occur, those in the dam inundation area with limited mobility or who have no access to vehicles, as well as those in isolated or mobile housing, would be at the greatest risk of harm.

Dam incidents are ranked an overall medium significance hazard for the City of Hanford. Refer to Chapter 4 for a discussion of dam incident risk relative to the City of Hanford and Kings County.

### C.3.6.3 Drought

The City of Hanford currently provides domestic water to residential, commercial, industrial and institutional customers within the City limits. In 2020, the City's Utilities Department provided 11,714 acre-feet (AF) of water to approximately 61,326 residents (including 651 accounts outside of the City limit) through 17,965 municipal connections (UWMP 2021).

The City currently uses groundwater as the sole source of water supply, with wells extracting water from the Tulare Lake Subbasin of the San Joaquin Valley Groundwater Basin. The Tulare Lake subbasin has a surface area of approximately 818 square miles and estimated to have a total storage capacity of 17,100,000 AF to a depth of 300 ft and 82,500,000 AF to the base of fresh groundwater (UWMP 2021).

In order to reduce the burden on groundwater resources during periods of prolonged drought, the City has devised a Water Shortage Contingency Plan, aimed at curtailing wasteful water usage and promoting community conservation efforts. Typically, in response to regional supply vulnerability, Kings County Water District (KCWD) prompts urban water suppliers to adopt both voluntary and mandatory water conservation measures. Historical monitoring of groundwater within the Tulare Lake subbasin by KCWD indicates stable groundwater conditions, even during prolonged multi-year droughts. The Tulare Lake groundwater subbasin's well-maintained levels can be attributed to KCWD's implementation of conjunctive use programs. As a result of this management, the Tulare Lake subbasin is considered a reliable source of supply during water shortages. While pumping may exceed recharge during a drought, basin management practices have prevented long-term adverse conditions.

The City is susceptible to drought and related climate change considerations. Based on the City's location and current climate, the most likely changes are related to increasing average temperature, intensifying storm events, and periods of extended drought. Other climate change effects such as increased precipitation variability may result in the depletion of stored groundwater availability, and in turn reduced crop productivity, and potential higher water costs. Changes in annual precipitation and temperature could have an impact on the City's overall water use as well as available supply volumes.

The City's water management efforts have evolved over time. In 1976, the Water Waste Ordinance mandated meter installations for new water system connections, with penalties for violations leading to meter installation costs borne by the customer. In 1986, the ordinance was revised to include flow restrictors if violations persisted. In 2015, penalty increases were instituted, increasing the penalty for the second violation to \$50 and the fourth violation to \$200. The City requires water meter installation for customers installing pools or substantial home additions. The transition to the automated meter reading metering system has been a focus, while billing is currently based on monthly rates per 100 cubic feet. A rate increase was adopted in 2015 to fund system operation, improvement, and debt service. Additionally, the City has implemented aggressive State mandates to help curb drought impacts.



The City is actively engaged in diverse public information initiatives to encourage water conservation and enhance public understanding. It employs various methods such as brochures, radio/TV broadcasts, school programs, and videos to disseminate water use information. The City website also features resources on water conservation. Information is circulated through channels like local newspapers, monthly bill inserts, farmers markets, and the Hanford Mall, offering water-saving tips and outdoor water use reminders. As part of the Kings County Water Education Committee (KCWEC), the City presents at local schools about water safety and conservation. KCWEC contributes by distributing book covers containing water conservation and safety details to schools.

The Utilities Superintendent is responsible for coordinating and expanding the City's water conservation program as well as providing useful water conservation information to residents through the various public outreach programs. The City employs part-time staff to enforce water use prohibitions and write violations; the City also recently hired a full-time water conservation technician to assist with the enforcement of the water conservation program. The City also implements a Water Efficient Landscape Ordinance, aligned with Assembly Bill 325, which guides landscaping practices and emphasizes water efficiency, supervised by the Parks Superintendent. It categorizes zones based on water needs, using multipliers to manage landscaped area water usage.

In conclusion, drought hazards are ranked an overall high significance hazard for the City of Hanford, but this is mainly due to the City's reliance on only groundwater for its water supply. The City of Hanford's comprehensive approach to water management reflects its commitment to providing a sustainable and reliable water supply to its residents in the face of recurring drought challenges. From utilizing groundwater recharge programs within the Tulare Lake Subbasin to enacting a Water Shortage Contingency Plan that balances demand during droughts, the City demonstrates a proactive stance toward preserving water resources. The evolving strategies, such as water waste ordinances, metering system upgrades, and information campaigns, also highlight the City's adaptability and dedication to fostering water conservation. Further, by engaging with the KCWEC and implementing educational initiatives, the City actively involves its community in the broader goal of water sustainability. The Utilities Superintendent also collaborates with staff to enforce regulations and the Parks Superintendent oversees water-efficient landscaping efforts. Through these efforts, the City applies a holistic approach to water management that ensures the welfare of both current and future generations and also demonstrates existing mitigation practices are already in place for a potential drought impacts.

Refer to Chapter 4 for a discussion of drought risk relative to the City of Hanford and Kings County.

#### *C.3.6.4 Earthquake*

The City of Hanford lies within a seismically active area. As mentioned in the Base Plan, no major fault systems are known to exist in Kings County. However, minor surface ruptures could occur in areas of minor faulting, which occur primarily in the southwestern part of the County along the Kettleman Hills mountain range. Moreover, the San Andreas Fault is located less than four miles west of the Kings County line.

As shown in Figure 4-14 Kings County Earthquake Ground Shaking Potential and Nearby Faults of the Base Plan, earthquake hazard is the most severe in the southwest of Kings County. The potential for ground shaking in the Hanford area ranges from 10-60%g, while ground shaking at the southwestern County line can reach 100% g and above.

There have not been any damaging earthquakes greater than magnitude 6.0 recorded in Kings County in over 200 years, though several have been very close. Geologic studies estimate that over the past 1,400 to 1,500 years, large earthquakes have occurred at about 150-year intervals on the southern San Andreas fault. As the last large earthquake on the southern San Andreas fault was the Fort Tejon earthquake in 1857, that section of the fault is considered a likely location for an earthquake within the next few decades (Hanford General Plan 2014). Ground shaking was also felt in Hanford during the Coalinga earthquake with a magnitude of 6.4 in 1983.

In certain cases, the City has required developers to conform to the most recent California Building Code. These improvements reduce vulnerability and risks.



Refer to the Base Plan for details on earthquake hazard’s potential impact on the City of Hanford and Kings County.

### C.3.6.5 Extreme Temperatures: Freeze and Heat

According to data from the Western Regional Climate Center for the Hanford 1 S weather station (043747) for the period of record from 1899-2016, the extreme maximum temperature in July was 116°F, and extreme minimum temperature in January was 14°F. Thus, the City of Hanford experiences a broad range of temperatures and is vulnerable to extremes on either end of the spectrum. The station summary for the Hanford 1 S station is displayed in Table C-11 below.

**Table C-12 Period of Record General Temperature Summary for Hanford 1 S Station**

	Jan.	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Average Temperatures (degrees Fahrenheit)												
Average Maximum Temperature	54.7	61.9	67.5	74.9	83.6	91.4	97.8	96.1	90.5	80	66.2	55.4
Average Minimum Temperature	44.9	50.2	54.8	60.6	68	74.8	80.2	78.2	73	63.7	52.5	45
Average Temperature	35.2	38.6	42.1	46.4	52.5	58.3	62.5	60.4	55.5	47.4	38.8	34.6
Extreme Maximum Temperatures (degrees Fahrenheit)												
Extreme Maximum Temperature	95	94	95	100	107	114	116	115	110	101	94	77
Extreme Minimum Temperatures (degrees Fahrenheit)												
Extreme Minimum Temperature	14	18	23	20	30	36	44	40	35	28	18	15

Source: WRCC 2023

The City’s emergency response strategy encompasses both sheltering and heating/cooling provisions. Two primary emergency shelters, the Longfield Center and the Civic Auditorium, have been distinctly identified as a heating and cooling center. However, there remains a need to establish a comprehensive global matrix dictating the activation and deactivation protocols for heating and cooling centers during crises. Effective coordination for this initiative involves key entities such as the National Weather Service (NWS) Hanford, Kings County Office of Emergency Services (OES), and the municipal facilities coordinators.

The community benefits from public education programs tailored to enhance safety awareness. These programs encompass various platforms, including sessions at all PK-6 grade schools, participation in the Thursday Night Marketplace events, incorporation into fire station tours, and integration into other public safety affairs held throughout the year. This educational effort encompasses the dissemination of informative posts by the NWS-Hanford and the circulation of press releases from the fire department that pertain to matters concerning community cooling centers.

Extreme temperatures are an overall high significance hazard in Hanford. Refer to Chapter 4 in the Base Plan for a discussion of the extreme temperature risk relative to the City of Hanford and Kings County.

### C.3.6.6 Flood

The primary types of flood events in Kings County that may impact the City of Hanford are riverine and urban or localized stormwater flooding. Flooding could also occur as a result of dam failure. Regardless of the type of flood, the cause is often the result of severe weather and excessive rainfall, either in the flood area, upstream, or from winter snowmelt. The extent of flood severity is influenced by various factors, encompassing the intensity and duration of rainfall, the landscape’s topography, and the type of ground cover in the region. An abundance of rainfall within a brief timeframe can lead to sudden flash floods. Conversely, even a modest amount of rain can trigger flooding, particularly in regions with frozen or saturated soil from prior wet spells. Furthermore, floods might occur if rainfall accumulates over impermeable surfaces like extensive parking lots, paved roads, or densely developed zones.





The repercussions of flooding encompass a broad spectrum of effects, including injuries and loss of life, financial setbacks, psychological trauma, as well as damage to infrastructure such as roads and bridges, and properties. This damage spans across different aspects including structural elements (such as foundations), electrical systems (outlets, wiring, meters, etc.), mechanical equipment (washers, dryers, furnaces, water heaters, etc.), and finishing touches like floors and walls.

### Floodplains and Special Flood Hazard Area

Several federal, state, and local organizations utilize the magnitude of flooding linked to a 1 percent likelihood of happening, often termed the "base flood, or 100-year floodplain as a regulatory benchmark. This predefined boundary, also known as the Special Flood Hazard Area (SFHA) serves as a practical method for evaluating susceptibility and potential hazards within regions prone to flooding. For instance, FEMA possesses accessible maps that display the scope of the base flood and the projected water depths in those areas.

