

1 CITY OF TURLOCK

1.1 Purpose

This Annex summarizes the hazard mitigation elements specific to the City of Turlock. This Annex supplements the Stanislaus 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 Stanislaus 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 Turlock. This Annex provides additional information specific to the City of Turlock, including details on the City's profile, planning process, risk assessment, and mitigation strategy for the community.

1.2 Community Profile

1.2.1 Mitigation Planning History and 2021-2022 Process

This Annex was created during the development of the 2022 Stanislaus County MJHMP update. The City of Turlock did not participate in Stanislaus County's 2017 Local Hazard Mitigation Plan (LHMP) process. However, the City of Turlock did participate in a 2010-2011 Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) process with the County. The MJHMP was approved by the County on May 24, 2011. The City of Turlock adopted the 2010 MJHMP and the 2011 City of Turlock LHMP Annex on April 12, 2011. However, the City elected not to include or report progress on any of the mitigation actions from the outdated and expired version of the MJHMP (a requirement only for plan updates following the release of FEMA's October 1, 2011 Local Mitigation Plan Review Guide). This Annex instead effectively represents a new plan for Turlock based on current development, demographics, and mitigation capabilities that addresses the City's current hazards and vulnerabilities.

During the current update process, the City of Turlock 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 Turlock. The City's LPT is also responsible for the update, implementation, and maintenance of the plan. LPT members are listed in Appendix A.

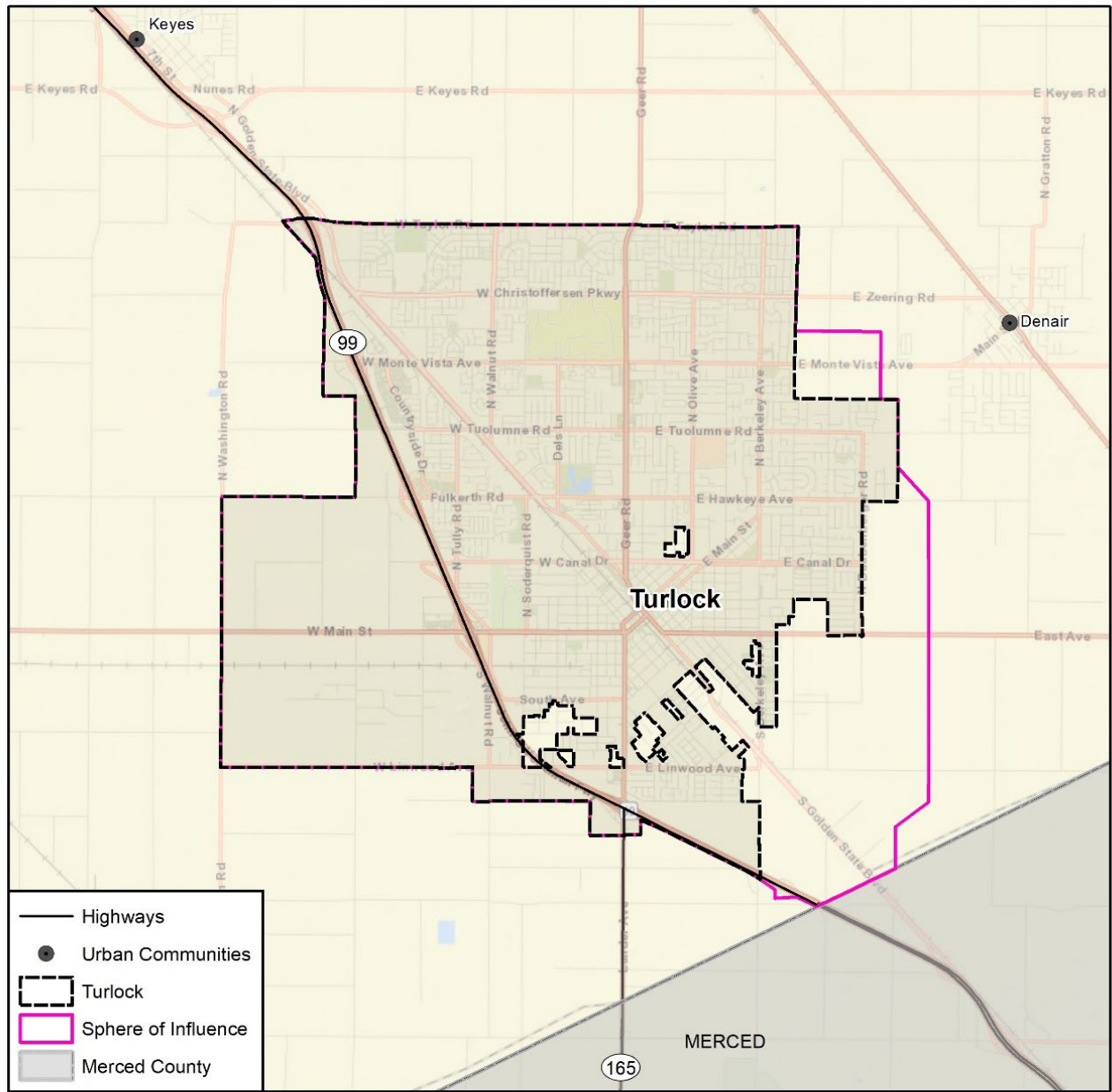
1.2.2 Geography and Climate

The City of Turlock is located in Stanislaus County, on the eastern side of California's San Joaquin Valley, 100 miles east of the San Francisco Bay Area. The City is situated along the State Route 99 (SR 99) corridor, linking it to other Central Valley cities including Stockton and Sacramento to the north and Fresno and Bakersfield to the south. Turlock remains a stand-alone city surrounded by productive agricultural land. Turlock's largest neighbor is the City of Modesto, which lies 14 miles north. The communities of Keyes, Denair, and Ceres are the closest neighboring communities to the north; Delhi, Hilmar, and Livingston are located within 10 miles to the south. Twenty miles to the west and southwest, Patterson and Newman are along the I-5 corridor. Most Turlock residents work in the City or these surrounding communities.

The City receives an average annual precipitation of 11.86 inches and receives most of this precipitation from November through March (WRCC 2022). The City experiences its average monthly highest temperature in July (78.6 °F), and its monthly lowest temperature in December (45.7 °F). The annual average precipitation is approximately 12 inches and the average rainfall over the last six years (2015-2020) was 12.2 inches (City of Turlock 2022). Similar to the rest of Stanislaus County, the City of Turlock has a mild Mediterranean climate.

Figure 1-1 below shows the City limits and Sphere of Influence (SOI) boundary for the City of Turlock. 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 10,835 acres, or 16.93 square miles.

Figure 1-1 City of Turlock



wood. Map compiled 2/2022;
 Intended for planning purposes only.
 Data Source: Stanislaus County



1.2.3 History

The history of how Turlock was named varies; however, some believe it originated from the term “turlough,” an Irish dry lake. Founded on December 22, 1871, by prominent grain farmer John William Mitchell, the City was comprised of a post office, a depot, a grain warehouse and a few other buildings. Mitchell and his brother were successful businessmen, buying land and developing large herds of cattle and sheep that were sold to gold miners and others as they arrived. They were also leaders in wheat farming and cultivated tracts of land under the tenant system. Eventually, the Mitchells owned most of the area, over 100,000 acres, from Keyes to Atwater. In the early 20th century, 20-acre lots from the Mitchell estate were sold for \$20 an acre.

Turlock experienced economic and agricultural growth and development in the early 1900s and was incorporated in 1908. A thriving community with a diverse population brought its skills, ideas, capital, culture and religious beliefs to this area. Turlock prospered and became the hub of activity throughout the end of the 19th century. A Board of Trade (known today as the Turlock Chamber of Commerce) was formed along with a school district, a newspaper, and numerous religious and civic organizations. By 1960 businesses had grown and Turlock became home to California State University, Stanislaus (Town Square Publications 2022).

1.2.4 Economy

According to Turlock's General Plan that was adopted in September 2012, Turlock's economy has traditionally been based on agriculture, agriculture-related industries (primarily food processing), and manufacturing. Its location in the heart of the San Joaquin Valley, home to some of the most fertile farmland in the world, naturally led to Turlock's agricultural heritage and employment base.

Today, the key economic drivers in Stanislaus County are retail trade, manufacturing, and public or non-profit (e.g. health care) related sectors. While the manufacturing sector reflects the regions' competitive location and labor force characteristics, the latter two sectors are primarily population-driven. Modesto currently serves as the primary employment center in Stanislaus County, providing about 70 percent of the total jobs, with Turlock in second at about 20 percent. Turlock's employment composition is reflective of the County as a whole. Turlock's major sectors are state and local government (15 percent), retail trade (14 percent), manufacturing (14 percent), health care and social assistance (12 percent) and hotel and food services (10 percent). For the County, manufacturing and retail trade represent the largest employment sectors, followed by health care and social assistance. These three sectors account for about 40 percent of total jobs in Turlock and 45 percent Countywide.

