

City of Fresno

Metropolitan Water Resources Management Plan Update

Addendum

January 2014

WEST YOST



ASSOCIATES



CITY OF FRESNO METROPOLITAN WATER RESOURCES MANAGEMENT PLAN UPDATE ADDENDUM

Prepared for
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Overview of Metro Plan Update..... 1
Contents of January 2014 Metro Plan Update Addendum..... 1
General Plan Update 2
Population Projections..... 2
Water Demand Projections..... 3
Residential Water Metering Program 5
Expanded Groundwater Banking and Aquifer Storage and Recovery (ASR) Feasibility Study..... 5
Recycled Water Master Plan 5

List of Figures

Figure 4-3. City of Fresno Future Supply vs. Demand
(assuming buildout of the General Plan in 2035) (with SBx7-7 demands)
[From City of Fresno 2010 Urban Water Management Plan]..... 4

OVERVIEW OF METRO PLAN UPDATE

The City of Fresno Metropolitan Water Resources Management Plan (Metro Plan) Update consists of a series of three reports prepared for the City of Fresno by West Yost Associates:

Phase	Report Title	Date	Description
Phase 1	Baseline System Characterization	December 2007	Phase 1 provided a baseline characterization of the City of Fresno (City) water system and its ability to meet current and projected future water demands.
Phase 2	Development and Evaluation of Future Water Supply Plan	January 2011	Phase 2 involved the development of a recommended integrated future water supply plan to address the groundwater basin issues identified in Phase 1, diversify the City's water supply portfolio and enhance overall water supply reliability and sustainability.
Phase 3	Implementation Plan	January 2011	Phase 3 described the recommended implementation plan for the City's recommended water supply plan.

Phase 4 of the Metro Plan Update is the preparation of an Environmental Impact Report for the Metro Plan Update. Preparation of the Metro Plan Update EIR is on-going and completion is anticipated by summer 2014.

CONTENTS OF JANUARY 2014 METRO PLAN UPDATE ADDENDUM

This Metro Plan Update Addendum provides information on the City's recent and on-going water system planning activities and accomplishments which have occurred since the completion of the Metro Plan Update. These include updates on the following:

- General Plan Update
- Population Projections
- Water Demand Projections
- Residential Water Metering Program
- Expanded Groundwater Banking and Aquifer Storage and Recovery Feasibility Study
- Recycled Water Master Plan

As indicated in the Metro Plan Update documents, keeping the Metro Plan current and updated is critical to ensuring that the City is able to meet or exceed the goals and objectives of the Metro Plan. It is recommended that the City's Metro Plan be updated every five to ten years.

Components of the Metro Plan are also described in the City's Urban Water Management Plan (UWMP), which is required to be updated every five years. The City's most recent UWMP, the 2010 UWMP¹, was adopted by the Fresno City Council in November 2012. The next required UWMP update is due in December 2015.

GENERAL PLAN UPDATE

The overall objective of the City's Metro Plan Update is to provide sustainable and reliable water supplies to meet the demands of existing and future customers through buildout of the City's adopted General Plan. The adopted General Plan currently in effect is the 2025 General Plan². The project area for the Metro Plan Update includes the existing City limits and the City of Fresno Sphere of Influence (SOI) designated by the City's 2025 General Plan.

The City is currently in the process of updating the General Plan with a future planning horizon through the year 2035. The boundaries designated by the proposed 2035 General Plan Update are consistent with those adopted in the 2025 General Plan; therefore, the proposed project area considered in the Metro Plan Update would not change with the City's adoption of the 2035 General Plan.

POPULATION PROJECTIONS

The Metro Plan Update was based on an assumed annual population growth rate within the City's water service area of 1.9 percent based on projections made by the Fresno Council of Governments (Fresno COG). This assumption resulted in a projected water service area population of approximately 692,202 by 2025 (see Phase 1 Report Chapter 3).

The Fresno 2025 General Plan had somewhat different projections, and assumed a higher starting population in 2000 for the Community Plan Area. According to the 2025 General Plan, the population of the City's Community Plan Area would increase to 790,955 by 2025. However, with the recent economic downturn, growth in the City has slowed and population projections have been revised. The Fresno COG is now projecting a City population of 786,000 by 2035³, which reflects a 10-year shift (delay) in the buildout of the City's General Plan SOI.