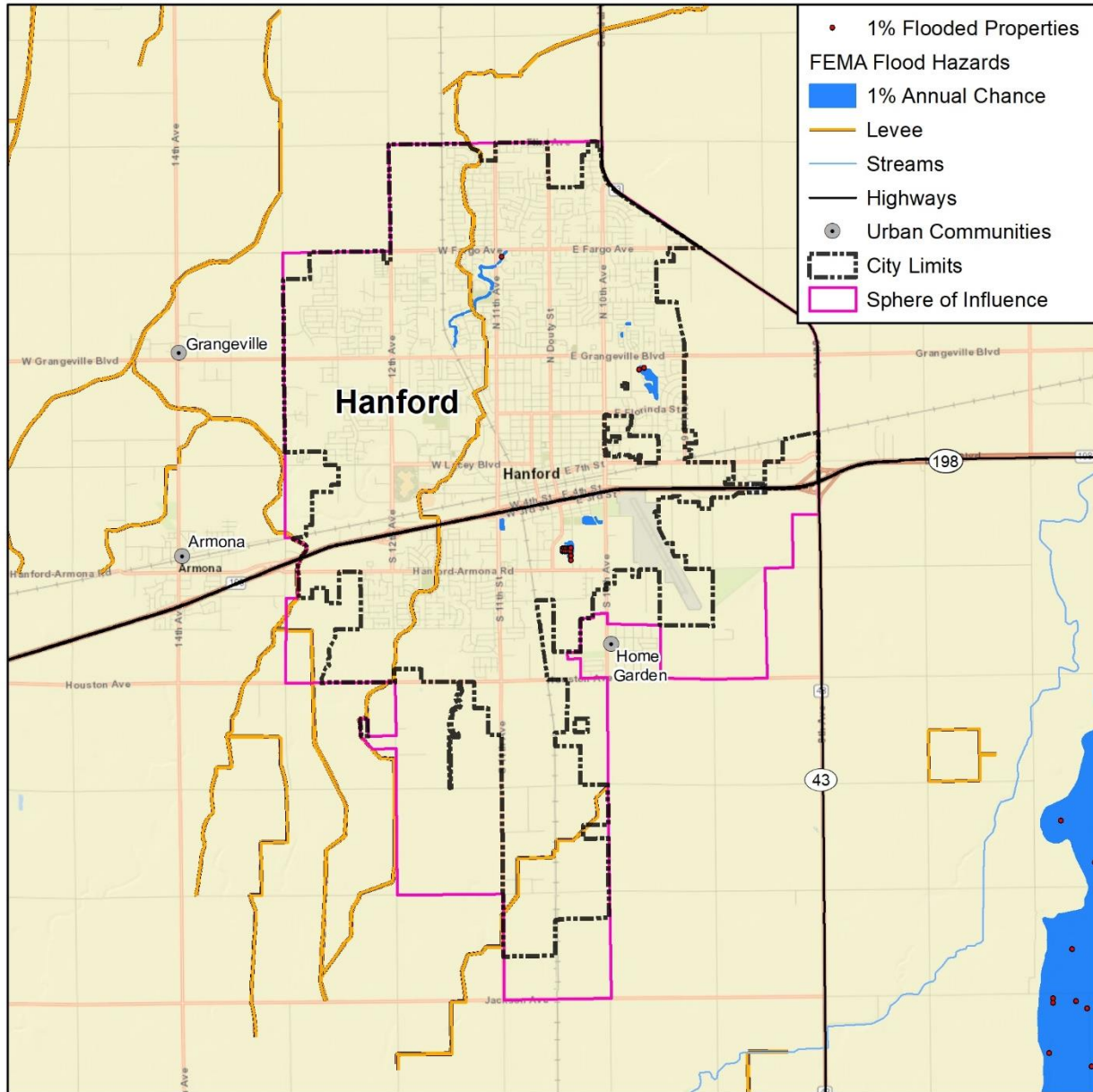
A floodplain refers to a relatively flat or gently sloping area of land adjacent to a river, stream, or other water body that is prone to periodic flooding. During times of increased water flow, such as heavy rainfall or snowmelt, the floodplain serves as a natural area for excess water to spread out and temporarily inundate. Floodplains are crucial for managing and mitigating flood risks, as they help to absorb and distribute floodwaters, protecting nearby structures and communities from the full impact of flooding. These areas often support fertile soil and diverse ecosystems, but their susceptibility to flooding requires careful code enforcement and management strategies to ensure the safety and well-being of residents and the environment. The physical risks associated with potential flooding and the regulatory requirements for floodplain management are also important considerations when decisions are being made regarding future land use throughout the City of Hanford.

Flood hazards for the City of Hanford are shown in Figure C-4. As shown in the figure, only a few parcels are exposed to flood hazards. The rest of Hanford lies outside the 100-year floodplain designated by FEMA. Based on the history of flooding in Kings County, the City of Hanford and surrounding areas are considered likely to be at risk to future localized flooding, as parts of the City have been prone to local flooding problems associated with poor drainage issues. Climate change is also expected to increase the intensity of major storms, which could create more frequent and severe flooding. In summary, there is risk to flooding in the City due to development in the floodplain and localized flooding issues such as stormwater and interior flooding.

A flood vulnerability assessment was completed during the 2022-2023 update, following the methodology described in Section 4 of the Base Plan. Table C-13 summarizes the values at risk in the City's 1% annual chance floodplain. None of the parcels located within the City Limit are exposed to 0.2% annual chance flood events.



Figure C-4 City of Hanford FEMA 1% & 0.2% Annual Chance Floodplains



Map compiled 7/2023;  
Intended for planning purposes only.  
Data Source: Kings County, DWR,  
National Levee Database,  
FEMA NFHL 6/17/2019

0 1 2 Miles





**Table C-13 City of Hanford FEMA 1% Annual Chance Flood Hazard, by Property Type**

Property Type	Improved Parcel Count	Building Count	Improved Value	Content Value	Total Value	Estimated Loss	Population
Agricultural	1	1	\$4,325	\$4,325	\$8,650	\$2,163	
Commercial	1	1	\$6,900	\$6,900	\$13,800	\$3,450	
Exempt	1	1	\$751,205	\$751,205	\$1,502,410	\$375,603	
Multi-Family Residential	1	9	\$2,986,560	\$1,493,280	\$4,479,840	\$1,119,960	28
Residential	1	1	\$269,146	\$134,573	\$403,719	\$100,930	3
<b>Total</b>	<b>5</b>	<b>13</b>	<b>\$4,018,136</b>	<b>\$2,390,283</b>	<b>\$6,408,419</b>	<b>\$1,602,105</b>	<b>31</b>

Source: Kings County Assessor's Office; National Flood Hazard Layer Effective 6/17/2019; FEMA; WSP analysis

Based on this analysis, the City of Hanford has 13 buildings located within the 1% annual chance floodplain for a total value of over \$6.4 million. The potential loss is estimated at over \$1.6 million if these areas were inundated by the 1% annual chance flood. The population at risk was calculated for the 1% annual chance floodplains based on the number of residential properties at risk and the average number of persons per household (3.09). There are an estimated 31 persons at risk to 1% annual chance flood.

The Department of Water Resources (DWR) developed Best Available Maps (BAM) following legislation enacted in 20017 (Senate Bill 5) for the 100-, 200-, and 500-year floodplains located within the Sacramento-San Joaquin Valley. The BAM maps contains the best available information on flood hazards in cities and counties. While the BAM maps do not replace existing FEMA regulatory floodplains shown on the Flood Insurance Rate Maps (FIRM) they identify potential flood risk in areas that may warrant further studies and are intended to facilitate land use decision making. There is no DWR Awareness 100-year floodplain located within the City of Hanford.

#### Critical Facilities at Risk

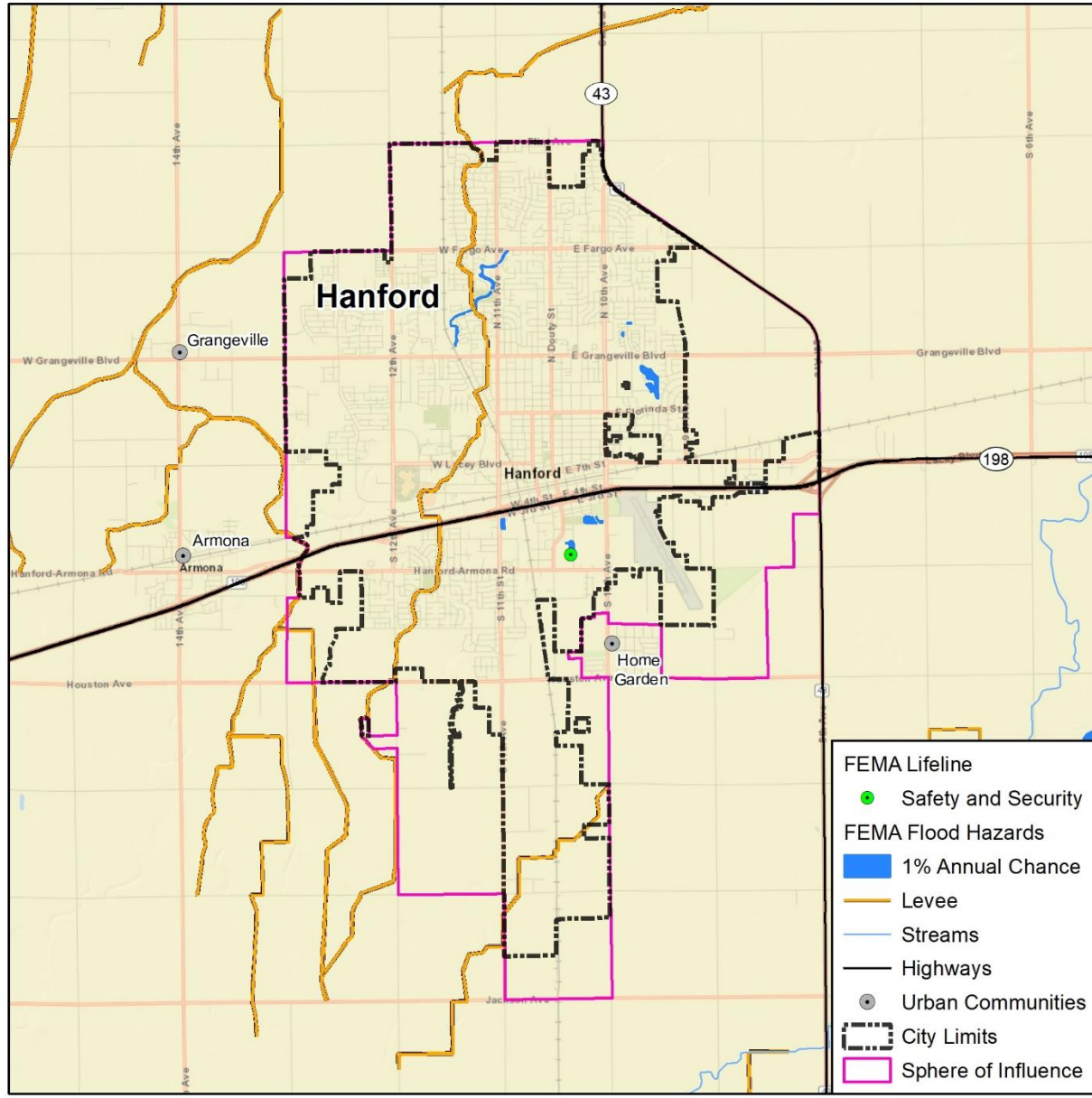
Critical facilities are those community components that are most needed to withstand the impacts of disaster as previously described. Table C-14 lists the critical facilities in the City's 1% annual chance floodplains. None of the facilities are located in 0.2% annual chance floodplains. Figure C-5 the location of the critical facilities in the City's 1% annual percent chance floodplains. Only one facility is potentially exposed to 1% annual chance flood events, which is Rosa Parks Learning Center. Impacts to any of the City's key wastewater facilities and infrastructure and conveyance systems would result in severe service disruptions to the community and subsequent costs associated with response and recovery.