The Turlock Unified School District (TUSD) employs the highest number of employees in the City with 2,200 employees. Emanuel Medical Center is second, with over 1,500 employees. The City's poultry processing plant, Foster Farms, is the third-largest employer in the City with a total of 1,500 employees. Overall, the top ten employers employ a total of approximately 8,000 employees in the City or close to 30 percent of the total. Four of the top employers within the County are located in the City, which include California State University (CSU) Stanislaus, Emanuel Medical Center, Foster Farms, and Stanislaus County Community Services.

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

Table 1-1 City of Turlock Economic Characteristics, 2015-2019

Characteristic	City of Turlock
Families below Poverty Level (%)	11.7%
All People below Poverty Level (%)	15.5%
Median Family Income	\$66,912
Median Household Income	\$59,681
Per Capita Income	\$25,776
Population in Labor Force	62.0%
Population Employed*	57.5%
Unemployment Rate**	7.2%

Source: U.S. Census Bureau, California Department of Finance, 2015-2019 American Community Survey (ACS), 5-year estimates, www.census.gov/

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

The most common industries within a five-mile radius of Turlock are educational services, and health care and social assistance (a combined average of 26.8 percent of workers). Manufacturing and arts, entertainment, and recreation, and accommodation and food services are the other two major industries, which resonates with the information regarding manufacturing being one of Stanislaus County's major industries in Chapter 2 Community Profile of the Base Plan. The tables below show the labor force breakdown by occupations and industry based on estimates from the 2015-2019 five-year American Community Survey (ACS).

Table 1-2 City of Turlock Employment by Industry, 2015-2019

Occupation	# Employed	% Employed
Educational services, and health care and social assistance	8,680	26.8%
Retail trade	4,082	12.6%
Manufacturing	4,065	12.5%
Arts, entertainment, and recreation, and accommodation and food services	2,546	7.9%
Professional, scientific, and management, and administrative and waste management services	2,166	6.7%
Transportation and warehousing, and utilities	2,081	6.4%
Agriculture, forestry, fishing and hunting, and mining	1,631	5.0%
Construction	1,595	4.9%
Public administration	1,581	4.9%
Finance and insurance, and real estate and rental and leasing	1,215	3.8%
Wholesale trade	1,162	3.6%
Other services, except public administration	983	3.0%
Information	612	1.9%
Total	32,399	100%

Source: U.S. Census Bureau, California Department of Finance, 2015-2019 American Community Survey (ACS), 5-year estimates, www.census.gov/

*Excludes armed forces

Table 1-3 City of Turlock Employment by Occupation, 2015-2019

Occupation	# Employed	% Employed
Management, business, science, and arts occupations	10,789	33.3%
Service occupations	5,929	18.3%
Sales and office occupations	6,674	20.6%
Natural resources, construction, and maintenance occupations	3,337	10.3%
Production, transportation, and material moving occupations	5,637	17.4%
Total	32,399	100%

Source: U.S. Census Bureau, California Department of Finance, 2015-2019 American Community Survey (ACS), 5-year estimates, www.census.gov/

*Excludes armed forces

1.2.5 Population

In May 2021, the California Department of Finance (DOF) released population data for the state demographic report. According to the report the City of Turlock had a population of 74,820 persons as of January 1, 2021, and lost 210 residents from the previous year. Select demographic and social characteristics for the City from the 2015-2019 ACS and the California Department of Finance, are shown in Table 1-4.

Table 1-4 City of Turlock Demographic and Social Characteristics, 2015-2019

Characteristic	City of Turlock
Gender/Age	
Male	47.4%
Female	52.6%
Median age (years)	34.2
Under 5 years	6.7%
Under 18 years	26.6%

Characteristic	City of Turlock
65 years and over	13.1%
Race/Ethnicity	
White	50.4%
Asian	6.0%
Black or African American	2.4%
American Indian/Alaska Native	0.6%
Hispanic or Latino (of any race)	37.4%
Native Hawaiian and Other Pacific Islander	0.2%
Some other race	0.4%
Two or more races	2.6%
Education*	
% High school graduate or higher	81.6%
% with Bachelor's Degree or Higher	25.1%
Social Vulnerability	
% with Disability	12.7%
% Language other than English spoken at home	41.9%
% Speak English less than "Very Well"	15.5%
% of households with a computer	92.9%
% of households with an Internet subscription	86.8%
% of households with no vehicle available	6.6%

Source: U.S. Census Bureau, California Department of Finance, 2015-2019 American Community Survey (ACS), 5-year estimates, www.census.gov/

* Population 25 years and over

The following table with information from the ACS 5-year estimates (2015-2019) is related to housing occupancy in the City of Turlock.

Table 1-5 City of Turlock Housing Occupancy and Units, 2015-2019

Housing Characteristic	Estimate	Percentage
Housing Occupancy		
Total Housing Units	26,099	100%
Units Occupied	25,182	96.5%
Vacant	917	3.5%
Housing Units		
1-unit detached	17,589	67.4%
1-unit attached	1,015	3.9%
2 units	783	3.0%
3 or 4 units	1,797	6.9%
5-9 units	1,398	5.4%
10-19 units	833	3.2%
20 or more units	1,921	7.4%
Mobile Home	731	2.8%
Boat, RV, van etc.	32	0.1%
Housing Tenure		
Owner Occupied	13,515	53.7%
Renter Occupied	11,667	46.3%

Source: U.S. Census Bureau, California Department of Finance, 2015-2019 American Community Survey (ACS), 5-year estimates, www.census.gov/

1.2.6 Disadvantaged Communities

The City is made up of numerous census tracts. Some of these census tracts have higher housing burdens, for example than others in the City. There are three census tracts in particular (6099003906, 6099003908, and 6099003802) located in the northeastern, northwestern and southwestern portions of the City with higher housing burdens. Based on information from the California Office of Environmental Health Hazard Assessment (OEHHA) tool, approximately 30%, 28% and 26% of the people residing within these census tracts respectively are housing-burdened low-income households. Housing-burdened low-income households are households that are both low income and highly burdened by housing costs. California has very high housing costs relative to the rest of the country, which can make it hard for households to afford housing ("CalEnviroScreen 4.0" 2021). Households with lower incomes may spend a larger proportion of their income on housing and may suffer from housing-induced poverty ("CalEnviroScreen 4.0" 2021). These households are also more likely to be adversely affected during a hazard event and less likely to recover. In other words, in Turlock within these three census tracts, there are approximately 4,515 housing units, and about 3,054 of them are considered low income and 1,279 are considered housing burdened.

The OEHHA CalEnviroScreen tool applies a formula to generate a combined ranking score that considers 21 indicators for each Census tract that cover pollution indicators, such as diesel emissions and concentrations of toxic clean-up sites and population indicators, such as poverty and unemployment rates. The Census tracts with CalEnviroScreen rankings between 75 and 100 percent (i.e., a combined score in the top 25 percent of all Census tracts in the State) are considered to be disadvantaged communities (DACs). Those three census tracts with higher housing burdens in the City with a higher housing burden have CalEnviroScreen rankings of 91, 87 and 83, meaning the percent of housing burdened is higher than 91%, 87% and 83% of the rest of California respectively. The City can use this 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.

