



2010

Urban Water Management Plan

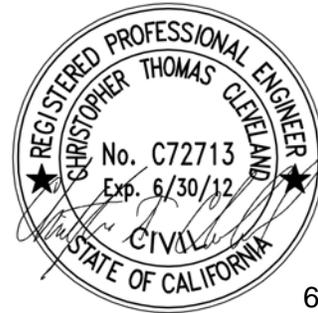
Public Review Document • June 2011




Engineers...Working Wonders With Water®



6/8/2011



6/8/2011

City of Yuba City

**2010 URBAN WATER
MANAGEMENT PLAN**

PUBLIC REVIEW DOCUMENT
June 2011



2010 URBAN WATER MANAGEMENT PLAN

TABLE OF CONTENTS

	<u>Page No.</u>
Chapter 1 PLAN PREPARATION	1-1
1.1 PURPOSE	1-1
1.2 BACKGROUND	1-1
1.2.1 Urban Water Management Planning Act	1-1
1.2.2 Previous Urban Water Management Plan	1-2
1.2.3 Resource Maximization/Import Minimization	1-2
1.3 PLAN PREPARATION	1-3
1.3.1 Coordination with Appropriate Agencies.....	1-3
1.3.2 Plan Adoption, Submittal, and Implementation.....	1-5
1.4 ABBREVIATIONS AND DEFINITIONS	1-5
Chapter 2 SYSTEM DESCRIPTION.....	2-1
2.1 SERVICE AREA PHYSICAL DESCRIPTION.....	2-1
2.1.1 Description of Transmission, Treatment, and Distribution Facilities	2-3
2.1.2 Climate.....	2-3
2.2 SERVICE AREA POPULATION.....	2-4
2.2.1 Other Demographic Factors	2-5
2.3 PLANNED DEVELOPMENT	2-6
Chapter 3 SYSTEM DEMANDS	3-1
3.1 BASELINES AND TARGETS	3-1
3.1.1 Baseline	3-1
3.1.2 Targets	3-4
3.2 SUMMARY OF BASELINES AND TARGETS.....	3-5
3.3 WATER DEMANDS	3-6
3.3.1 Sales to Other Agencies.....	3-12
3.3.2 Other Water Demands.....	3-12
3.3.3 Total Water Demands.....	3-12
3.3.4 Lower Income Household Water Use Projections	3-13
3.4 WATER DEMAND PROJECTIONS	3-14
3.5 WATER USE REDUCTION PLAN	3-14
Chapter 4 SYSTEM SUPPLIES.....	4-1
4.1 WATER SOURCES.....	4-1
4.1.1 Water Supply Facilities	4-1
4.1.2 Water Rights.....	4-2
4.1.3 Current and Projected Water Supplies	4-4
4.2 GROUNDWATER	4-5

4.3	TRANSFER OPPORTUNITIES.....	4-6
4.4	DESALINATED WATER OPPORTUNITIES	4-6
4.5	RECYCLED WATER OPPORTUNITIES.....	4-7
4.5.1	Wastewater Collection, Treatment Systems, and Disposal	4-7
4.5.2	Current and Projected Recycled Water Use	4-8
4.5.3	Potential Uses of Recycled Water	4-9
4.5.4	Encouraging Recycled Water Use.....	4-9
4.5.5	Recycled Water Use Optimization Plan.....	4-9
4.6	FUTURE WATER PROJECTS.....	4-9
Chapter 5	WATER SUPPLY RELIABILITY AND WATER SHORTAGE CONTINGENCY PLAN	5-1
5.1	WATER SUPPLY RELIABILITY	5-1
5.2	WATER QUALITY	5-3
5.3	WATER SHORTAGE CONTINGENCY PLANNING	5-4
5.3.1	Emergency/Disaster Response Plan	5-4
5.3.2	Water Shortage Contingency Resolution and Ordinance	5-6
5.3.3	Water Shortage Conservation Plan	5-7
5.3.4	Residential Users and Unmetered Commercial/Industrial Uses.....	5-8
5.3.5	Mechanism for Determining Actual Reductions in Water Use	5-8
5.3.6	Analysis of Revenue Impacts of Reduced Sales during Shortages.....	5-10
5.4	DROUGHT PLANNING	5-11
5.4.1	Minimum Supply Available for the Next Three Years	5-14
5.4.2	Supplies and Demands for Normal Water Year.....	5-15
5.4.3	Supplies and Demands for a Single-Dry Water Year	5-15
5.4.4	Supply and Demand for Multiple-Dry Water Year Periods	5-16
5.4.5	Drought Planning Summary.....	5-18
Chapter 6	DEMAND MANAGEMENT MEASURES.....	6-1
6.1	INTRODUCTION	6-1
6.2	DMM 1: WATER SURVEY PROGRAMS FOR SINGLE FAMILY AND MULTI-FAMILY RESIDENTIAL CUSTOMERS	6-3
6.3	DMM 2: RESIDENTIAL PLUMBING RETROFIT.....	6-4
6.4	DMM 3: SYSTEM WATER AUDITS, LEAK DETECTION AND REPAIR	6-6
6.5	DMM 4: METERING WITH COMMODITY RATES FOR ALL NEW CONNECTIONS AND RETROFIT OF EXISTING CONNECTIONS.....	6-7
6.6	DMM 5: LARGE LANDSCAPE CONSERVATION PROGRAMS AND INCENTIVES	6-8
6.7	DMM 6: HIGH-EFFICIENCY WASHING MACHINE REBATE PROGRAMS	6-9
6.8	DMM 7: PUBLIC INFORMATION PROGRAMS.....	6-9
6.9	DMM 8: SCHOOL EDUCATION PROGRAMS.....	6-10
6.10	DMM 9: CONSERVATION PROGRAMS FOR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL ACCOUNTS	6-11
6.11	DMM 10: WHOLESALE AGENCY PROGRAMS	6-13
6.12	DMM 11: CONSERVATION PRICING	6-13
6.13	DMM 12: WATER CONSERVATION COORDINATOR	6-14
6.14	DMM 13: WATER WASTE PROHIBITIONS	6-14
6.15	DMM 14: RESIDENTIAL ULTRA-LOW FLUSH TOILET REPLACEMENT PROGRAMS	6-15

Chapter 7	CLIMATE CHANGE	7-1
Chapter 8	COMPLETED UWMP CHECKLIST	8-1

APPENDICES

- APPENDIX A – Outreach Documents
- APPENDIX B – City Adoption Resolution (To be included in Final UWMP)
- APPENDIX C – