
SYSTEM DESCRIPTION

The Urban Water Management Planning Act (UWMPA) requires that the Urban Water Management Plan (UWMP) include a description of the water purveyor's service area and various aspects of the area served including climate, population, and other demographic factors.

Law

10631. A plan shall be adopted in accordance with this chapter and shall do all of the following:

10631. (a). Describe the service area of the supplier, including current and projected population, climate, and other demographic factors affecting the supplier's water management planning. The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available.

2.1 SERVICE AREA PHYSICAL DESCRIPTION

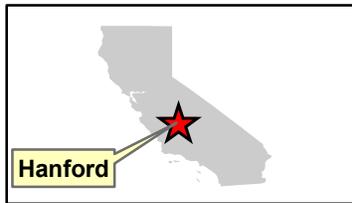
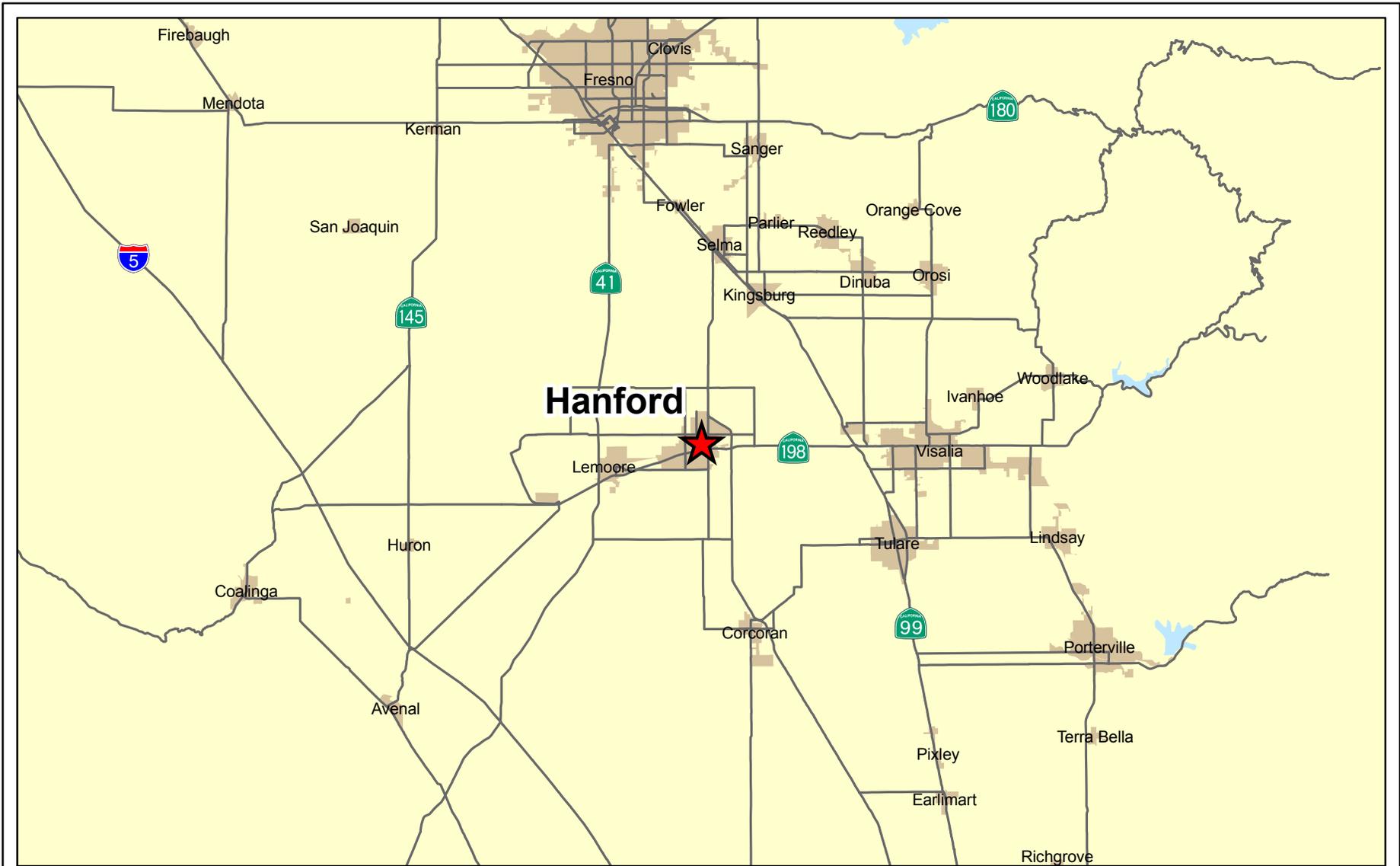
The City of Hanford (City) is located in Kings County, approximately 30 miles southwest of the City of Fresno and 195 miles north of the City of Los Angeles (Figure 2.1). The City's nearest neighbor, Lemoore, is approximately 10 miles west. State Highway 198 runs east and west through the City and State Highway 43 runs north and south along the easterly boundary of the City.

The City was originally settled by the Southern Pacific Railroad and was incorporated in 1891. Established as the county seat for Kings County, Hanford has a diverse population that is largely comprised of people with white (64.1 percent), Hispanic (38.7 percent), and black (5.0 percent) ethnic compositions¹.

The City has a long history of agricultural land uses. Large agricultural corporations as well as many small private farms surround the City. These farms produce a variety of crops as well as dairy products from several large dairies in the area.

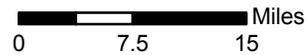
The General Plan, adopted in June 2002, identifies the current boundaries of the Ultimate Growth Boundary (UGB) (Figure 2.2). This UGB is recognized as the Ultimate City Growth Boundary over the life of the City's current General Plan. This UWMP assumes that the UGB describes the future water system service area.

¹ www.ci.hanford.ca.us



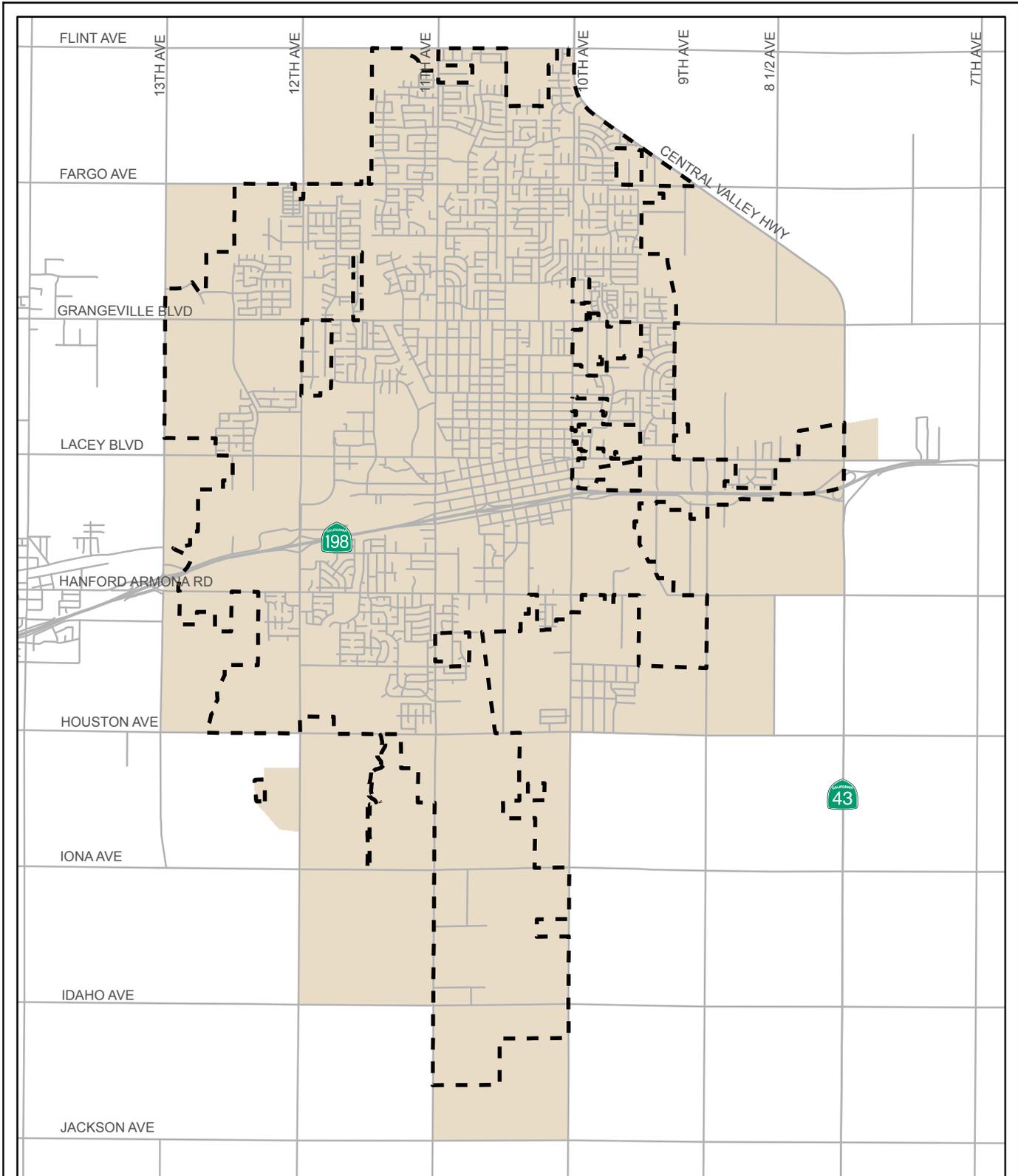
Legend

-  City of Hanford
-  Urban Areas
-  Hydrography
-  State of California
-  Major Roads



**Figure 2.1
Location Map**
Urban Water Management Plan
City of Hanford





Legend

-  Streets
-  City Limits
-  Ultimate Growth Boundary

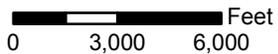


Figure 2.2
Ultimate Growth Boundary
 Urban Water Management Plan
 City of Hanford



In accordance with the general plan, the City's UGB comprises approximately 29.5 square miles (18,899 acres). There are approximately 6,284 acres of developed land in the City's metropolitan area including the industrial park area. The total developed area in the City, excluding the industrial park, is 5,758 acres.

The predominant residential unit in Hanford is the single-family home with 82 percent of these homes in the low-density category, while the medium and high-density account for 16 percent and 2 percent, respectively. Table 2.1 summarizes the General Plan land use categories, as obtained from the 1996 Water System Master Plan (WSMP).

Table 2.1 Land Use Categories 2010 Urban Water Management Plan City of Hanford				
Land Use	1996 WSMP⁽¹⁾		Department of Public Works⁽²⁾	
	Area (acres)	Percentage of Total	Area (acres)	Percentage of Total
Residential				
Low Density	2,594	51	3,555	57
Medium Density	664	13	698	11
High Density	55	1	70	1
Commercial	828	16	920	15
Industrial Within City	58	1	60	1
Industrial Park	496	10	526	8
Public				
Schools	229	5	275	4
Parks	145	3	180	3
Total	5,069	100	6,284	100
Notes:				
(1) Source: 1996 City of Hanford Water System Master Plan.				
(2) Source: City of Hanford Department of Public Works, February 2006				

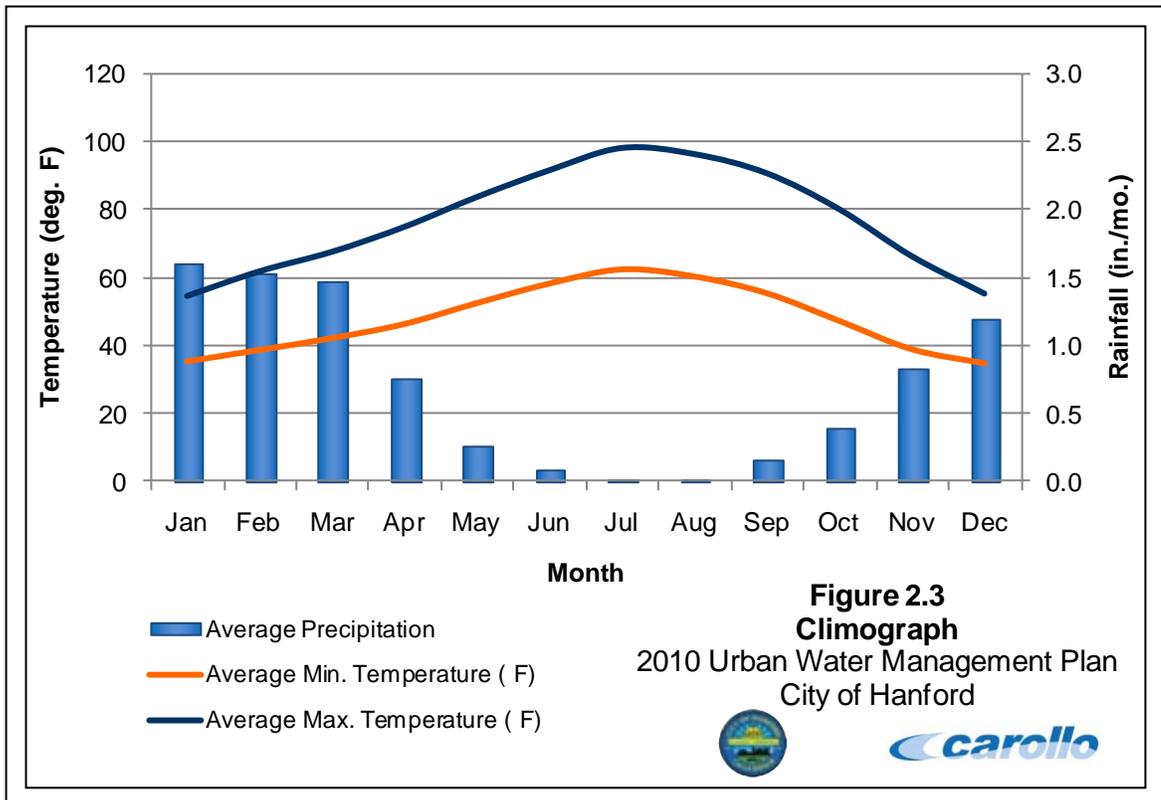
Hanford is governed by the council-manager form of government. The City Council sets policy for the city and appoints a city manager to oversee day-to-day operations. The Hanford City Council is comprised of five members serving staggered four year terms selected directly by the electorate. Each council member represents one of five districts within the City. City Council members appoint a mayor and vice-mayor each year from amongst themselves.

2.1.1 Service Area Climate

The climate in the City can be classified as Mediterranean with average rainfall rates of about 8.3-inches per year. Most of the annual precipitation occurs during the period from November through April. Table 2.2 summarizes monthly average reference evapotranspiration (ET_o) rates, rainfall and temperature. The average monthly precipitation and average monthly temperatures are also shown on Figure 2.3.