1.2.7 Development Trends

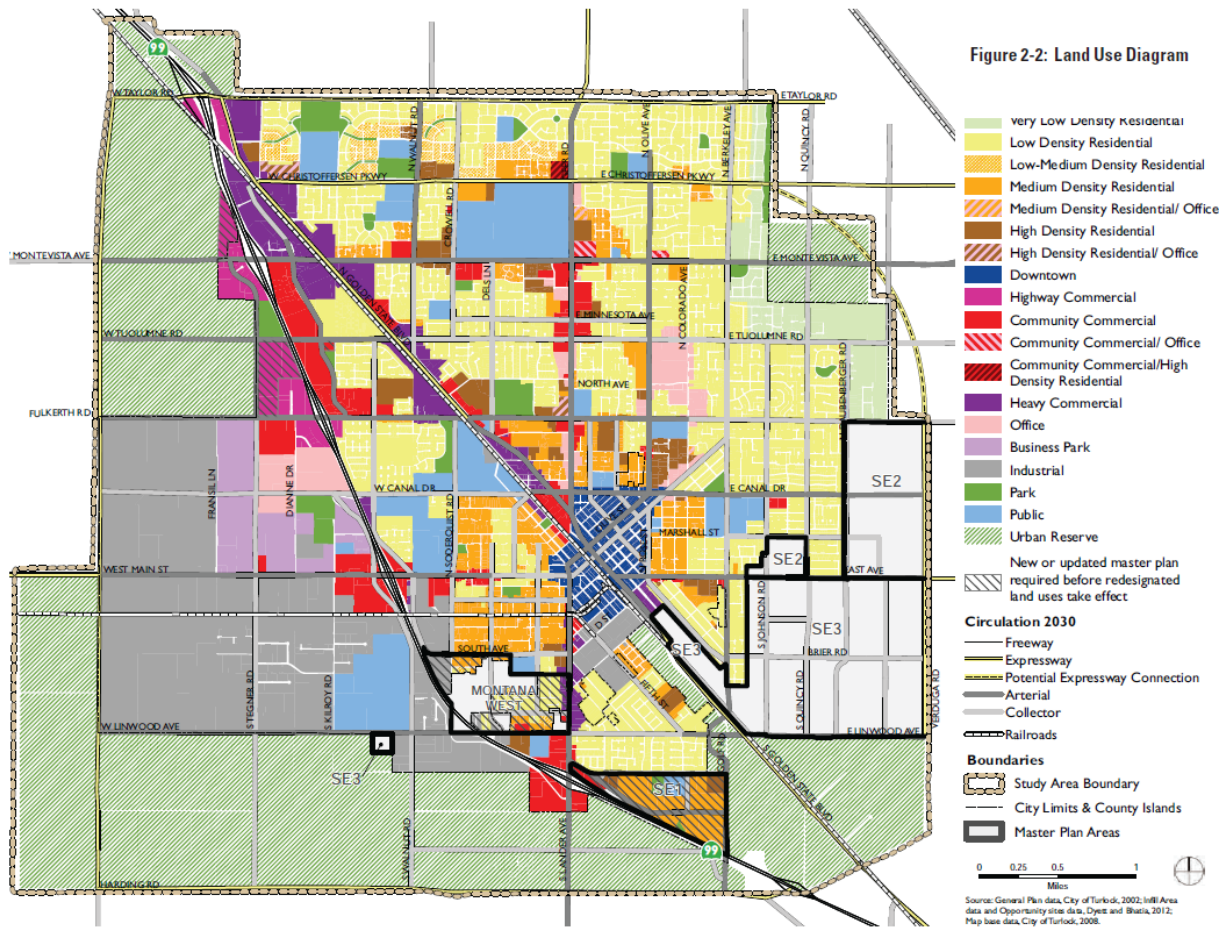
Turlock's current land use pattern and built form are products of the City's historical growth within an agricultural area. Like many San Joaquin Valley towns from the time the City was incorporated in 1908, the original downtown core was focused around the railroad station, with streets arranged in a grid oriented to the tracks. The town proceeded to grow outward, shifting to an orthogonal north-south grid matching the rural road and parcel pattern around it. Golden State Boulevard, paralleling the railroad, was part of the original highway through the Central Valley, which became SR 99 in 1926.

The City's growth since the 1940s has mainly occurred north of the downtown area and east of the railroad. When the California State University, Stanislaus campus opened in 1965, it was still well to the north of town. By the end of the 1980s housing boom, Turlock had reached Zeering Road on the north and Daubenberger Road on the east. Completion in 1973 of the SR 99 freeway bypass, a long arc to the west, also drew development west of the railroad. Beginning in the 1990s, Turlock's growth occurred through a master planning process, one area at a time. Almost all the recent residential development has occurred north of Monte Vista Avenue on the east side of the railroad. The "Northwest Triangle," north of Fulkerth Road between the railroad and SR 99, has also grown to be a major new commercial area.

It is the City's goal to continue to provide a balance of jobs and housing in Turlock, which stimulates the local economy, reduces commuting, and maintains Turlock's competitiveness in the region. Therefore, the master planning process has extended to the non-residential sector. In 2006, Turlock completed the Westside Industrial Specific Plan (WISP), which identified land use, transportation improvements, infrastructure improvements, and design guidelines for industrial and business park uses for some 2,500 acres west of SR 99. Aided by the WISP, the City's industrial sector is expanding and shifting to this area.

Figure 1-2 below, identifies the location of all land uses within the City of Turlock. The Land Use Diagram is to be used and interpreted in conjunction with the text and policies included in the General Plan to direct land-use decisions that integrate the community's vision.

Figure 1-2 City of Turlock General Plan, Land Use Diagram



Source: City of Turlock 2012

The Urban Reserve land use classification is established to identify land that is reserved for future unspecified urban uses. The City intends that land classified as Urban Reserve should remain agricultural use throughout the planning period (through 2030) but may eventually give way to urban uses as the community’s economic needs continue to evolve (likely beyond the time horizon of the General Plan).

Other land use classifications are Master Plan Areas. These classifications correspond to areas that shall be planned, pre-zoned, and annexed to the City one at a time, according to the phasing diagram. Rather than depicting specific plan uses on parcels, the Master Plan Area designation requires that each area achieve a specific mix of land uses, intensities, and other requirements that are to be determined through the preparation of a master plan for each one.

As shown in Table 1-6, full buildout of the General Plan, including all master plan areas, would result in a total of around 37,120 housing units citywide (including existing) and a cumulative population of around 104,480. Of these, new housing units and population would be 12,800 and 36,000 respectively.

Table 1-6 City of Turlock General Plan, Buildout by Land Use Designation: Residential

Land Use	Acres	Average Gross Density (du/acre)	Housing Units	Population
Very Low Density Residential	289	1.6	460	1,300
Low Density Residential	2,916	5.0	14,580	41,050
Low/Medium Density Residential	408	7.5	2,930	8,230
Medium Density Residential	875	11.0	8,890	25,030

Land Use	Acres	Average Gross Density (du/acre)	Housing Units	Population
High Density Residential	345	22.5	7,130	20,070
Office and/or High Density Residential	15	22.5	7,130	20,070
Office and/or Medium Density Residential	6	11.0	30	100
Community Commercial and/or Office and/or High Density Residential	9	22.5	60	180
Downtown Mixed Use	164	22.5	2,780	7,810
Neighborhood Center	22	22.5	80	230
Total	5,049	3.2%	37,120	104,480

Source: City of Turlock 2012

Table 1-7 shows the potential non-residential buildout in terms of square feet of new buildings and the number of jobs. Jobs are calculated based on standard assumptions about square footage per employee for various employment types. An average vacancy rate of 7 percent is also assumed.

Table 1-7 City of Turlock General Plan, Buildout by Land Use Designation: Non-Residential

Land Use	Acres	Average Gross Density (du/acre)	Housing Units	Population
Downtown Mixed Use	164	1.0	1,791,120	4,160
Office	255	0.35	2,541,250	7,820
Office and/or High Density Residential	15	0.35	112,770	350
Community Commercial	510	0.25	5,550,210	10,320
Community Commercial and/or Office	15	0.30	198,380	460
Community Commercial and/or Office and/or High Density Residential	9	0.30	75,580	180
Office and/or Medium Density Residential	6	0.35	47,620	150
Heavy Commercial	367	0.35	5,593,930	8,670
Highway Commercial	172	0.35	2,618,140	4,870
Industrial	1,857	0.60	12,555,430	11,680
Business Park	272	0.35	621,110	1,925
Neighborhood Center	22	0.30	215,260	400
Total	3,664		31,920,900	51,040

Source: City of Turlock 2012

Turlock's previous General Plan succeeded in expanding the retail sector in the City and there remains ample land designated for retail uses that are still undeveloped. Regarding retail, the focus is to maintain the viability of existing retail, allow regional-serving retail to develop at key locations along the freeway, and encourage the development of small, neighborhood-serving commercial uses in new neighborhoods that are walkable to a majority of new homes. Also, through the creation and implementation of the Westside Industrial Specific Plan (WISP), Turlock has reaffirmed the continuing importance of industrial development as the main source of jobs and economic growth in the City.

The City of Turlock has adopted a wise growth management strategy, which has enabled the City to maintain fiscal stability, preserve farmland, and develop desirable new neighborhoods for its growing population. One logically sized growth area is selected at a time and a master plan is established for its development. Seventy percent of the master plan area must be issued building permits before the next can commence. The City has distinguished itself this way over the last planning period and wants to carry forward this successful method of growth and development over the next planning period. The strategy has resulted in attractive new neighborhoods, complete infrastructure, and well-maintained new roads and public facilities. Area-wide plans must address land use, circulation, housing, open space, infrastructure, public facilities, and public services consistent with the General Plan. The City also designated neighborhoods rather than assigning specific land use designations to individual parcels. This approach

identifies future master plan areas for new residential neighborhoods and specifies the locations, boundaries, and phasing of those master plans.