**Table C-14 Critical Facilities at risk of 1% Annual Chance Flood Hazard, by FEMA Lifeline**

FEMA Lifeline	Count
Communications	-
Energy	-
Food, Water, Shelter	-
Hazardous Materials	-
Health and Medical	-
Safety and Security	1
Transportation	-
<b>Total</b>	<b>1</b>

Source: Kings County, HIFLD, NID, DWR, National Flood Hazard Layer Effective 6/17/2019; FEMA; WSP analysis

**Figure C-5 Critical Facilities at Risk of FEMA 1% & 0.2% Annual Flood Hazard**



Map compiled 9/2023;  
Intended for planning purposes only.  
Data Source: Kings County,  
FEMA NFHL 6/17/2019, HIFLD,  
NID, DWR

0 1 2 Miles



### Flood Insurance Coverage, Claims Paid, and Repetitive Losses

Flooding is the most common and costly natural disaster in the United States. In terms of economic disruption, property damage, and loss of life, floods are often referred to as "nature's number-one disaster." Consequently, flood insurance is typically not included in standard homeowner's and renter's insurance policies. To safeguard their property against flood-related losses, individuals are advised to acquire flood insurance through the National Flood Insurance Program (NFIP). Established by Congress in 1968 to mitigate the rising costs of federal disaster relief, the NFIP is administered by FEMA, a division of the U.S. Department of Homeland Security. It provides federally backed flood insurance to communities that adopt and enforce effective floodplain management ordinances aimed at reducing potential flood losses.





The NFIP offers flood insurance coverage to individuals residing in participating communities. Community membership is contingent on adopting and enforcing floodplain management and development regulations. The NFIP operates on the basis of voluntary community participation, regardless of size. In this context, a "community" refers to a political entity with the legal authority to implement and enforce floodplain management ordinances within its jurisdiction, including incorporated cities, towns, townships, boroughs, villages, or unincorporated areas of counties or parishes.

National flood insurance is only available in communities that apply for participation in the NFIP and commit to implementing prescribed flood mitigation measures. In return for adhering to basic floodplain management standards, local governments enable property owners to purchase modest levels of flood insurance coverage. Communities that adopt more comprehensive floodplain management measures can be promoted to the Regular Program, allowing local policyholders to access higher levels of insurance coverage.

Floodplain management activities also mitigate flood risk and involve both evaluating and permitting development within the SFHA, while also addressing equity and outreach. This entails raising new residential structures to or above the Base Flood Elevation (BFE), implementing floodproofing for non-residential structures, constraining development in floodways, strategically siting public utilities and facilities to minimize flood damage, and reinforcing foundations against floatation, collapse, or lateral shifting. These efforts prioritize fairness and engagement within flood-prone communities.

The City of Hanford joined the NFIP on March 18, 1987. NFIP Insurance data indicates that as of May 2023, there were 15 flood insurance policies in force in the City with \$4,667,000 of coverage. Two policies are located in A zones. 13 policies are located in B, C & X zones. 13 policies are for single family residential, one is for 2-4 family residential, and one is for other residential. There has been two historical claims that a total amount of \$2,246.38 in paid losses. According to the FEMA Community Information System accessed August 25, 2023, the City has no Repetitive Loss or Severe Repetitive Loss properties.

### Future Development

SOI flood analysis shows that none of the parcels located within the City's SOI are exposed to 1% or 0.2% annual chance flood events.

Flood hazards are ranked medium for the City of Hanford based primarily on localized flooding issues. Refer to Chapter 4 for a discussion of flood risk relative to the City of Hanford and the County.

#### *C.3.6.7 Land Subsidence*

Land subsidence is prevalent along the northeastern portion of Kings County. According to data from DWR, the City of Hanford has experienced moderate subsidence. Between 2015 and 2023, the City experienced vertical displacement of -2.5 to -5.5 feet. The southern portion of the City, which has experienced the most vertical displacement (between -5 to -5.5 feet), is currently zoned for industrial use. Any future development in this area will need to plan for the possibility of future increases in vertical displacement.

Land subsidence is an overall medium significance hazard for the City of Hanford and all jurisdictions within Kings County. Refer to Chapter 4 for a discussion of land subsidence risk relative to the City of Hanford and the County.

#### *C.3.6.8 Public Health Hazards: Pandemics/Epidemics*

All populations are vulnerable to public health hazards. Elder populations, young children, and individuals with pre-existing medical conditions are more likely to face long lasting impacts from communicable disease. These groups are at a higher risk of facing prolonged and often more serious impacts from infectious diseases due to their compromised immune systems or underdeveloped defense mechanisms.

While areas of high population density are likely to experience a greater number of cases due to a larger population, larger cities tend to have advantages in terms of access to medical resources. The availability of medical facilities, advanced healthcare services, and a concentration of healthcare professionals can contribute to a more robust response to disease outbreaks. However, the effectiveness of response doesn't





solely depend on the presence of medical resources. It also hinges on the coordination of public health interventions, early detection, and the implementation of preventative measures. In contrast, rural or less densely populated areas might have limitations in terms of immediate medical access, but their smaller populations can make it easier to implement containment strategies and monitor outbreaks closely.

Public health hazards are an overall medium significance hazard for the City of Hanford and all jurisdictions within Kings County. Refer to Chapter 4 for a discussion of public health hazards risk relative to the City of Hanford and the County.

### C.3.6.9 Severe Weather: Dense Fog

Thick fog, referred to as Tule fog, is a common meteorological phenomenon experienced in Kings County, primarily during the winter months, typically spanning from December through February. This fog formation transpires rapidly in the early morning hours and can persist for extended periods, often stretching over days to weeks. The NCEI Storm Events Database, covering the timeframe from 1996 to 2022, has documented a total of 333 dense fog occurrences in Kings County (as detailed in Table 4-65 of the Base Plan). 180 of these incidents, along with all eight associated injuries, were registered in Hanford. Among these fog events, 162 were characterized by visibility of less than a quarter mile, contributing to reported property losses amounting to \$550,000. Each event with recorded damages or injuries is summarized in Table C-15 below.

**Table C-15 Dense Fog Events in Hanford with Damages or Injuries (2003-2022)**

Date	Injuries	Property Damage	Summary
Feb. 4, 2003	3	\$20,000	Patchy dense fog with visibility less than 100 feet was between Hanford and Selma on the morning of the 4th.
Jan. 28, 2016	1	\$0	Four crashes that occurred near the City of Hanford. In one, a semi-truck driving eastbound on Highway 198 making a left turn in the fog was struck by a sedan. The driver suffered moderate injuries. The other crashes did not have any injuries reported.
Nov. 30, 2017	1	\$20,000	Visibility below a quarter mile was reported in Hanford. California Highway Patrol reported a two-vehicle collision north of Hanford on State Route 43 near the Dover Ave intersection which resulted in one minor injury.
Jan. 31, 2018	0	\$100,000	The fog became dense in several locations during the early morning hours. Several fog-related minor auto accidents were reported along State Route 198 near Hanford, where visibility was less than a quarter mile. Several school districts had delayed openings and cancelled morning bus service as a result of the widespread dense fog on the morning of the 31st
Jan. 23, 2019	0	\$50,000	A large upper ridge built inland into California on January 22. This ridge remained dominant over the region for several days and resulted in a period of dry weather. However, inversion conditions prevailed in the San Joaquin Valley and with mainly clear skies and light winds, dense fog became prevalent in some areas during the nighttime and morning hours. During the morning of January 23, dense fog impacted travel near Hanford and Visalia and a five-vehicle accident occurred at the intersection of 6th Ave. and Excelsior Ave., 7 miles NE of Hanford with visibility around 250 feet at the time of the accident. Several school districts delayed bus service.
Dec. 11, 2019	0	\$10,000	Visibility below a quarter mile was reported in Hanford. Five cars were involved in a collision at the intersection of SR 198 and 6th Ave east of Hanford.
Jan. 24, 2020	0	\$50,000	Visibility below a quarter mile was reported in Hanford. Several school districts either opened late or delayed or cancelled bus service. California Highway Patrol reported two multi-vehicle accidents near Caruthers due to dense fog.
Jan. 6, 2021	1	\$150,000	Hanford reported visibility below a quarter mile. A four-vehicle accident took place on SR 198 at 08:09 PST involving a big rig, a pickup truck and two cars. There was minor injury from the collision and visibility at both Hanford and Visalia was at an eighth of a mile at the time of the accident.



Date	Injuries	Property Damage	Summary
Nov. 21, 2021	0	\$50,000	Visibility below a quarter mile was reported in Hanford. California Highway Patrol reported visibility between 700 and 1000 feet on SR 198 between SR 43 and 19th Ave as well as a fog related 3 vehicle accident involving a big rig and two cars on westbound SR 198 at the intersection of 2nd Ave. that resulted in a closure of westbound SR 198 during the late morning hours.
Jan. 14, 2022	1	\$100,000	Visibility below a quarter mile was reported in Hanford. Several webcams showed visibility below 1000 feet. Several school districts either opened late or delayed or cancelled bus service. A ten-vehicle accident occurred on eastbound SR 198 just east of the SR 99 exchange east of Hanford. Visibility was reported be below 100 feet at the time by California Highway Patrol. This resulted in SR 198 being closed for over two hours.
Dec. 16, 2022	1	\$0	Visibility below a quarter mile was reported in Hanford. Several webcams showed visibility below 1000 feet. California Highway Patrol reported a single car accident on eastbound SR 198 near Road 48 at 1029 PST. One person was injured in the accident which was determined to be fog related.

Source: NCEI Storms Event Database 2023

Fog is an annual recurrence in Kings County, with potentially damaging events transpiring every three years on average since 1962. Consequently, the anticipation of regular annual fog and intermittent damaging occurrences is high. To mitigate the impact, fog advisories are employed to postpone school and bus schedules until the fog lifts. A well-maintained traffic signage and striping system is pivotal in aiding drivers during fog events, facilitating safer navigation.

The sustained occurrence of fog, coupled with its potential for adverse effects, reinforces the importance of ongoing vigilance and comprehensive planning. Through the utilization of fog advisories to adjust school and bus schedules and the enhancement of traffic systems, Hanford demonstrates a proactive commitment to addressing the challenges posed by Tule fog. These initiatives underscore the City's dedication to ensuring the safety and welfare of its residents amidst the recurring atmospheric conditions associated with Tule fog.

Severe weather hazards associated with dense fog are an overall medium significance hazard for the City of Hanford. Refer to Chapter 4 for a discussion of dense fog hazards risk relative to the City of Hanford and the County.