Table 2.2 Climate 2010 Urban Water Management Plan City of Hanford					
Month	Average ET_o⁽¹⁾ (inches)	Average Rainfall⁽²⁾ (inches)	Average Min. Temperature⁽²⁾ (°F)	Average Max. Temperature⁽²⁾ (°F)	Average Temperature⁽²⁾ (°F)
January	0.91	1.6	35.2	54.7	45.0
February	1.92	1.53	38.6	61.9	50.3
March	3.93	1.47	42.1	67.6	54.9
April	6.06	0.76	46.3	74.9	60.6
May	7.77	0.26	52.5	83.6	68.1
June	8.6	0.08	58.3	91.4	74.9
July	8.77	0.01	62.5	97.9	80.2
August	7.73	0.01	60.4	96.1	78.3
September	5.86	0.16	55.4	90.5	73.0
October	4.14	0.39	47.2	80	63.6
November	2.08	0.83	38.8	66.3	52.6
December	0.96	1.2	34.6	55.4	45.0
Annual	58.73	8.31	47.7	76.7	62.2
Notes:					
(1) Source: California Irrigation Management Information System (CIMIS), Station No. 15: Stratford (period of record 1982-2010).					
(2) Source: Western Regional Climate Center, Station No. 043747: Hanford (period of record 1899-2010)					

The average annual temperature is 62.2 degrees Fahrenheit (°F), although it is not unusual for summer readings to reach well over 100° F. According to Western Regional Climate Center (WRCC), the monthly average mean temperature in July is 80.2 °F, with an average maximum of 97.9 °F and an average minimum of 62.5 °F. Extreme winter lows can reach into the teens with the first freeze usually coming in December, while the last comes usually in March.



During the winter, the relative humidity averages 91 percent, but 100 percent is not uncommon where persistent Tule fog can be present. Average winter daytime relative humidities are 68 percent. In the summer and fall, humidity reaches 61 percent at night and 21 percent during the day. Winds are prevailing out of the northwest and average six miles per hour.

2.2 SERVICE AREA POPULATION

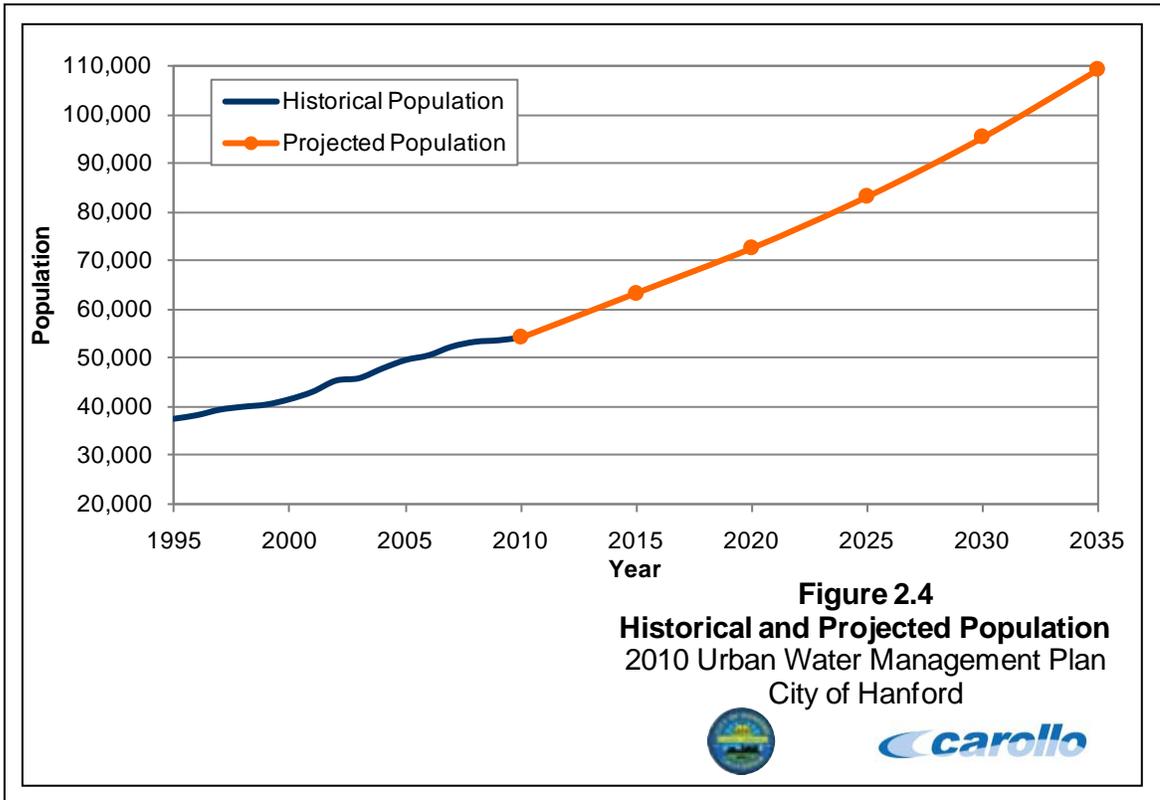
Hanford is a growing community with a population of approximately 53,266, as of January 1, 2010 according to the California Department of Finance (DOF), and represents approximately 34 percent of Kings County. Note that the population served by the City's water system includes areas outside the city limits. The City estimates the population served by the water distribution system annually using the California DOF estimates as its basis. The population served by the water system in 2010 is estimated to be 54,200.