The City of Turlock has seen steady development in the industrial area with food processing businesses such as Blue Diamond and Super Store industries. The construction of a 1,294,095-square-foot warehouse building for Amazon was completed in May of 2022 with operations anticipated to begin in September. In-fill residential growth has also been steady with 78 new single-family residences constructed in 2021. Land use entitlements were also issued for four hundred and four multi-family residential units in 2021 so it is anticipated the City will see an increase in the construction of multi-family residential projects over the next few years through 2025.

1.2.8 Future Development

The areas located in the SOI shown in Figure 1-1 are areas each City plans to grow into and 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.

The City regularly updates its building codes to meet minimum standards in the California Building Code (CBC) last updated in 2019. Compliance with the 2019 CBC ensures construction standards are met and hazards risks related to earthquake, landslides, flood, severe weather, and wildfire are minimized. The City also complies with the National Flood Insurance Program (NFIP) and all development must meet minimum flood protection standards set forth by FEMA. Participation in the 2022-2027 MJHMP update planning process also ensures the City of Turlock continually reviews and updates hazard information and takes this information into account when reviewing development applications. This process will help the City make better decisions on where, when, and how future development occurs.

During this plan update process, a 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. Table 1-8 is the summary of the SOI total exposure for the City of Turlock.

Table 1-8 Sphere of Influence Total Exposure Summary

Property Type	Improved Parcel Count	Improved Value	Estimated Content Value	Total Value
Commercial	22	\$13,932,645	\$13,932,645	\$27,865,290
Industrial	46	\$21,246,171	\$31,869,257	\$53,115,428
Non-Assessable	1	\$89,302	\$89,302	\$178,604
Residential	398	\$48,487,889	\$24,243,945	\$72,731,834
Residential-Income	55	\$7,594,517	\$3,797,259	\$11,391,776
Rural, Farm, Agricultural	107	\$22,765,451	\$22,765,451	\$45,530,902
Unclassified	23	\$8,220,968	\$8,220,968	\$16,441,936
Vacant Commercial	2	\$118,008	\$118,008	\$236,016
Vacant Residential	2	\$47,961	\$23,981	\$71,942
Total	656	\$122,502,912	\$105,060,814	\$227,563,726

Source: Stanislaus County Assessor, Wood analysis

2 HAZARD IDENTIFICATION AND SUMMARY

The City of Turlock 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 2-1). There are no hazards that are unique to Turlock, although the flood risk in the City is greater and distinct from the flooding risk in the County's planning area. The purpose of this section is to profile the City of Turlock hazards and assess the City's specific 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 sections. The information

in the City of Turlock’s risk assessment summarizes only those hazards 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 2-1 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 Safety Element addresses safety issues including hazardous materials and operations, seismic and geologic hazards, and flooding and drainage (including dam inundation). Among these hazards in the General Plan, dam incidents is further addressed in this Annex, while seismic and geologic hazards, flooding, and wildfire hazards are further addressed in the Base Plan. Climate change considerations are also addressed in the Base Plan.

Table 2-1 City of Turlock —Hazard Profiles

Hazard	Geographic Area	Probability of Future Occurrence	Magnitude/Severity (Extent)	Overall Significance	Priority Hazard
Agriculture Pest and Disease	Extensive	Likely	Negligible	Low	No
Aquatic Invasive Species	Limited	Likely	Negligible	Low	No
Cyber Threats	Significant	Likely	NA	Medium	No
Dam Incidents	Extensive	Unlikely	Catastrophic	High	Yes
Drought	Extensive	Likely	Critical	High	Yes
Earthquake	Extensive	Occasional	Critical	Medium	No
Extreme Heat	Significant	Highly Likely	Critical	High	Yes
Flood	Limited	Likely	Negligible	Low	No
Landslide, Mud/Debris Flow, Rockfall	Limited	Occasional	Negligible	Low	No
Public Health Hazards: Pandemic/Epidemic	Extensive	Occasional	Critical	High	No
Severe Weather: Dense Fog	Extensive	Likely	Critical	Medium	No
Severe Weather: Hail, Heavy Rain, Thunderstorms, Lightning	Extensive	Highly Likely	Critical	High	No
Severe Weather: High Wind/Tornado	Extensive	Highly Likely	Critical	High	No
Wildfire	Limited	Occasional	Negligible	Low	No
Geographic Area Limited: Less than 10% of planning area Significant: 10-50% of planning area Extensive: 50-100% of planning area Probability of Future Occurrences Highly Likely: Near 100% chance of occurrence in next year or happens every year. Likely: Between 10 and 100% chance of occurrence in next year or has a recurrence interval of 10 years or less. Occasional: Between 1 and 10% chance of occurrence in the next year or has a recurrence interval of 11 to 100 years. Unlikely: Less than 1% chance of occurrence in next 100 years or has a recurrence interval of greater than every 100 years.		Magnitude/Severity (Extent) Catastrophic—More than 50 percent of property severely damaged; shutdown of facilities for more than 30 days; and/or multiple deaths Critical—25-50 percent of property severely damaged; shutdown of facilities for at least two weeks; and/or injuries and/or illnesses result in permanent disability Limited—10-25 percent of property severely damaged; shutdown of facilities for more than a week; and/or injuries/illnesses treatable do not result in permanent disability Negligible—Less than 10 percent of property severely damaged, shutdown of facilities and services for less than 24 hours; and/or injuries/illnesses treatable with first aid Significance Low: minimal potential impact Medium: moderate potential impact High: widespread potential impact			

2.1 Vulnerability Assessment

The intent of this section is to assess Turlock’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 in the Base Plan. For dam incidents, this vulnerability assessment analyzes the population, property, and other assets at risk to hazards ranked of medium or high significance that may vary from other parts of the planning area. For the other hazard profiles, the City described the specific vulnerabilities in the community by developing problem statements that qualitatively summarize areas of concern associated with the hazards that vary from other parts of the County planning area. These specific vulnerabilities are referred to as “problem statements” in the risk assessment. The problem statements are based on the risk assessment mapping and modeling and where spatial data and maps are not available, they are based on specific input from the City LPT. With this information mitigation actions were then developed to address these specific vulnerabilities; this process provides the connection between the problem statement and the mitigation action.

The information to support the hazard identification and risk assessment was based on a combination of the previous LHMP for the City and County and jurisdiction-specific information collected during the 2021 update. A Data Collection Guide and associated worksheets were distributed to each participating municipality or special district to complete during the update process in 2021. 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 4-2). 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.

Note: The hazard “Significance” reflects the overall ranking for each hazard and is based on the City of Turlock’s LPT input from the Data Collection Guide and 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 2-1 above reflect the hazards that could potentially affect City. The discussion of vulnerability for each of the following hazards is located in Section 2.3 Estimating Potential Losses, which includes an overview of the local issues and areas of concern associated with the hazard, a problem statement for the priority hazard, and a quantitative risk assessment, where spatial data is available. Based on this analysis, the priority hazards for the City of Turlock for mitigation are identified below.

- Dam Incidents
- Drought
- Extreme Heat

Cyber Attack, Earthquake, Pandemic/Epidemic and Severe Weather hazards are not addressed in this vulnerability assessment as the exposure is similar to the overall County exposure, and the potential for losses are difficult to quantify specific to the City of Turlock. Additionally, hazards assigned a significance rating of Low 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. In the City of Turlock, those hazards include: Agriculture Pests and Disease, Aquatic Invasive Species, Flood, Landslide (Mud/Debris Flow, Rockfall), and Wildfire. For example, both landslide and wildfire hazards were assessed for the City and based on the analysis and mapping neither hazard resulted in significant vulnerabilities or impacts.

2.2 Assets

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

2.2.1 Property Exposure

The following data on property exposure is derived from the Stanislaus County 2021 Parcel and Assessor 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 2-2 shows the exposure of properties (e.g., the values at risk) broken down by property type for the City of Turlock.

Table 2-2 City of Turlock Property Exposure by Type

Property Type	Improved Parcel Count	Improved Value	Estimated Content Value	Total Value
Commercial	832	\$924,925,946	\$924,925,946	\$1,849,851,892
Industrial	357	\$579,530,828	\$869,296,242	\$1,448,827,070
Non-Assessable	4	\$244,121	\$244,121	\$488,242
Residential	17,103	\$3,163,378,554	\$1,581,689,277	\$4,745,067,831
Residential-Income	227	\$61,684,538	\$30,842,269	\$92,526,807
Rural, Farm, Agricultural	72	\$8,988,896	\$8,988,896	\$17,977,792
Unclassified	739	\$556,407,740	\$556,407,740	\$1,112,815,480
Vacant Commercial	60	\$10,715,467	\$10,715,467	\$21,430,934
Vacant Residential	19	\$5,749,873	\$2,874,937	\$8,624,810
Total	19,413	\$5,311,625,963	\$3,985,984,895	\$9,297,610,858

Source: Stanislaus County Assessor, Wood analysis

2.2.2 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.