### C.3.6.10 Severe Weather: Heavy Rain, Thunderstorms, Hail, and Lightning

Between 1968 and 2022, the NCEI Storm Events Database recorded a total of 127 instances of hail, heavy rain, thunderstorms, and lightning events in Kings County. Of these events, 27 were recorded in Hanford, consisting of six hail events, four lightning events, eight thunderstorm events, and eight heavy rain events. There were no recorded deaths or injuries. There has been \$91,603,000 estimated losses in crop damages and \$267,000 in property damages, summarized in Table C-17.

**Table C-C-16 Heavy Rain, Thunderstorms, Hail, and Lightning Events (1968-2022)**

Date	Injuries	Property Damage	Summary
Hail			
March 12, 1996	0	\$0	N/A
April 8, 1999	0	\$3,390,000 (Crop)	Besides the frost and wind during early April, very active thunderstorms moved through the Fresno, Kings, and Tulare County areas early on the evening of April 8th. Hail up to 1-inch was reported in northeast Hanford with crop damage north and east of town. Besides the hail near Porterville, Visalia had 3/4-inch hail by 2025 PDT. Even smaller hail on intolerant crops in Fresno County brought damage to area agriculture. Fresno County assessed a loss of \$15.65M, Kings \$3.39M, and Tulare \$6.0M due to hail during this time period.



Date	Injuries	Property Damage	Summary
April 28, 2005	0	N/A	Mid-day and afternoon thunderstorms during the 28th led to many reports of hail. Damage from hail on the 28th and other days of unseasonably persistent rain into early May resulted in significant crop damage in Central California. These damage figures will be reported in the May 2005 Storm Data.
September 22, 2007	0	N/A	An upper-level low dropped down the coast on the 21st and moved inland over Southern California the next day. This low triggered another thunderstorm outbreak, with hail up to 0.88 inch in diameter falling in eastern Kings County during the afternoon of September 22nd, and 0.75-inch hail falling west of Squaw Valley in Fresno County near the foothills. Flash flooding occurred in eastern Kings County, central Fresno County, and north-central Tulare County, with scattered reports of road flooding and minor mud/debris flows elsewhere in the central and southern San Joaquin Valley.
April 11, 2012	0	\$150,000 (Crop)	NWS Employee indicated a swath of accumulating large hail across the Hanford area.
Heavy Rain			
February 1, 1998	0	\$1,000,000 (Crop) \$20,000 (Property)	In Kings County about \$1.0M in flood protection costs was expended to try to protect ag land with an additional \$20K in damages due to high water in local communities in the county. No February monthly summary reports for agriculture in Merced, Tulare, or Madera Counties.
May 01, 1998	0	\$73,600,000 (Crop)	For the rain season through May 31, Fresno had 71 days of measurable rain with Bakersfield having 68. Total rainfall for Bakersfield in May was 1.33" which was the 5th wettest on record ... Fresno had 1.37" which was the 8th wettest. Bakersfield's year-to-date total as of 5/31/98 was 14.36" eclipsing the old record set in 1977-78 of 11.78" and compared to a normal of only 5.72". Fresno's total rain was at 18.43" which is the 5th wettest on record and compares to a normal of 10.60"/year.
June 8, 2000	0	\$100,000 (Crop)	An unseasonable rain again caused problems for hay and fruit growers in the Central and Southern San Joaquin Valley growing areas. Amounts varied from 1/3 to 2/3rds of an inch in Kings, Tulare, Fresno, and Madera Counties. Fresno had 0.56 inches of rain that broke a 46-year old record of 0.14 inch for June 8th. Locally heavy rain in Visalia caused some urban flooding problems. Gusty wind also occurred in the Kern County Mountains and Deserts: gusts to 51 knots were reported in Tehachapi Pass; with gusts to 40 knots at Mojave and Inyokern.
April 30, 2003	0	\$8,900,000 (Crop)	April and the first half of May 2003 in the Central and Southern San Joaquin Valley was marked by unusual and persistent cool, wet weather. Normally summer agricultural operations are in full swing by the 1st week in April. Despite a relatively dry November through March period for the area, the month of April was the 7th wettest with 2.84" of rain (2.08" above normal) since records began in Fresno in 1888 and the wettest since 1978 when 2.85" fell. The average temperature of 58.6F in Fresno for April was the coldest since 57.2F in 1976. Other sites in the San Joaquin Valley were similarly affected leading to the crop damage assessments. Cherries were the hardest hit in Fresno County; cotton planting was hurt the most in Madera County; and alfalfa the worst in Kings County.
April 21, 2003	0	\$1,000 (Crop)	Locally heavy rain accompanied by strong wind and small hail occurred in the Central and Southern San Joaquin Valley during the late afternoon hours of the 21st. Hail size was less than 1/2-inch but, in conjunction with, locally heavy rain led to local highway problems just northwest of Merced on State Highway 99. Snow level in the adjacent Southern Sierra Nevada dropped to 3500 feet mean sea level. Gusty wind late in the afternoon around Fresno resulted in some downed power lines and loss of power to 771 utility customers in North-Central Fresno. Unofficial rainfall amounts from convective showers were as high as 0.63" in Northeast Fresno with reports of pea-size hail and lightning. Official rain totals for the day were 0.20" at Fresno, 0.15" at Madera, and 0.13" at Visalia. In the Tehachapi Mountains at Bear Valley over 1.00 inch of rain fell due to the showers on the 21st.
January 1, 2006	0	N/A	Rainfall in excess of 2.5" in just over 30 hours lead to water covered roadways in several locations around Kings County. Hanford measured 2.82" of rain in that time period with the cities of Lemoore and Corcoran receiving just over



Date	Injuries	Property Damage	Summary
			3" of rain. Ponding basins overflowed in the city of Lemoore and flooding occurred in smaller cities of Huron and Corcoran. Strong wind during the evening of the 2nd brought down several large trees in the city of Lemoore including one 100-year old tree onto a house.
October 5, 2011	0	\$100,000 (Property)	Brief heavy rain caused a power transformer fire and a resulting house explosion. Rain amount measured at the Hanford ASOS were 0.13 inches
December 12, 2014	0	N/A	Widespread rainfall amounts of 1 to 2 inches across the Kings county. Nuisance roadway flooding.
Lightning			
May 31, 2002	0	N/A	Localized heavy rain at the Hanford Airport of 1.01" within a 21-minute time period totally flooded local streets and intersections. Despite heavy rain being highly localized (known locations at Hanford, Armona, Avenal, downtown Fresno, and Piedra area of Fresno County), lightning activity with this event was widespread, long-lasting, and very visual...an infrequent occurrence for the Central and Southern San Joaquin Valley. There were 260 lightning strikes between just 1900 and 2000 PST through the Central and South San Joaquin Valley...and that activity continued to just after midnight PST as a band of convection moved north through Kings County and into Fresno County. A trained spotter reported lightning at the rate of 5-6 flashes/second around 2100 PST in the Pine Flat Reservoir location near Piedra.
May 31, 2002	0	N/A	Remnants of Hurricane Alma interacted with a closed mid-latitude low providing moisture for a de-stabilizing air mass over Interior Central California in the late evening hours of Friday, May 31st. The resulting widespread, late evening convection lead to strong, gusty wind in wet microbursts and street flooding from localized, torrential rains. The most visual damage occurred with a series of very small microbursts evidenced by crop damage in North Kings County. Also a late report of 3/4+" hail was received from North Kings County.
May 31, 2002	0	\$5,000 (Crop)	Localized heavy rain at the Hanford Airport of 1.01" within a 21-minute time period totally flooded local streets and intersections. Despite heavy rain being highly localized (known locations at Hanford, Armona, Avenal, downtown Fresno, and Piedra area of Fresno County), lightning activity with this event was widespread, long-lasting, and very visual...an infrequent occurrence for the Central and Southern San Joaquin Valley. There were 260 lightning strikes between just 1900 and 2000 PST through the Central and South San Joaquin Valley...and that activity continued to just after midnight PST as a band of convection moved north through Kings County and into Fresno County. A trained spotter reported lightning at the rate of 5-6 flashes/second around 2100 PST in the Pine Flat Reservoir location near Piedra.
April 28, 2005	0	\$25,000 (Property) \$400,000 (Crop)	Lightning struck within the city limits of Hanford, Kings County, CA, during the severe thunderstorm episode of the 28th. Beside the destroyed oak tree, windows at the home and in the adjacent house were broken by debris resulting from the strike. Reports from the Kings County, Tulare County, and Fresno County Ag Commissioners will summarize the crop damage from the late April and early May rains and hail. The Kings County Ag Commissioner estimated 20% of the cherry crop was damaged by the hail and rain on the 28th.
Thunderstorms			
June 15, 1995	0	\$25,000 (Property)	Oak tree limbs were broken, and other full-foliaged trees were toppled by brief strong wind in the Hanford/Lemoore area, 30 miles south-southeast of Fresno. In Hanford, one of the toppled trees damaged a car. A post-event survey was unable to ascertain whether severe thunderstorm wind criteria were met because soils were moist, and trees were full-foliaged. However, the damage location just south of the Fresno County line and timing of the damage places this damage in proximity to severe storm damage in south-central Fresno County at Raisin City/Caruthers/and Easton.
December 13, 1995	0	N/A	In an unstable airmass numerous thunderstorms were noted through the NWSO San Joaquin Valley county warning area the afternoon of December