Population projections, shown in Table 2.3 and Figure 2.4, are used to forecast water requirements for the City. Historical population statistics shown on Figure 2.4 are from California DOF estimates. The 2002 City of Hanford General Plan (2002 General Plan), projects population through 2025. Population projections for 2030 and 2035 were derived using the growth rate estimated in the 2002 General Plan.

Table 2.3 Population - Current and Projected (Guidebook Table 2) 2010 Urban Water Management Plan City of Hanford							
Service Area Population ⁽²⁾	Years						Data Source
	2010	2015	2020	2025	2030	2035	
	54,200	63,395	72,633	83,239	95,416	109,395	Source ^{(3),(4)}

Notes:

1. "Guidebook Table X" refers to a specific table in the "Guidebook to Assist Urban Water Suppliers to Prepare of 2010 Urban Water Management Plan" by DWR.
2. Service area population is defined as the population served by the distribution system.
3. 2010 population data source: California DOF.
4. Projected population data source: City of Hanford General Plan Update, Adopted June 2002.



According to 2000 Census figures, the City’s Median Household Income (MHI) in year 2000 was \$37,582. The State defines a disadvantaged community as a community with an annual MHI that is less than 80 percent of the statewide MHI. Using U.S. Census 2000 data, 80 percent of the statewide annual MHI is \$37,994. Therefore, the City can be described as a “disadvantaged community.”

2.3 EXPANSION PROJECTS

The California Water Code requires public water systems, as part of the water supply assessment process required by the California Environmental Quality Act (CEQA), to determine whether the water demand associated with a major development (or “project”) is included in the agency’s most recently adopted UWMP. Inclusion of any proposed development projects in the UWMP simplifies the water supply assessment process, because the UWMP can be referenced directly in the water supply assessment. Therefore, it benefits the City to incorporate any major developments in the UWMP that are considered “projects” by the California Water Code, as defined below.

Law

10910. (a) Any city or county that determines that a project, as defined in section 10912, is subject to the California Environmental Quality...

10912. For the purpose of this part, the following terms have the following meanings:

10912 (a) “Project” means any of the following:

- (1) A proposed residential development of more than 500 dwelling units.*
- (2) A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.*
- (3) A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.*
- (4) A proposed hotel or motel, or both, having more than 500 rooms.*
- (5) A proposed industrial, manufacturing or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.*
- (6) A mixed-use project that includes one or more of the projects specified in this subdivision.*
- (7) A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.*

The City is not currently considering any large expansion projects that would need to be accounted for in this UWMP.

The City has previously prepared water supply assessments for certain development areas, which were based on the City’s previous 2000 and 2005 UWMPs. These projects include the Hanford Square Development, the Lone Oak (Live Oak) Development, and the Villagio Development.