Table 2-3 shows a summary of the critical facilities within the City of Turlock. Critical facilities and other community assets as important to protect in the event of a disaster.

Table 2-3 Critical Facilities within the City of Turlock

Lifeline	# of Critical Facilities
Communication	13
Energy	7
Food, Water, Shelter	13
Hazardous Materials	21
Health and Medical	27
Safety and Security	24
Transportation	20
Total	125

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

- Turlock Fire and Emergency Services Station 30
- Turlock Rural Fire Protection District Station 30
- Turlock Police Department building
- 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
- California State University, Stanislaus
- Emergency shelter
- Public Library
- Hospital facilities, nursing homes and dialysis centers

There are also several designated shelters in Turlock for use in an emergency event such as Sunrise Christian Church and Salvation Army Turlock.

2.2.3 Historic, Cultural and Natural Resources

The following historical resources are located in the City of Turlock:

Property Name	Register	Jurisdiction	Date Listed
Temporary Detention Camps For Japanese Americans-Turlock Assembly Center	State Historical Landmark	Turlock	5/13/1980
Turlock Carnegie Library	National	Turlock	1/7/1993
Turlock High School Auditorium And Gymnasium	National	Turlock	1/11/1991

Source: National Register of Historic Places 2022; California Register of Historical Places 2022

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. As noted in the City's General Plan Conservation Element, according to California Natural Diversity Database (CNDDDB), two special-status species – Valley elderberry longhorn beetle and Swainson's hawk, are presumed to be present in the City. 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.

2.3 Estimating Potential Losses

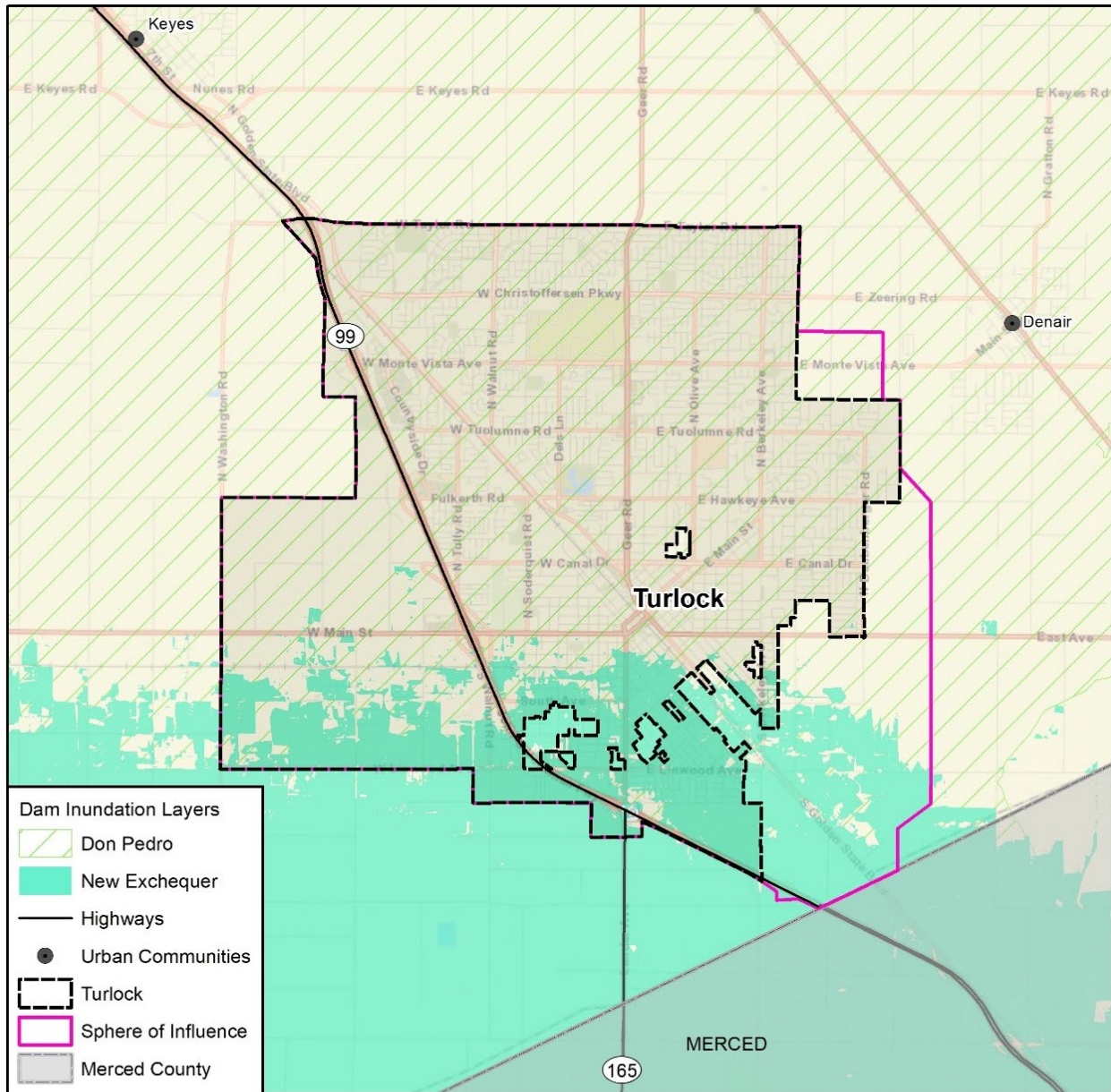
2.3.1 Dam Incidents

Protection from flood hazards created by dam failures is critical to the safety and well-being of Turlock residents. A dam vulnerability assessment was completed during the 2021 update, following the methodology described in Section 4 of the Base Plan. Dam inundation areas from the Don Pedro and New Exchequer dams with the City of Turlock are shown in

Figure 2-1. While the Don Pedro Dam has the potential to inundate all of the City, the New Exchequer only has the potential to inundate the southwestern portion of the City. Table 2-4 summarizes the values at risk within Don Pedro dam's inundation area. Don Pedro and New Exchequer dams are both rated as high hazard. Both of them are also rated as Extremely High by the California Department of Water Resources (DWR), Division of Safety of Dams (DSOD). Extremely High rated dams are expected to cause considerable loss of human life or result in an inundation area with a population of 1,000 or more.

All areas within City Limits and SOI are vulnerable to dam incidents. The City would experience catastrophic damage if Don Pedro dam were to breach. A total of 124 critical facilities are located within dam inundation areas.

Figure 2-1 City of Turlock Potential Dam Inundation Areas



Map compiled 2/2022;
Intended for planning purposes only.
Data Source: Stanislaus County,
Department of Water Resources,
Division of Safety of Dams (DSOD)

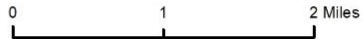


Table 2-4 Don Pedro Dam Inundation

Property Type	Improved Parcel Count	Population
Commercial	832	
Industrial	357	
Non-Assessable	4	
Residential	17,103	49,086

Residential-Income	227	651
Rural, Farm, Agricultural	72	
Unclassified	739	
Vacant Commercial	60	
Vacant Residential	19	
Total	19,413	49,737

Source: California DSOD, National Inventory of Dams, Stanislaus County Assessor's Office

Future Development

The results of SOI and dam analysis are shown in Table 2-5 .

Table 2-5 Sphere of Influence Areas Exposed to Don Pedro Inundation

Property Type	Improved Parcel Count	Population
Commercial	22	
Industrial	46	
Non-Assessable	1	
Residential	398	1,142
Residential-Income	55	158
Rural, Farm, Agricultural	107	
Unclassified	23	
Vacant Commercial	2	
Vacant Residential	2	
Total	656	1,300

Source: Stanislaus County Assessor, Wood analysis

2.3.2 Drought

The City of Turlock provides water service to more than 3,000 connections and approximately 74,300 people in its service areas, some of which extend to the west of the City. The City relies on both groundwater supplies from City-owned and operated wells from the Turlock Groundwater Subbasin and wholesale surface water from the Turlock Irrigation District (TID) supplied by the Stanislaus Regional Water Authority (SRWA) Regional Surface Water Supply Project (RSWSP) (City of Turlock 2020). However, most of the City's municipal water supply is groundwater.