Date	Injuries	Property Damage	Summary
			13. With a Severe Thunderstorm Warning issued at 1423 PST and a valid time of one hour, one-inch hail was observed in north Hanford at 1500 PST by a National Weather Service Employee. Additional damage included some small trees uprooted from wind associated with the storm's passage. The reflectivity associated with this storm was 67dBz which spiked to 69dBz; VIL of 37; and storm top of 29,000 feet.
March 24, 1998	0	\$50,000 (Property)	Gusty wind with a thunderstorm measured at 42 MPH at Lemoore Naval Air Station brought down 32 power poles in north Kings County. the power company indicated 20,000 customers were affected by the downed lines for up to 12 hours.
October 09, 2000	0	N/A	Late evening convection brought numerous reports of locally heavy thundershowers beginning on the west side of the San Joaquin Valley and then moved northeast toward the foothills of the Southern Sierra Nevada. One cell along the south border of Fresno County generated a severe thunderstorm warning with a high reflectivity value but a lack of spotter reports due to time-of-day could not give verification of a severe event. A subsequent report of 4" of snow was received at Huntington Lake at the 7200-foot elevation of Fresno County overnight due to the thunder-snow shower activity. Another report of 4" of snow was received as well from Lodgepole in the Tulare County Mountains.
April 7, 2001	0	\$3,800,000 (Crop)	Heavy rain and hail (often less than 3/4-inch) accompanying widespread convective activity through Interior Central California late in the afternoon and early evening of Saturday, April 7th, caused extensive damage to agriculture. Although isolated severe hail swaths occurred, and some were defined as technically non-severe, widespread heavy rain in conjunction with the hail damaged young fruit, grape, grain, and early planted cotton crops in several counties. The crop damage figures should be considered approximate because they are in conjunction and need to be summed with the crop damage figures reported for the April 4th freeze and frost event through much of the same area.
May 31, 2002	0	\$200,000 (Crop)	Remnants of Hurricane Alma interacted with a closed mid-latitude low providing moisture for a de-stabilizing air mass over Interior Central California in the late evening hours of Friday, May 31st. The resulting widespread, late evening convection lead to strong, gusty wind in wet microbursts and street flooding from localized, torrential rains. The most visual damage occurred with a series of very small microbursts evidenced by crop damage in North Kings County. Also a late report of 3/4+" hail was received from North Kings County.
May 28, 2009	0	\$7,000 (Property)	<p>An upper-level ridge built into California beginning May 27th, bringing another warming trend to interior central California. Fresno warmed to 99 degrees on the 27th and reached 102 the next day. A weak low off Baja California spun mid-level moisture into California from the south, and the combination of heat and moisture triggered strong thunderstorms over the Southern Sierra Nevada and the Tehachapi Mountains each afternoon and evening, beginning on May 27th and continuing through the end of the month. Hail up to 1.5 inch in diameter fell near the town of Orange Cove on the evening of the 28th, and as thunderstorms over the Sierra Nevada, and over San Luis Obispo County, collapsed, outflow winds pushed across the San Joaquin Valley, triggering thunderstorms over the eastern and central Valley. Two of the storms merged into a strong system that produced gusty winds that toppled numerous trees on the Valley floor, as well as 1-inch hail near Visalia. Strong winds also triggered a gust-front tornado (gustnado) that damaged a mobile home park in Orosi.</p> <p>Convection was weaker on May 29th, as thunderstorms developed earlier and several of the storms were pushed north of the region by a more southeasterly flow aloft. However, this southeast flow also carried thunderstorms from northeastern Los Angeles and northwestern San Bernardino Counties into southeastern Kern County near Rosamond, Edwards AFB, and Boron. One thunderstorm collapsed as it passed west of</p>





Date	Injuries	Property Damage	Summary
			Edwards AFB in the early afternoon, generating outflow winds that were measured at a peak of 62 knots (71 mph).
June 5, 2011	0	\$50,000 (Property)	Off duty NWS employee reported a tree down in center divider of North 11th Avenue just north of West Lacey Blvd. A developing Pacific storm approached California on June 4th. Cold air pushed into the San Joaquin Valley, plunging temperatures to well below normal. The high at Fresno on the 4th was only 66 degrees, six degrees colder than the previous record low maximum temperature for the date of 72 degrees, set in 1954. As the push of cold air funneled through the passes of the Kern County mountains.
September 11, 2017	0	\$100,000 (Crop)	The persistent cut off upper low remained situated off the central California coast and continued to pull tropical moisture northward into central California. Some deep tropical moisture associated with a fairly strong upper level shortwave pushed into central California on September 11 and produced a severe thunderstorm outbreak during the afternoon and evening. Numerous reports of downburst winds exceeding 60 mph were reported and the impacts from these thunderstorms included downed power lines, damage to roofs; and large objects being knocked over and damaged. Rainfall amounts were generally a quarter of an inch or less with a few locations in the Southern Sierra Nevada and Tehachapi Mountains receiving between a quarter inch and a half inch of rain.
September 11, 2017	0	\$8,000 (Crop)	The persistent cut off upper low remained situated off the central California coast and continued to pull tropical moisture northward into central California. Some deep tropical moisture associated with a fairly strong upper level shortwave pushed into central California on September 11 and produced a severe thunderstorm outbreak during the afternoon and evening. Numerous reports of downburst winds exceeding 60 mph were reported and the impacts from these thunderstorms included downed power lines, damage to roofs; and large objects being knocked over and damaged. Rainfall amounts were generally a quarter of an inch or less with a few locations in the Southern Sierra Nevada and Tehachapi Mountains receiving between a quarter inch and a half inch of rain.

Source: NCEI Storm Events Database 2023

Severe weather hazards associated with heavy rain, thunderstorms, hail, and lightning are an overall medium significance hazard for the City of Hanford. Refer to Chapter 4 for a discussion of these severe weather hazards risk relative to the City of Hanford and the County.

### C.3.6.11 Severe Weather: High Wind/Tornado

Between 1968 and 2022, the NCEI Storm Events Database recorded a total of 98 instances of high wind, strong wind, and tornado events in Kings County.<sup>2</sup> It did not record any tornado events that had a magnitude higher than F2. Of these 98 events, 12 were recorded in Hanford, consisting of one tornado, one high wind event, and ten strong wind events. In addition to these events, the United States Department of Agriculture declared three disaster designations, one in 2016 and two in 2017, due to high wind events. Table C-17 summarizes high wind and tornado events recorded by the NCEI in Hanford.

**Table C-17 High Wind and Tornado Events in Hanford, 1968-2022**

Date	Property Damage	Summary
		Tornado

<sup>2</sup> The NCEI Storm database defines high winds as sustained non-convective winds of 35 knots (40 mph) or greater lasting for 1 hour or longer, or gusts of 50 knots (58 mph) or greater for any duration (or otherwise locally/regionally defined). Events with winds less than High Wind criteria, resulting in fatalities, injuries, or significant property damage are encoded as a Strong Wind events.



Date	Property Damage	Summary
March 12, 1996	\$10,000	This small F0 tornado ran S-to-N through a residential area of Hanford. Small trees were toppled, lawn furniture lifted and deposited into a pool, fences knocked down, and trash cans displaced. It also demolished a small farm structure and shredded bushes along its path.
<b>High Wind</b>		
Feb. 20, 2000	\$100,000	Gusts of wind reported in Hanford at 35 MPH. California Highway Patrol closed some South San Joaquin Valley roads due to visibilities less than 50 feet in blowing dust. The California Department of Transportation (Caltrans) reported trees down along Highway 198; and subsequent power outages occurred. Numerous reports of trees being blown down including some commercial fruit trees.
<b>Strong Wind</b>		
June 8, 2002	\$0	While wind was gusty in the Kern Mountains and Deserts, higher than normal wind speeds caused concerns in the Central and Southern San Joaquin Valley. Northwest wind gusted to 38 MPH at Lemoore on the morning of the 8th and reached 42 MPH later in the day along the west side of the Valley in Fresno County. On the east side of the Valley, wind did not quite reach wind advisory levels although speeds to 26 MPH reported in Hanford.
Feb. 19, 2003	\$5,000	Cold-frontal passage brought strong north wind to the southern portion Interior Central California late afternoon and early evening of the 19th. On the South San Joaquin Valley floor, wind speeds reached 37 MPH at Hanford and 44 MPH at Bakersfield. The strong wind caused a major power outage affecting 12,000 customers in the city of Lemoore and an additional 18,000 customers elsewhere in Kings and Southwest Fresno Counties.
Dec. 31, 2005	\$10,000	A strong gust of wind focused along a squall line swept through the Central San Joaquin Valley on December 31st. A dairy located about 9.8 miles south of Kerman in Fresno County sustained damage to the roofs of several dairy open-sided structures. Roof debris was strewn about 1/4 mile downwind. In Northern Kings County about 3.5 miles NNW of Hanford similar damage was sustained to some open-sided structures along with some fences and trees downed.
Jan. 2, 2006	\$100,000	Rainfall in excess of 2.5 in just over 30 hours lead to water covered roadways in several locations around Kings County. Hanford measured 2.82" of rain in that time period with the cities of Lemoore and Corcoran receiving just over 3" of rain. Ponding basins overflowed in the city of Lemoore and flooding occurred in smaller cities of Huron and Corcoran. Strong wind during the evening of the 2nd brought down several large trees in the city of Lemoore including one 100-year-old tree onto a house.
Feb. 27, 2006	\$10,000	Pre-frontal gusty southeast wind swept the Central San Joaquin Valley beginning by the late afternoon of the 27th. A tree was blown over taking down power lines in the Visalia area and Hanford area of Central California at 03:28 PST early on the morning of the 28th. Deciduous trees were downed on the San Joaquin Valley floor causing agricultural losses.
Oct. 9, 2008	\$3,000	From the 9th until the 11th there were several weather stations in the mountain passes, canyons, and deserts that recorded gusty winds up to 55 mph due to the passage of the low-pressure system. These strong winds produced areas of blowing dust at times across much of the San Joaquin valley. This condition prompted local environmental health experts to issue warnings of the effects of blowing dust and reduced air quality. Strong winds caused minor property damage in Hanford, where a tree branch was blown down and blocked a roadway intersection. Winds in the San Joaquin Valley gusted to 40-45 mph at times.
Dec. 25, 2008	\$25,000	Gusty winds moved through the region on Christmas Day, with gusts to around 40 mph hitting Hanford around midday. Winds across the valley caused isolated reports of downed powerlines and small trees with peak wind gusts near 50 mph with the cold front.
Feb. 18, 2013	\$3,000	Strong winds developed in the Indian Wells Valley. As the cold front moved through, the focus of the strong winds shifted south into the southeastern Kern County desert. Winds gusted to 45-50 mph near Mojave, and to as high as 58 mph at Rosamond. Isolated heavy showers developed along the cold front over the central and southern San Joaquin Valley during the late afternoon and evening of February 19th. Pea-size hail was reported from these storms, including one report from a few miles north of Hanford.
April 9, 2019	\$1,000	A strong cold front crossed during the afternoon of April 9, bringing a period a strong wind gusts to the San Joaquin Valley as well as to the Lake Isabella and Tehachapi areas. Several power outages resulted from downed power lines in the San Joaquin Valley where there were



Date	Property Damage	Summary
		several winds gusts exceeding 40 mph. Public reports a large tree being blown over a Civic Auditorium Park in Hanford.
May 20, 2021	\$1,500	A cold upper low-pressure system dropped into northern California during the morning of May 20 carving out a strong upper trough into the western U.S. A cold front associated with this system also pushed through the area during the day and brought a period a very strong winds to the Kern County Deserts as well as to the Tehachapi and Lake Isabella area in the Kern County Mountains. Several stations reported gusts exceeding 60 mph while a few low impact indicator sites briefly measured gusts exceeding 90 mph. NWS Employee reported wind gusts blew a tree into a house in northeast Hanford.

Source: NCEI Storm Data Base, 2023

Tornadoes and windstorms pose a significant risk to both the residents and the property within the City of Hanford. Vulnerability varies depending on the intensity of the event, with certain entities, including mobile homes, damaged vegetation, trees, and utility infrastructure, being particularly susceptible. While vulnerability might differ based on the strength of the event, due to the regional scale of these events, the risk to the City of Hanford does not vary significantly from the risk to the County as a whole.

High wind and tornado events are an overall medium significance hazard for the City of Hanford and all jurisdictions within Kings County. Refer to Chapter 4 for a discussion of high wind and tornado risk relative to the City of Hanford and the County

## C.4 CAPABILITY ASSESSMENT

Capabilities are the programs and policies that are 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 outreach and partnerships, and other mitigation efforts. To develop this capability assessment, the jurisdictional planning representatives reviewed a matrix of common mitigation activities to inventory which of these policies or programs are already in place and shared any updates or changes through the Hanford Plan Update Guide. The team then supplemented this inventory by reviewing additional existing policies, regulations, plans, and programs to determine if they contribute to reducing hazard-related losses.