While the City's population projections have changed, the required components of the Metro Plan Update have not. However, the revised population projections may change the timing for the implementation of required components. The City's 2010 UWMP has already incorporated the revised population projections prepared by Fresno COG. Subsequent revisions to the City's population projections will be considered in the City's future updates to its Metro Plan and UWMP, and required timing for the implementation of required Metro Plan components will be evaluated and adjusted as necessary to meet the City's future needs.

¹ City of Fresno 2010 Urban Water Management Plan, prepared by West Yost Associates, November 2012.

² 2025 Fresno General Plan, prepared by the City of Fresno Planning and Development Department, February 2002.

³ Based on Fresno Council of Governments 2035 projection for Fresno County (1,290,000) with 61 percent of that population being in the City of Fresno (reference: Fresno General Plan and Development Code Update, Alternatives Report, prepared by City of Fresno, et.al., March 2012).

WATER DEMAND PROJECTIONS

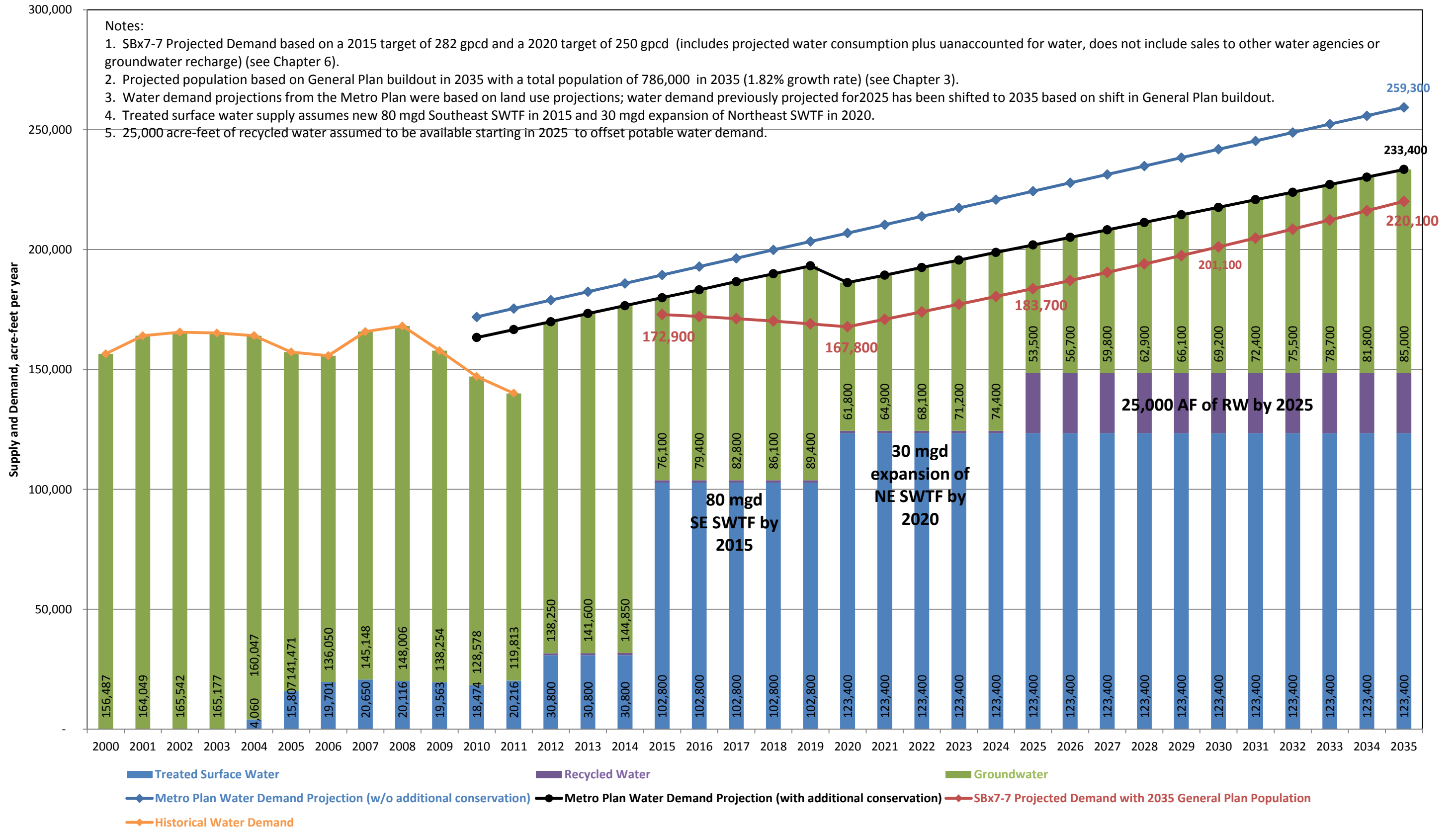
Water demand projections in the Metro Plan Update were based on a combination of land use-based projections and per capita-based projections. Current and future water conservation measures, including the installation of single-family residential water meters, were assumed to reduce future water demands by 10 percent. Based on these assumptions, the City's projected 2025 water demand was estimated to be 234,400 acre-feet per year (afa) (see Phase 2 Report, Table 3-3 and Phase 3 Report, Table 2-1).