The City water system consists of 19 active wells and approximately 250 miles of water pipeline. While the City relies on groundwater for its sole source of drinking water, due to the expected increase in water demand due to urbanization in the City and the surrounding agricultural pumping in the region, the City has diversified its water supply portfolio. The City has also planned for increasing drought conditions due to climate change, related to less precipitation, more variability in the water supply, and the potential for over drafting the groundwater basins and supply; some of these water supply policies are referenced in the New Growth Areas and Infrastructure Element of the City's General Plan. As a result, the City entered into an agreement for the delivery of wholesale TID surface water from the SRWA RSWSP. The addition of surface water will allow the City to rely less on groundwater and be able to reserve groundwater supply for periods of drought when surface water is in short supply, improving the City's long-term resiliency to drought. The project will also facilitate groundwater recharge of the basin and increase the emergency, operational, fire flow and potable water storage capacity of the City's system to meet increased demands (City of Turlock 2020).

Regarding water conservation, as noted in the 2020 UWMP, the City's implementation of mandatory conservation measures (i.e. SBx7-7, SB407, AB 1881, California Green Building Code, and energy conservation programs that impact water use, such as low water use clothes and dishwashing machines) will further increase conservation efforts over time. For example, new development is required by law to use at least 20% less water than existing development. Conservation and efficient water use will continue

to be an important part of managing demands and reducing the amount of source water required (City of Turlock 2020).

Although the City has entered into agreements with the TID to purchase surface water, given the City still relies primarily on groundwater, the continued focus on diversification of the City's water supply should be considered given the potential changes that may occur in groundwater quantity, quality, reliability, and cost. Like many areas in California, the City is seeing declines in the local groundwater table and climate change could impact the City due to the potential reduction in groundwater recharge and runoff, further increasing the concerns related to groundwater overdraft and declining groundwater quality. Future state groundwater regulations are also expected to address this problem eventually, but this may also place restrictions on the City's access to local groundwater in the future. Nevertheless, groundwater is, and is expected to continue to be, a key water supply source for the City.

2.3.3 Extreme Heat

The frequency of heat waves has been increasing in recent years across the County and the City of Turlock. As noted in the County Base Plan, climate change will continue to cause more extreme heat events and studies show that, by the end of this century, the number of days with temperatures reaching or exceeding 100°F is projected to increase as a result of climate change. As temperatures rise and extreme heat events last longer and become more severe and frequent, they will result in a rise in health problems and deaths caused by heat. During the planning process, The City's LPT expressed concern regarding the potential impacts these extreme heat events could have on the City and rated extreme heat as a priority hazard.

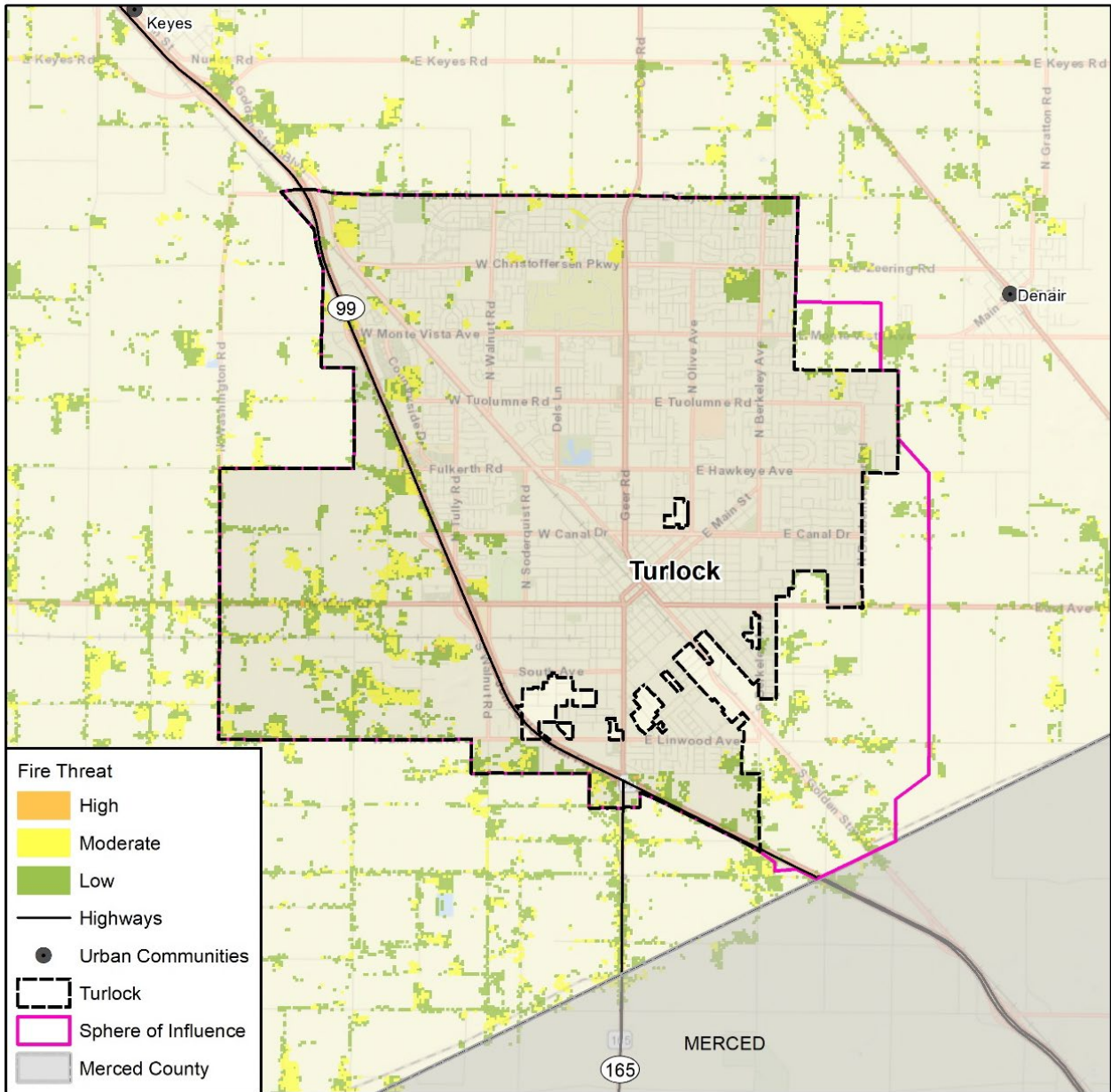
2.3.4 Flood

The primary types of flood events in Stanislaus County that may impact the City of Turlock are riverine and local urban flooding. 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. For the City of Turlock, flood risk is limited to local urban flooding and the result of rainfall, topography, soil and impermeable features, and the City's urban stormwater system. The City is not within a designated Federal Emergency Management Agency (FEMA) 100-year or 500-year floodplain. While there are waterway in the vicinity of the City, the only water features in the City are irrigation canals, stormwater detention basins, and freshwater ponds. The City geography consists of primarily flat terrain and only experiences shallow flooding after heavy rainfall during the winter months (City of Turlock 2022). As a result the City has a low risk of a major flood event. Therefore, flood hazards are rated as low for the City and included in this analysis for public awareness and planning purposes only.

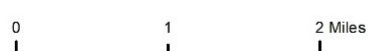
2.3.5 Wildfire

As shown in Figure 2-2, there are areas within the City limits that have moderate or low wildfire threat; these areas are mostly within the southwester portion and southern portion of the City. No area in the City has high fire threat. Therefore, wildfire is rated as low for the City and included in this analysis for public awareness and planning purposes only.

Figure 2-2 City of Turlock Wildfire Threat Areas



wood. Map compiled 2/2022;
Intended for planning purposes only.
Data Source: Stanislaus County, CALFIRE, FRAP



3 CAPABILITY ASSESSMENT

Capabilities are the programs and policies currently in use to reduce hazard impacts or that could be used to implement hazard mitigation activities. This capabilities assessment is divided into five sections: regulatory mitigation capabilities, administrative and technical mitigation capabilities, fiscal mitigation capabilities, mitigation 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 and shared any updates or changes through the Turlock Data Collection 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 Wood 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 Turlock's capabilities are summarized below.

3.1 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 Turlock.

Table 3-1 City of Turlock —Regulatory and Planning Capabilities

Regulatory Tool (ordinances, codes, plans)	Yes/No	Comments
General Plan	Yes	Adopted September 2012
Zoning ordinance	Yes	Title 9
Subdivision ordinance	Yes	Title 11
Growth management ordinance	No	No
Floodplain ordinance	No	No
Other special purpose ordinance (stormwater, steep slope, wildfire)	Yes	Chapter 6-8 Storm Water Management and Urban Runoff Pollution Control Chapter 4-3 Fire Codes and Administration
Building code	Yes	Chapter 8-1 Building Code Standards
Fire department ISO rating	Yes	Rating 2
Erosion or sediment control program	Yes	Chapter 6-8 Storm Water Management and Urban Runoff Pollution
Stormwater management program	Yes	Storm Water Master Plan, Adopted October 2013
Site plan review requirements	No	No
Capital improvements plan	Yes	Fiscal Year 2021-2022 through 2025-2026 (most recent)
Economic development plan	Yes	Economic Development Strategic Plan, Adopted in 2017
Local emergency operations plan	No	
Other special plans	No	
Flood insurance study or other engineering study for streams	Yes	Included in the County's FIS, which was revised on August 24, 2021
Elevation certificates (for floodplain development)	No	No
Other		Water Efficient Landscape Ordinance

Turlock General Plan (2012)

The General Plan governs all City actions relating to Turlock's growth and development. It is both a long-range vision and a guide to ongoing decision-making and near-term actions. It expresses the ideas and desires of the community. The defined policies, maps, standards, and guidelines outline what actions must be implemented to accommodate population and employment growth over 20 years.