During the plan update process, this inventory was reviewed by the jurisdictional planning representatives and WSP consultant team staff to update information where applicable and note ways in which these capabilities have improved or expanded. Additionally, in summarizing current capabilities and identifying gaps, the jurisdictional planning representatives also considered their ability to expand or improve upon existing policies and programs as potential new mitigation strategies. The City of Hanford's capabilities are summarized below.

### C.4.1 Regulatory Capability

The regulatory and planning capabilities table lists planning and land management tools typically used by local jurisdictions to implement hazard mitigation activities. The table below indicates those that are in place in the City of Hanford.

**Table C-18 City of Hanford –Regulatory and Planning Capabilities**

REGULATORY TOOL (ORDINANCES, CODES, PLANS)	YES/NO	COMMENTS
General Plan	Yes	2035 General Plan published in 2014 <a href="https://ci.hanford.ca.us/DocumentCenter/View/606/2034-General-Plan-Background-Report-PDF">https://ci.hanford.ca.us/DocumentCenter/View/606/2034-General-Plan-Background-Report-PDF</a>
Zoning ordinance	Yes	Title 17 of Municipal Code <a href="https://library.qcode.us/lib/hanford_ca/pub/municipal_code">https://library.qcode.us/lib/hanford_ca/pub/municipal_code</a>



REGULATORY TOOL (ORDINANCES, CODES, PLANS)	YES/NO	COMMENTS
Subdivision ordinance	Yes	Title 16 of Municipal Code
Growth management ordinance	No	
Floodplain ordinance	Yes	Chapter 15.52 of Municipal Code, Flood Damage Prevention Regulation
Other special purpose ordinance (stormwater, steep slope, wildfire)	Yes	<a href="https://library.qcode.us/lib/hanford_ca/pub/municipal_code">https://library.qcode.us/lib/hanford_ca/pub/municipal_code</a>
Building code	Yes	The City adopts the most recent California Building Code into the City's Municipal Code (Title 15), typically the new code is adopted in January of the relevant year.
Fire department ISO rating	Yes	Previous Rating 2, awaiting 2022 Rating
Erosion or sediment control program	Yes	Chapter 15.55 of Municipal Code
Stormwater management program	Yes	Chapter 13.10 of Municipal Code
Site plan review requirements	Yes	Chapter 17.72 of Municipal Code, Site Plan Review
Capital improvements plan	Yes	
Economic development plan	No	
Local emergency operations plan	Yes	Updated 2015
Other special plans	No	
Flood insurance study or other engineering study for streams	Yes	Effective Date 09/16/2015
Elevation certificates (for floodplain development)	No	
Other	N/A	

#### Hanford General Plan 2035 (2014)

The General Plan was updated in 2014 and is intended to guide the development of Hanford over the next 20 to 25 years. The updated plan sets goals, objectives, policies, and programs for five elements: land use and community design; transportation and circulation; open space, conservation, and recreation; public facilities and services, and health and safety. The Health, Safety, and Noise element addresses natural hazards, manmade hazards, noise, public health and fitness, and environmental justice. Additionally, the City of Hanford Health, Safety, and Noise Element references incorporation of the 2007 MJHMP in Policy H1 "Kings County Multi-Jurisdictional Hazard Mitigation Plan" and Policy HS "Update to the Multi-Jurisdictional Hazard Mitigation Plan."

#### Flood Damage Prevention Regulations (1998)

The purpose of this ordinance is to minimize public and private losses due to flood conditions by restricting certain uses and requiring certain protections in areas of special flood hazards as identified in FEMA's 1987 FIRM. The new Digital FIRMs (DFIRM) established with FEMA have been integrated into all relevant planning and permit processes for all of Kings County.

#### Urban Water Management Plan (2020)

The purpose of the UWMP is to maintain efficient use of urban water supplies, continue to promote conservation programs and policies, ensure that sufficient water supplies are available for future beneficial use, and provide a mechanism for response during water drought conditions

#### Water Shortage Contingency Plan (2020)

The purpose of the Water Shortage Contingency Plan is to establish a comprehensive framework and guidelines for managing and responding to water shortages and drought conditions. This plan aims to ensure the efficient and equitable allocation of available water resources during times of scarcity. By defining specific stages or levels of water shortage, along with corresponding actions and restrictions, the plan provides a structured approach to mitigating the impacts of drought on water supply, distribution, and consumption. Ultimately, the plan's goal is to safeguard the sustainable use of water resources, promote responsible water usage, and maintain essential services while minimizing the adverse effects of water scarcity on communities, the environment, and the economy.



## Hanford Emergency Operations Plan (2015)

The emergency plan defines the responsibilities of the city staff in response to emergency situations and provides for the powers and duties of the Disaster Council. Hanford has adopted Section 6-3 of the Kings County Code of Ordinances providing for disaster council membership. The Disaster Council develops and recommends for adoption by the Kings County Board of Supervisors and city councils of Avenal, Corcoran, Hanford, and Lemoore emergency and mutual aid plans and agreements and necessary ordinances and resolutions.

### Conservation and Open Space Zoning District

This Conservation and Open Space Zoning district applies to pathways, storm drainage basins, and water recharge areas throughout the city and is intended to provide for permanent open spaces in areas of the City that exhibit significant vegetation, scenic qualities, wildlife or recreation potential, and that are designated as open space sites by the General Plan.

## C.4.2 Administrative and Technical Capability

The table below identifies City personnel with responsibilities for activities related to mitigation and loss prevention in the City of Hanford. Many positions are full time and/or filled by the same person. A summary of technical resources follows.

**Table C-19 City of Hanford –Personnel Capabilities**

PERSONNEL RESOURCES	YES/NO	DEPARTMENT/POSITION	COMMENTS
Planner/engineer with knowledge of land development/land management practices	Yes	Community Development/Senior Planner	
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	Public Works/City Engineer	
Planner/engineer/scientist with an understanding of natural hazards	Yes	Public Works/City Engineer	
Personnel skilled in GIS	No		Contracted Service if Needed
Full time building official	Yes	Community Development/building Official	
Floodplain manager	Yes	Public Works	Designated per Chapter 15.52 of the Hanford Municipal Code
Emergency manager	Yes	Fire Chief	Working to train the Fire Marshal to handle this position in the Emergency Operations Center (EOC)
Grant writer	No		
Other personnel	No		
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	Yes	Community Development/Senior Planner	
Warning Systems/Services (Reverse 9-11, cable override, outdoor warning signals)	No		
Other			



## City Council

Members of the Hanford City Council are selected directly by the electorate to serve as the policy-making board of the city. The city council is comprised of five members elected by district and serve 4-year staggered terms. Each year the city council members select a mayor and vice-mayor from amongst themselves.

## City Manager

The City Manager is the administrative head of the municipal government. The City Manager sets goals and provides administrative direction for all City departments in accordance with the policies established by the City Council. The City Manager ensures that the City's vision and mission are accomplished.

## City Attorney

The City Attorney serves as the chief legal advisor to a city government. Their role encompasses a wide range of legal responsibilities and functions within the city's legal framework, including legislative support, public representation, and litigation and risk management. The City attorney plays a pivotal role in ensuring that the City's actions and operations are conducted within the boundaries of the law, while also safeguarding the City's interests and serving as a legal advocate for the municipality.

## City Clerk

The City Clerk is responsible for administering the City's elections and in this role coordinates and advises public officials, candidates for office, and the public on election matters, campaign disclosures and voter registration. The City consolidates its elections with the county of Kings. The responsibilities of the City Clerk include processing and distributing City Council agendas and attending City Council meetings to record the council's legislative actions including the adoption of ordinances, resolutions and minute actions.

## Community Development Department

The City of Hanford Community Development Department is committed to providing quality service and to working with the citizens and businesses in our community in a friendly and helpful manner.

## Fire Department

The City of Hanford Community Development Department is committed to providing quality service and to working with the citizens and businesses in our community in a friendly and helpful manner.

## Public Works Department

While the Public Works Department may not always be prominently featured in public discourse, its dedicated personnel diligently labor behind the scenes to uphold and enhance the City's infrastructure. The department takes charge of a multitude of essential tasks, encompassing waste collection, water distribution, sewer maintenance, wastewater treatment, traffic signal operation, road upkeep, upkeep of municipal facilities, proper maintenance of city vehicles, and the aesthetically pleasing maintenance of parks and median strips.

## Planning Division

The Planning Division is committed to providing the community with personal attention, accurate and detailed information, and timely responses in a manner that instills public trust and confidence while exceeding service expectations.

## Planning Commission

The Commission consists of five members appointed by the City Council. One member of the City Council, appointed by the mayor, and the Director of the Community Development Department (or designee) serve as nonvoting ex-officio members. The Planning Commission has the principal duty of establishing and maintaining the General Plan of the community and advising on physical development, zoning, subdivision proposals, and special studies so that community values are maintained and protected.





## Community Risk Reduction Division

The Hanford Fire Department has taken significant steps to enhance community safety by appointing a Fire Marshal to lead their Community Risk Reduction and Public Education Program. This expansion of their outreach includes collaborations with the Thursday Night Market Place on Main Street, school programs, and monthly events. With a strong focus on code enforcement and public education, the department offers various free safety education programs to the citizens of Hanford, covering topics such as general fire safety, burn safety, home hazard inspections, fire extinguisher training, earthquake and disaster preparedness, and poison safety and prevention. CPR training is also available for a nominal fee, with the ultimate goal of creating a truly "Fire safe community" through community engagement and education.

### C.4.3 Fiscal Capability

The following table identifies financial tools or resources that the City could potentially use to help fund mitigation activities. There are currently no specific funding sources for hazard mitigation.

**Table C-20 City of Hanford –Available Financial Tools and Resources**

FINANCIAL RESOURCES	ACCESSIBLE/ ELIGIBLE TO USE	HAS THIS BEEN USED FOR MITIGATION IN THE PAST?	COMMENTS
Community Development Block Grants	Yes	No	Primarily Used for Housing Programs
Capital improvements project funding	Yes	No	
Authority to levy taxes for specific purposes	Yes	No	
Fees for water, sewer, gas, or electric services, new development	Yes	No	Water, sewer, trash
Incur debt through general obligation bonds	Yes	No	
Incur debt through special tax bonds	Yes	No	
Incur debt through private activities	No	No	
Federal Grant Programs (Hazard Mitigation Grant Program)	Yes	No	

### C.4.4 Outreach and Partnerships

The City of Hanford conducts numerous outreach and public education programs during local events. Information is provided in English and Spanish, and many programs have Spanish speaking members available as needed. The City of Hanford also has various partnerships in place, particularly with Kings County and the American Red Cross. The City collaborates extensively with Kings County and various agencies to execute community-based outreach initiatives aimed at hazard mitigation and climate adaptation, particularly focusing on underserved and under-resourced populations. A partnership with the American Red Cross involves identification of enhanced capabilities through collaborative efforts with Kings County, City authorities, and local fire departments. These programs encompass outreach campaigns for preparedness education, ongoing shelter inspections, and updates to shelter site contact information. These efforts also intend to bolster the American Red Cross' proficiency in mitigation, preparedness, and response within Kings County. The Hanford Fire Department is engaged in public education by offering diverse programs addressing water usage, earthquake awareness, fire safety, disaster preparedness, and other facets of public safety. This approach to public education encompasses information dissemination, instructional sessions, and participation in events across schools, community gatherings, and social media platforms.