In November 2009, as part of a Comprehensive Water Package enacted in the State of California, the Water Conservation Act of 2009 (SBx7-7) was enacted. Per SBx7-7, each urban water retailer (including the City) was required to adopt per capita water use targets for 2015 and 2020, and incorporate those targets into future demand projections to be included in the 2010 UWMPs, and subsequent UWMPs. The City adopted per capita water use targets in March 2012 and incorporated those targets into its 2010 UWMP dated November 2012. The City's adopted targets are 282 gallons per capita per day (gpcd) by 2015 and 250 gpcd by 2020.

The City's recent and on-going water conservation efforts and residential meter installation program have resulted in significant reductions in per capita water use. The City's per capita water use in 2012 was 241 gpcd, down 27 percent from a high of 329 gpcd in 2001. Compliance with the adopted SBx7-7 per capita water use targets will require on-going water conservation and vigilance by the City's water customers.

Based on the 10-year shift in the buildout of the City's General Plan SOI (discussed above), and the City's compliance with the requirements of SBx7-7, revised water demand projections were included in the City's 2010 UMWP. Figure 4-3 from the City's 2010 UWMP shows the revised water demand projections and is attached for reference. As shown in Figure 4-3, the City's projected 2035 water demand is 220,100 afa and the recommended timing for the major Metro Plan Update components (new 80 mgd Southeast SWTF, 30 mgd expansion of the existing Northeast SWTF by 2020, etc.) remains as recommended in the Metro Plan Update due to the urgent need for these new facilities to balance the City's groundwater operations by 2025.

Figure 4-3. City of Fresno Future Supply vs. Demand
 (assuming buildout of the General Plan in 2035) (with SBx7-7 demands)



RESIDENTIAL WATER METERING PROGRAM

When the Metro Plan Update was initiated, most of the City's single-family residential customers were not metered and were billed based on a monthly flat rate basis which was not related to actual water consumption. In compliance with the United States Bureau of Reclamation (USBR) requirement for the City to be 100 percent metered by March 2013, in December 2012 the City completed a comprehensive Residential Water Metering Program which included the installation of approximately 112,000 new water meters. With the completion of the meter installations and conversion of all single-family residential accounts from a flat rate billing structure to a volumetric billing structure, all of the City's water customers are now billed based on actual water consumption.

EXPANDED GROUNDWATER BANKING AND AQUIFER STORAGE AND RECOVERY (ASR) FEASIBILITY STUDY

One of the recommendations of the Metro Plan Update was that an Expanded Groundwater Banking and Aquifer Storage and Recovery (ASR) Feasibility Study be conducted to evaluate the potential use of more extensive groundwater recharge in the City (see Phase 2 Report Chapter 5). A study was initiated in April 2012 to investigate the potential applicability of incorporating ASR and groundwater banking technologies into the City's water management portfolio by evaluating appropriate regulatory requirements, existing hydrogeologic conditions, and groundwater recharge operations. Findings and recommendations from the study will be considered in the City's future water supply planning efforts.

RECYCLED WATER MASTER PLAN

One of the recommendations of the Metro Plan Update was that a Recycled Water Master Plan be prepared to evaluate the potential for future recycled water use within the City (see Phase 2 Report Chapter 7). The Recycled Water Master Plan⁴ was completed in December 2010 and evaluated the site-specific factors in the City and the potential project alternatives for implementing recycled water projects in the City of Fresno. An Environmental Impact Report (EIR) for the Recycled Water Master Plan⁵ was completed in June 2011. The Fresno City Council adopted the Recycled Water Master Plan and certified the Final EIR on April 11, 2013. Implementation of the Recycled Water Master Plan is on-going.

⁴ City of Fresno Recycled Water Master Plan, prepared by Carollo Engineers, December 2010.

⁵ Final Environmental Impact Report for the City of Fresno Recycled Water Master Plan (State Clearing House No. 2010051015), prepared by ESA, June 2011.