The Plan is a document for landowners and developers to consult prior to formulating development proposals, and for City officials to consult when reviewing proposals for private development and public projects. As a guide to the City's physical development, the Plan offers criteria for evaluating the consistency and desirability of development proposals, and it also sets forth actions to be undertaken by the City. These range from public works projects to revisions of the Zoning Ordinance. Because of the requirements that a variety of other City actions be consistent with the General Plan, regular ongoing use

of the Plan is essential. Additionally, the General Plan can help guide shorter-term strategic and financial planning for the City.

Emergencies Organizations and Functions Ordinance, Chapter 4-2

The purpose of the Ordinance is to provide for the preparation and carrying out of plans for the protection of persons and property within the City in the event of an emergency. The Chapter sets the direction of the Emergency Organization and the coordination of the emergency functions of the City with all other public agencies, corporations, organizations and affected private persons.

The Ordinance establishes the Disaster Council membership, the Disaster Council's powers and duties, which include developing and recommending for adoption by the city council, emergency and mutual aid plans and agreements, and such ordinances and resolutions and rules and regulations as are necessary to implement such plans and agreements. The Ordinance mentions that the City Manager shall be the chair of the Turlock Disaster Council, and the City Manager shall also be the Director of Emergency Services. The Director of Emergency Services shall be the vice-chairperson of the Turlock Disaster Council. Furthermore, the ordinance mentions that the Turlock Disaster Council shall be responsible for the development of the City of Turlock Emergency Plan.

Fire Codes and Administration Ordinance, Chapter 4-3

The City of Turlock adopts the California Fire Code, 2019 Edition, Appendix Chapter 4, and Appendices B, BB, C, CC, D, E, F, G, I, N and O with errata, which prescribe regulations governing conditions hazardous to life and property from fire and explosion. The City of Turlock also adopts the current edition of the National Fire Codes published by the National Fire Protection Association (NFPA) as a secondary code.

Storm Water Management and Urban Runoff Pollution Control, Chapter 6-8

The purpose of this chapter is to protect and promote the health, safety, and general welfare of the citizens of the City through the effective prohibition and reasonable control of non-stormwater discharges to the municipal separate storm sewer system (MS4) from spills, dumping or disposal of materials other than storm water, and by reducing pollutants in urban storm water discharges to the maximum extent practicable. This chapter intends to assist in the protection and enhancement of the water quality of local watercourses, water bodies, and wetlands (receiving waters) in a manner pursuant to and consistent with the Federal Water Pollution Control Act (33 U.S.C. Section 1251 et seq.) by reducing pollutants in stormwater discharges and by limiting non-storm discharges into the MS4 to the maximum extent practicable. Moreover, through a program employing watershed-based approaches that balance environmental and economic considerations, the City seeks to protect and promote the public health, safety, and general welfare of its citizens.

3.2 Administrative and Technical Capability

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

Table 3-2 City of Turlock —Personnel Capabilities

Personnel Resources	Yes/No	Department/Position	Comments
Planner/engineer with knowledge of land development/land management practices	Yes	Planning Division	
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	Building and Safety Division	
Planner/engineer/scientist with an understanding of natural hazards	Yes	Planning Division	
Personnel skilled in GIS	No		
Full time building official	Yes	Building and Safety Division	
Floodplain manager	N/A	The City of Turlock does not have a floodplain management ordinance	The City is not near mapped floodplains.

Personnel Resources	Yes/No	Department/Position	Comments
Emergency manager	Yes	City Manager (Director of Emergency Services)	
Grant writer	Yes	Administration	
Other personnel	Yes	Multiple agencies and departments with support personnel expanding capabilities for mitigation	
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	No		
Warning Systems/Services (Reverse 9-11, cable override, outdoor warning signals)	No		
Other			

City Council

As the elected legislative body of the City of Turlock, the City Council has overall responsibility for the scope, direction and financing of City services. The City Council establishes local law and policy that is administered and implemented through full-time staff under the Council-Manager form of government. The Council is also responsible for establishing land use policies through the General Plan and zoning regulations.

Under the Council-Manager form of government, the City Council provides policy direction to the City Manager, who is responsible for administering City operations. In setting policy, the Council works closely with citizen advisory commissions and committees, considers staff information and recommendations, and receives comments from interested parties and the general public.

The City Council also serves as the governing board of the Turlock Redevelopment Agency, which administers redevelopment activity in the designated project areas that comprise approximately one-half of the City.

City Manager

Under the Council-Manager form of government, the City Council appoints the City Manager to serve as chief administrative officer providing direction for all departments in accordance with the policies established by the City Council. The City Manager is committed to providing supportive leadership that creates an environment in which the community, City Council and all employees work together using their abilities to the fullest to enhance the overall quality of life in Turlock.

The City Manager appoints department heads of the City's five operating departments and is responsible for assuring that City services are performed in accordance with City Council policies and within the City's resources. The City Manager submits the annual budget to the City Council for their consideration and is responsible for its administration following approval by the City Council. The City Manager also serves as Executive Director of the Successor Agency to the Turlock Redevelopment Agency

City Attorney

The City Attorney advises the City Council (and the various departments of the City) as to the scope of the City's authority within this constitutional and statutory framework and to ensure that the procedures set forth are followed. The City Attorney is responsible for handling or supervising the handling of all litigation initiated against the City. The City Attorney is also charged with prosecuting violations of the Turlock Municipal Code which contains ordinances regarding animal services, nuisance abatement, and various business activity licenses. Finally, uniquely to Turlock, the City Attorney functions as a working member of the Executive Team consisting of the City Manager and Department Directors, which acts as a clearinghouse for implementing City policy as directed by the Turlock City Council.

Capital Projects Program

The Capital Projects program is comprised of members within the Engineering Division in the Development Services Department. The purpose of the capital project program is to provide professional engineering design, surveying, and project management for capital improvement projects.

Building and Safety Division

The goal is to enforce the minimum standards to safeguard life or limb, health, property and public welfare. This is achieved by meeting the CBC related to the design, construction, quality of materials, use and occupancy, location, and maintenance of all buildings, structures, and certain regulated equipment.

Planning Division

The Planning Division regulates land uses, site design, and building design consistent with the adopted community policies, standards and ordinances. The Planning Division provides information on zoning, parking, signage, development standards and the Turlock General Plan. The Planning Division processes development applications, including those that are reviewed by the Planning Commission and City Council, such as new subdivisions, shopping centers, parks, and churches. The Planning Division is also the first stop for people setting up a new business in Turlock, including home-based businesses.

Planning Commission

The Turlock Planning Commission is comprised of seven regular members, appointed by the Mayor and confirmed by the City Council. Each member serves four year terms with term limits established at 12 years. The Turlock Planning Commission holds regularly scheduled meetings on the first Thursday of each month.

Municipal Services

Municipal Services manages a variety of areas that are vital in maintaining a healthy, safe, clean, and thriving community. The department consists of four divisions: Regulatory Affairs, Water Quality Control, Utility Maintenance and Utility Billing. The department is staffed with employees, who implement, deliver, operate, and maintain the City's infrastructure systems and facilities.