Moreover, as outlined in the Kings County 2015 EOP, the emergency response role of cities and special districts is generally focused on restoring their normal services or functional area of responsibility. During disasters, cities and some types of special districts will be more extensively involved in the emergency response by directly coordinating, communicating, and assisting local governments. If a city or special district does not send a representative to the EOC, then the Liaison Officer in the County's EOC will be responsible for establishing communications and coordination with the cities or special district liaisons.

The Hanford Police Department Homeless Assistance Resource Team (HART) team's mission is to tackle homelessness by considering the challenges faced by businesses, residents, the City, and individuals experiencing homelessness. To fulfill this mission, the HART team remains informed about current trends and collaborates with numerous other agencies and organizations. The HART team comprises two full-time police officers who perform various responsibilities, including responding to service calls and addressing crimes related to homelessness, engaging with community members to resolve issues, coordinating with individuals in need of services, managing cleanups of homeless encampments, and collaborating with organizations that provide assistance to the homeless.

Other events that the City participates in include, but are not limited to school programs, the Thursday Night Market Place, open house events, local business safety events, and participation with civic organizations. The City participates in most social media platforms and is currently updating their website to provide better outreach. Additionally, citizens are encouraged to stay informed by signing up for alerts on the City website or by subscribing to the City newsletter, the Civic Courier. The City understands that public education about hazard mitigation can be shared and integrated into many of these additional event and outreach platforms.

During the 2022-2023 planning process the following other outreach efforts were identified that the City of Hanford could support related to hazard mitigation:

- Water Conservation Portal
- Report a Problem Portal
- Alert Center (Emergency Alerts and Notifications)
- Social Media (Facebook, Twitter, Instagram)
- Thursday Night Market Place
- Open House Events, Local Business Safety Events
- Civic Organization Participation

Education and outreach efforts, as well as emergency response planning, will also need to address the needs of DACs, low-income residents, and the large Spanish-speaking population.

#### C.4.5 Other Mitigation Efforts

The City has applied for FEMA's State Homeland Security Grant Program (SHSGP). No other mitigation efforts associated with FEMA HMA program were noted by the City's LPT. However, the City of Hanford actively engages with the community to develop, update, and maintain their guiding planning documents. This is the core of the City's mitigation efforts. Through the implementation of these guiding planning documents, the City can identify critical infrastructure and personnel needs. Grants are solicited for personnel including firefighters via the Safe and Affordable Funding for Equity and Resilience (SAFER) program and for police officers via the Peace Officer Standards and Training (POST) program. The City also pursues the Assistance to Firefighters Grants (AFGs) every year they have been available with successes in PPE and equipment. The City was also recently successful in gaining support to replace the reserve fleet in the Fire Department by a one-time state grant for \$1 million from Senator Hurtado's office. With the goal of mitigation, the City of Hanford has applied for additional grants for safe roads, parks, and resilient communities through every available and known grant program.



## C.4.6 Opportunities for Enhancement

Based on the capability assessment, the City of Hanford has existing regulatory, administrative/technical, fiscal mechanisms in place that help to mitigate hazards. In addition to these existing capabilities, there are opportunities for the City to expand or improve on these policies and programs to further protect the community. These are organized below by regulatory, administrative/technical, fiscal, and outreach opportunities.

### Regulatory Opportunities

With the growth projected in the City in the Regional Housing Needs Plan, the City could create an Economic Development Plan to establish a strategic framework and roadmap for fostering economic growth, enhancing prosperity, and improving the overall economic well-being of the City. This plan could outline a set of coordinated actions, policies, and strategies designed to guide investment, increase local revenue, and stimulate economic activity.

### Administrative/Technical Opportunities

Future administrative and technical enhancements may include providing hazard training for staff or hazard mitigation grant funding in partnership with Kings County and Cal OES. Existing City staff are aware of the benefits of participating in training and webinars offered by Cal OES Hazard Mitigation Assistance (HMA) Team related to Hazard Mitigation Grant Program (HMGP) opportunities, HMGP Sub application Development support, and other funding programs, such as Prepare California Jumpstart.

Other opportunities may be related to coordinating and educating key stakeholders in the City. Other stakeholders may be interested in aligning efforts related to hazard mitigation with climate action and adaptation planning (related to the City's CAP), and also supporting HMGP Sub applications and other hazard mitigation trainings.

### Fiscal Opportunities

Fiscal opportunities could include aligning the MJHMP and the Hanford Annex with the City's CIP. During the next CIP Update, the City should incorporate hazard information and include hazard mitigation actions and climate adaptation strategies that relate to infrastructure systems resiliency associated with the water and wastewater systems. Once projects related to hazard mitigation are approved, the recent CIP can be shared with the community on the City's webpage. Capital investments and improvements related to seismic retrofits and cooling center upgrades should all be emphasized in the outreach materials as they are related to hazard mitigation.

The City could also apply for HMGP grants to fund implementation costs associated with key CIP projects, and related projects in the City's mitigation strategy. These fiscal capabilities may be supported by City staff or augmented with Consultant staff.

### Outreach Opportunities

The City can expand their outreach capabilities related to the implementation of the 2023 Kings County MJHMP and the City of Hanford Annex. Specific enhancements may include continued public involvement through social media posts and advertisements focused on projects successes related to the Annex Mitigation Strategy as well as focused outreach to under-represented and special-interest groups in the City. The City should also expand existing programs through the Fire Department already in place around hazards education and other safety topics. Expansion of the school programs for grades PK-6 is another consideration, as well as continuing the share posts from the NWS. The City can also develop outreach kits for partner organizations by expanding on the information include in the MJHMP Outreach Strategy included in Appendix F.



## C.5 MITIGATION STRATEGY

### C.5.1 Goals and Objectives

The City of Hanford adopted the hazard mitigation goals and objectives developed by the HMPC and described in Section 5 Mitigation Strategy of the Base Plan. Like the Mitigation Strategy in the Base Plan, this section outlines the City's roadmap for future hazard mitigation administration and implementation. The purpose of the strategy is to reduce vulnerabilities from key priority hazards outlined in the risk assessment through regulatory tools and projects.

### C.5.2 Progress on Previous Mitigation Actions

During the 2022-2023 planning, the City's CPT reviewed all the mitigation actions from the 2012 plan. As shown in The remaining six mitigation actions were carried forward into the 2023 MJHMP and Hanford Mitigation Strategy.

Table C-21, of the eight actions from the 2017 MJHMP, two mitigation actions have been completed. The remaining six mitigation actions were carried forward into the 2023 MJHMP and Hanford Mitigation Strategy.

**Table C-21 Completed Mitigation Actions**

DESCRIPTION / BACKGROUND / BENEFITS	GOALS AND LIFELINES	HAZARD(S) MITIGATED	STATUS
Traffic Safety for Fog Events	Goal 1, Transportation	Fog	Complete. EdgeLine and signals on flash when visibility is diminished.
Study the potential impacts of the High-Speed Rail Project	Goal 1, Goal 2, Goal 3, Transportation	Drought, Earthquake, Extreme Heat, Flood, Fog, Freeze, Wildfire	Complete. The High-Speed Rail Project is now under construction.

### C.5.3 Continued Compliance with the NFIP

The City of Hanford joined the NFIP on March 18, 1987. In addition to the mitigation actions identified herein, the City will continue to comply with the NFIP. Floodplain management is under the purview of the Floodplain Manager in the Public Works Department. This includes ongoing activities such as enforcing local floodplain development regulations, issuing permits for appropriate development in SFHAs, and ensuring that this development is mitigated in accordance with the regulations. This will also include periodic reviews of the floodplain ordinance to ensure that it is clear and up to date and reflects new or revised flood hazard mapping. The City Public Works Department also manages the storm water program.

### C.5.4 Mitigation Action Plan

As part of the 2022-2023 planning process the City's LPT developed an updated list of hazard mitigation actions or projects specific to the City. The process used to identify, develop, and prioritize these actions is described in Chapter 5 of the Base Plan. The City's LPT identified and prioritized the 18 actions, including six actions carried forward from the 2012 MJHMP, and 12 new actions, as summarized in Table C-22. These mitigation actions are based on the risk assessment and goals and objectives. The list is grouped by hazards(s) mitigated. Background information as well as information on how the action will be



implemented and administered, such as ideas for implementation, responsible office, partners, potential funding, estimated cost, and timeline also are described. Per the DMA requirement, actions have also been identified that address reducing losses to existing development and future development. Moreover, the LPT reviewed existing mitigation actions from the County's 2012 MJHMP and provided status updates on past hazard mitigation planning efforts.

The mitigation strategy also includes only those actions and projects which reflect the actual priorities and capacity of the jurisdiction to implement over the next five years covered by this plan. It should further be noted, that although a jurisdiction may not have specific projects identified for each significant (medium or high) hazard for the five-year coverage of this planning process, each jurisdiction has focused on identifying those projects which are realistic and reasonable for them to implement. Should future projects be identified for significant hazards where the implementing jurisdiction has the capacity to implement, the jurisdiction would add those projects to their Annex. The City also recognizes that other mitigation actions proposed in the County's mitigation strategy will cover the significant hazards in the City that are not currently linked to a mitigation action.