Fire Department

The Turlock Fire Department is a dedicated entity in the area of public safety within the City of Turlock. Responding to approximately 7,000 calls for service each year (from four Fire Stations), Turlock Fire Department is a high-performance fire department. In terms of critical infrastructure, Turlock Fire Department is the emergency service provider for a number of high-hazard occupancies, including commercial processing facilities; one hospital with an emergency department; the Stanislaus County Fair Grounds; and California State University Stanislaus, with a student population of more than 9,000 on a 228-acre campus

3.3 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 3-3 City of Turlock —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	
Capital improvements project funding	Yes	No	
Authority to levy taxes for specific purposes	Yes	No	Must be approved by voters
Fees for water, sewer, gas, or electric services, new development	Yes	No	
Incur debt through general obligation bonds	Yes	No	
Incur debt through special tax bonds	Yes	No	Requires approval by two-thirds of voters
Incur debt through private activities	Yes	No	Do not have any in place

Financial Resources	Accessible/ Eligible to Use	Has This Been Used for Mitigation in the Past?	Comments
Federal Grant Programs (Hazard Mitigation Grant Program)	Yes	No	Various Departments

3.4 Outreach and Partnerships

The City of Turlock partners with the Stanislaus County Office of Emergency Services (OES) Division. The Stanislaus County OES is responsible for the day-to-day administration of Stanislaus County's disaster preparedness, mitigation, response and recovery programs. OES develops and maintains the Stanislaus County Emergency Operations Plan and its associated annexes. OES also coordinates training, planning and exercises for first responders throughout the Stanislaus Operational Area. According to Stanislaus County OES' 2021 – Emergency Management Strategic Plan, OES listed “increase number of outreach engagements (i.e. meetings, events) as an action item to achieve one of its strategic goals, which is to build a culture of preparedness. The Stanislaus County OES will work with community partners to develop agreements for mutual aid, facilitate discussion with partners regarding preparedness planning, conduct outreach activities to engage residents, and attend emergency management trainings and conferences to stay up to date with the most current practices for disaster preparedness. The City also works in coordination with the County on the Stanislaus County MJHMP.

Moreover, the Stanislaus County OES protects the public's safety by developing and maintaining general and specific preparedness programs for the County and its nine cities. The OES educates and informs the public in the areas of emergency preparedness and fire prevention.

During the 2021-2022 planning process the following outreach efforts were identified that the City of Turlock could support related to hazard mitigation:

- Public Safety Open House Events
- City of Turlock Calendar of Special Events
- City of Turlock – Stay Informed (Email Alerts, Press Releases, RSS Feeds, Social Media)
- Social Media (Facebook, Twitter, Instagram)

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

3.5 Other Mitigation Efforts

The City partners with the City of Ceres, TID, and the SRWA by tracking the implementation of future water supply plans and projects, such as the SRWA Regional Surface Water Supply Project. This water supply project will be completed in 2023, which will diversify the drinking water supply to the cities of Ceres and Turlock (City of Ceres 2020). There are no other mitigation efforts in place in the City of Turlock.

3.6 Opportunities for Enhancement

Based on the capability assessment, the City of Turlock 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

Future opportunities for regulatory enhancement should focus on compliance with Assembly Bill 2140, including amending the City of Turlock General Plan Safety Element to incorporate the 2022-2027 Stanislaus County MJHMP and City of Turlock Annex by reference. The Turlock General Plan contains Implementing Policy, 10.3-b, Cooperate in Multi-Jurisdictional Hazard Mitigation Plan, which supports continued cooperation with the County and appropriate State and federal agencies in preparing and implementing the MJHMP.

Administrative/Technical Opportunities

Other future enhancements may include providing hazard training for staff or hazard mitigation grant funding in partnership with Stanislaus 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 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 and also supporting HMGP Sub applications and other hazard mitigation trainings.

Fiscal Opportunities

The City can update other plans, such as their CIP to 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, cooling center upgrades, and WWTP upgrades should all be emphasized in the outreach materials as they related to hazard mitigation. Additionally, given the prioritization of flooding mitigation projects, the City should 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 also expand their outreach capabilities related to the implementation of the 2022-2027 Stanislaus County MJHMP and the City of Turlock Annex. Specific enhancements may include continued public involvement through social media posts and advertisements focused on projects successes related to the Annex Mitigation Strategy, focused outreach to under-represented and special-interest groups in the City. The City can also develop outreach kits for partner organizations.

4 MITIGATION STRATEGY

4.1 Goals and Objectives

The City of Turlock 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.

4.2 Continued Compliance with the National Flood Insurance Program

The City of Turlock joined the NFIP on May 14, 1981. 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 Planning/Building Division Director. This includes ongoing activities such as enforcing local floodplain development regulations, including issuing permits for appropriate development in Special Flood Hazard Areas 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.

4.3 Mitigation Actions

The LPT for the City identified and prioritized the following new mitigation actions based on risk assessments, goals, and objectives. 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. Because the City did not participate in the 2017 LHMP the LPT did not have existing mitigation actions to review and did not provide status updates on past hazard mitigation planning efforts.

The mitigation strategy 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.



Table 4-1 City of Turlock Mitigation Action Plan

ID	Goal(s) and Lifelines	Hazard(s) Mitigated	Description/Background/Benefits	Lead Agency and Partners	Cost Estimate and Potential Funding	Priority	Timeline	Status/Implementation Notes
1	Goals 1, 2, 3, 4 and 5; Safety and Security	Dam Incidents	Develop a Public Awareness Campaign on Dam Safety – The City will organize a Social Media Campaign that will run quarterly on City of Ceres platforms to advertise and promote evacuation routes or pre-incident preparation related to dam incidents that can be done by the public.	City of Turlock Executive Team, USACE, DSOD, Merced Irrigation District, TID	\$10,000 - \$100,000; General Fund	Medium	1-3 years	New in 2022.
2	Goals 2, 4 and 5; Safety and Security	Drought	Limit lawn/landscaping watering days for residential watering to three days per week; there is an existing ongoing discussion to further mandate a reduction to allow for only two days per week.	City of Turlock Executive Team	\$10,000 - \$100,000; General Fund	High	1-3 years	New in 2022. There are complementary policies in the City's General Plan New Growth Areas and Infrastructure Element (Policies 3.3-a, 3.3-b, 3.3-c, etc.).
3	Goals 2, 4 and 5; Safety and Security	Drought	Continue the installation of water meters in all City parks to monitor water usage and reduce water usage by 20% in the future.	City of Turlock Executive Team, Municipal Services Team	\$10,000 - \$100,000; General Fund, State DWR Grants	High	1-3 years	New in 2022.
4	Goals 2, 4 and 5; Safety and Security	Drought	Terminate the watering of ornamental grass/turf for commercial and government buildings and fire stations.	City of Turlock Executive Team, Fire Department	\$10,000 - \$100,000; General Fund	High	1-3 years	New in 2022. There are complementary policies in the City's General Plan New Growth Areas and Infrastructure Element (Policies 3.3-a, 3.3-b, 3.3-c, etc.).
5	Goals 2, 3, 4 and 5; Safety and Security	Drought	Develop an educational flyer on Water Conservation to be included in water bills.	City of Turlock Executive Team, Municipal Services Team	\$10,000 - \$100,000; General Fund	Medium	1-3 years	New in 2022.
6	Goals 2, 4 and 5; Safety	Drought	Restrict water usage for high-flow drills, specifically truck, ground monitor, and master stream appliances	City's Fire Department	\$50,000 - \$100,000;	High	1-3 years	New in 2022.

	and Security				General Fund, State DWR Grants			
7	Goals 2, 4 and 5; Safety and Security	Drought	Explore the purchase of a pump pod, which is a water-recirculating platform for training and pump testing evolutions	City's Fire Department	\$50,000 - \$100,000; General Fund, State DWR Grants	High	1-3 years	New in 2022.
8	Goals 2, 4 and 5; Safety and Security	Drought	Continue working on and finishing the City's planned well and surface water projects by August/September 2023, which will offer redundancy in the City's water supply	City of Turlock Executive Team, City of Ceres, SRWA	\$50,000 - \$100,000; General Fund, State DWR Grants	High	1-3 years	New in 2022.
9	Goals 2, 4 and 5; Safety and Security	Extreme Heat	Develop an Extreme Temperatures Pilot Program that addresses Short-term Heat Adaptation Projects, such as Emergency Alerts, Resiliency Hubs, and Cooling Centers and Long-Term Adaptation Projects, such as Urban Greening (Tree plantings, shading, etc.) and Community Cohesion initiatives (Connections with Community-Based Organizations [CBOs], local residents, and volunteers to check on neighbors during extreme heat events) to building capacity within the City related to extreme heat.	City of Turlock Executive Team, Fire Department, Catholic Charities of the Diocese of Stockton Environmental Justice Program (potential CBO partner)	>\$100,000; General Fund	Medium	3-5 years	New in 2022.



5 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.

5.1 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 Engineering Division in the Development Services Department may utilize the hazard information when implementing the City's capital projects summarized under the City's Five-Year Capital Improvement Program and the Planning and Building and Safety Departments (Planning Division and Building and Safety 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 Safety Element of their General Plan, as recommended by AB 2140.

As noted in Section 6 of the Base Plan, the City of Turlock 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.

5.2 Monitoring, Evaluation and Updating the Plan

The City will follow the procedures to monitor, review, and update this plan in accordance with Stanislaus 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 Police Chief, Planning/Building Division Director and Battalion Chief will be responsible for representing the City in the County LPT, 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.