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**Table C-22 City of Hanford Mitigation Action Plan**

ID	GOAL(S) AND LIFELINES	HAZARD(S) MITIGATED	DESCRIPTION/ BACKGROUND/ BENEFITS	LEAD AGENCY AND PARTNERS	COST ESTIMATE	POTENTIAL FUNDING	PRIORITY	TIMELINE	STATUS/ IMPLEMENTATION NOTES
1	Goal 1, Goal 2, Goal 3; Safety and Security	Drought, Earthquake, Extreme Temperatures, Flood, Public Health Hazards, Wildfire	Public Education Program for All Hazards	County and City Public Works, Kings County Health Dept., Kings County OES	Low	General Fund	High	Ongoing	In Progress, the Hanford Fire Department hired a Fire Marshal to lead Community Risk Reduction and public education program for the department. Outreach now includes numerous events such as school programs and other monthly events.
2	Goal 1, Goal 3; Food, Water Shelter	Drought	Retrofits to Water Storage Tanks - Two water storage tanks holding 800,000 gallons of water need to be seismically retrofitted against seismic and fire hazards following earthquakes	City of Hanford Public Works Department	Moderate	DWR Grants, HMGP	High	Ongoing	In progress. Drilled two new wells to feed the system and added two additional 500,000 water tanks being proposed as part of the City Infrastructure Plan.
3	Goal 1, Goal 2, Goal 3; Safety and Security; Communication; Transportation	Earthquake	GIS Database of Unreinforced Masonry (URM) Buildings	City of Hanford Fire Department, Kings County Community Development, OES, City GIS, IT	Moderate	General Fund	Medium	Short Term	Not started, funding not secured yet.
4	Goal 1, Goal 3, Goal 4; Food, Hydration, Shelter	Earthquake	Retrofit 58 URM Buildings in Downtown Hanford	City of Hanford City Manager's Office	Very High	FEMA HMA HMGP	Medium	Long Term	In progress, in certain cases, the City has required developers to conform to the most recent California Building Code.
5	Goal 1, Goal 2, Goal 3; Safety and Security, Communication, Food, Hydration, Shelter	Earthquake, Land Subsidence, Landslide	Assessment of Critical Facilities	City of Hanford Fire Department	Moderate	General Fund, HUD CDBG Funds	Medium	Medium Term	In progress. All pre-1933 buildings have been collected in the pre-incident planning documents. Schools, apartments, daycares data are being tracked into pre-incident software. Fire has completed a Fire specific Community Risk



ID	GOAL(S) AND LIFELINES	HAZARD(S) MITIGATED	DESCRIPTION/ BACKGROUND/ BENEFITS	LEAD AGENCY AND PARTNERS	COST ESTIMATE	POTENTIAL FUNDING	PRIORITY	TIMELINE	STATUS/ IMPLEMENTATION NOTES
									Assessment and Standard of Cover for the City of Hanford. Public Works has developed an internal plan for critical infrastructure (water distribution, lifeline utilities, etc.).
6	Goal 1, Goal 2; Transportation	Earthquake, Dam Incidents, Flood, Wildfire	Disaster Evacuation Routes - Ensure the maintenance and enhancement of established disaster evacuation routes	City of Hanford City Manager's Office, City of Hanford Public Works Department, Kings County OES	Moderate	General Fund	Medium	Medium Term	Not started.
7	Goal 1; Transportation, Communication	Dam Incidents, Earthquake, Flood, Subsidence, Landslide, Fog, Severe Storms, Wildfire	Develop a transportation routing app, similar to the Caltrans app, to divert traffic due to road conditions during hazard events.	Kings County Public Works, Kings County Administration	Moderate	Community Power Resiliency Allocation Program, Emergency Management Performance Grant (EMPG), HMGP	Low	Short Term	New in 2023
8	Goal 1, Goal 2; Safety and Security	Flooding, Wildfire	Create a flood channel debris management plan to allow the flow of water, increase capacity, and remove fire hazards.	Kings County Public Works, Water and Irrigation Districts, City Public Works	High	Proposition 68, Federal and State Resources	High	Short Term	New in 2023
9	Goal 1, Goal 2, Goal 3, Goal 4; Safety and Security, and Food, Water, Shelter	Flood, Severe Weather, Drought, Subsidence	Develop a series of flood control basins on the Kings River that either recharge or store water during flood flows.	Kings County Conservation District (KRCD), Local GSAs	Very High	DWR Grants, FEMA HMA HMGP, BRIC	High	Long Term	New in 2023
10	Goal 1, Goal 2, Goal 3, Goal 4; Safety and Security	Flood, Severe Weather	Evaluate federal levees to determine height and make-up of levees to protect during 100-year storm events.	United States Army Corps of Engineers (USACE), KRCD	Very High	USACE Grants	High	Long Term	New in 2023



ID	GOAL(S) AND LIFELINES	HAZARD(S) MITIGATED	DESCRIPTION/ BACKGROUND/ BENEFITS	LEAD AGENCY AND PARTNERS	COST ESTIMATE	POTENTIAL FUNDING	PRIORITY	TIMELINE	STATUS/ IMPLEMENTATION NOTES
11	Goal 1, Goal 2, Goal 3, Goal 4; Safety and Security	Flood, Subsidence, Severe Weather	Remove sediment from Kings River to avoid future capacity issues.	KRCD	Very High	HMPG Funds. Prop 68	High	Medium Term	New in 2023
12	Goal 1, Goal 2, Goal 3, Goal 4; Safety and Security, Food, water, Shelter, Transportation	Drought, Subsidence	Conduct updated land subsidence study to understand elevations, shifts, and vulnerability.	Kings County Administration, Water Management Agencies	Moderate	DWR, USACE, Cal OES	Medium	Short Term	New in 2023
13	Goal 3; Safety and Security Communications	Cyber-attack	Use antivirus solutions, malware, and firewalls to block threats	City of Hanford	Moderate	General fund	Medium	Ongoing	New in 2023
14	Goal 3; Health and Medical	Public Health Hazards	Utilize trainings and exercises, epidemiology and surveillance to control and combat public health risks	County and City Public Health Departments	Moderate	General Fund	Medium	Ongoing	New in 2023
15	Goal 1, Goal 3; Safety and Security	Earthquake, Drought	Safety Building & Community Center - Create a safety building for police and fire administration. Building will house EOC and a community center	Hanford Police and Fire Departments	Moderate	General Fund	Medium	Medium Term	New in 2023
16	Goal 1, Goal 3, Goal 4; Food, Hydration, Shelter	Extreme Temperatures	Extreme Weather Shelter - Develop plan for center to assist at-risk populations during extreme weather events. Coordinate with regional plans for consistency.	Hanford Community Development Agency, Police and Fire Department	Moderate	General Fund, APGP	High	Medium Term	New in 2023
17	Goal 1, Goal 3, Goal 4; Transportation	Multi-Hazards	Grangeville Overpass - Design and build an overpass for the train tracks to allow emergency vehicle access during a hazard event.	Hanford Public Works, Community Development, and Administration	Very High	General Fund	High	Long Term	New in 2023
18	Goal 1, Goal 3, Goal 4; Transportation	Multi-Hazards	Assess the Capacity and Viability of Designate Evacuation Routes and Develop Evacuation Plan for All Hazard Scenarios	Hanford Public Works, Community Development, and Administration	Very High	General Fund	High	Long Term	New in 2023

**KEY:**

\*This key provides additional information on cost estimates, potential funding, community lifelines, and the timing for implementation for each action.

**Cost Estimate**

- Little to no cost
- Low: Less than \$10,000
- Moderate: \$10,000 – \$100,000



- High: \$100,000 – \$1,000,000
- Very High: More than \$1,000,000

**Potential Funding**

- APGP – California funding to local, regional, and tribal communities in integrated climate adaptation planning; supports climate-resilient projects in California.
- BRIC – Building Resilient Infrastructure and Communities Grant
- Cal OES Grants – funds for homeland security, emergency management, victim services, and criminal justice programs, a majority of which are distributed to local and regional entities to enable the most effective prevention, detection, response, and recovery efforts
- Community Power Resiliency Allocation Program, Emergency Management Performance Grant (EMPG) – support for California incorporated cities, federally-recognized tribes, and California special districts in preparing for and responding to power outage events.
- DWR Urban Community Drought Relief Grant Program – Grant program designed to strengthen drought resilience and better prepare communities for dry conditions.
- FEMA HMA HMGP – Hazard Mitigation Assistance Hazard Mitigation Grant Program
- USACE – U.S. Army Corps of Engineers Funding like Silver Jacket Program, Flood Risk Management Program

**FEMA Community Lifelines**

- Safety and Security
- Food, Hydration, and Shelter
- Health and Medical
- Energy
- Communications
- Transportation
- Hazardous Materials
- Water Systems

**Timeline**

- Short Term: 1-2 years
- Medium Term: 3-5 years
- Long Term : 5+ years
- Ongoing: Action is implemented every year

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## **C.6 IMPLEMENTATION AND MAINTENANCE**

Moving forward, the City will use the mitigation action table in the previous section to track the progress on the implementation of each project. Implementation of the plan overall is discussed in Section 6 in the Base Plan.

### **C.6.1 Incorporation into Existing Planning Mechanisms**

The information contained within this plan, including results from the Vulnerability Assessment, and the Mitigation Strategy will be used by the City to help inform updates and the development of local plans, programs and policies. The City Manager and Public Works Department may utilize the hazard information when implementing the City's capital projects and the Community Development Department Planning Division may utilize the hazard information when reviewing a site plan or other type of development applications. The City will also incorporate this MJHMP into the Health, Safety, and Noise Element of their General Plan, as recommended by AB 2140.

As noted in Section 6 of the Base Plan, the City of Hanford LPT representatives will report on efforts to integrate the hazard mitigation plan into local plans, programs and policies and will report on these efforts at the annual LPT plan review meeting.

### **C.6.2 Monitoring, Evaluation and Updating the Plan**

The City will follow the procedures to monitor, review, and update this plan in accordance with Kings County as outlined in Section 6 of the Base Plan. The City will continue to involve the public in mitigation, as described in Section 6.2.1 of the Base Plan. The Fire Chief will be responsible for representing the City in the County HMPC, and for coordination with City staff and departments during plan updates. The City realizes it is important to review the plan regularly and update it every five years in accordance with the Disaster Mitigation Act Requirements as well as other State of California requirements.





## C.7 REFERENCES

*6th Cycle Regional Housing Needs Plan (RHNP)*. Lemoore, CA: Kings County Association of Governments (KCAG), 2023.

California Department of Finance, "Projections." December 2022.  
<https://dof.ca.gov/forecasting/demographics/projections/>.

California Environmental Protection Agency Office of Environmental Health Hazard Assessment (OEHHA). CalEnviroScreen Version 4.0. 2021. <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-version-20>.

California Office of Historic Preservation (OHP). "California Register of Historical Resources." Accessed July 2023. [https://ohp.parks.ca.gov/?page\\_id=21238](https://ohp.parks.ca.gov/?page_id=21238).

City of Hanford. *2035 General Plan*. 2014. <https://ci.hanford.ca.us/1288/General-Plan>

City of Hanford. *2020 Urban Water Management Plan (UWMP)*. October 2021.  
<https://www.cityofhanfordca.com/DocumentCenter/View/567/2020-Urban-Water-Management-Plan-PDF?bidId=>

Kings County. *Kings County Multi-Jurisdictional Local Hazard Mitigation Plan*. Kings County Office of Emergency Services.  
<https://www.countyofkings.com/home/showpublisheddocument/23875/637298992208470000>

National Parks Service (NPS) "National Register Database and Research." U.S. Department of the Interior. Accessed April 10, 2023.  
<https://www.nps.gov/subjects/nationalregister/database-research.htm>.

National Centers for Environmental Information (NCEI). 2023. Storm events database. National Oceanic and Atmospheric Administration. <http://www.ncdc.noaa.gov/stormevents/>

U.S. Census Bureau; American Community Survey, 2021 American Community Survey 5-Year Estimates, <https://data.census.gov/>

Western Regional Climate Center, 2023: Cooperative Climatological Data Summaries. Accessed August 2023. Available online at [https://wrcc.dri.edu/Climate/west\\_coop\\_summaries.php](https://wrcc.dri.edu/Climate/west_coop_summaries.php)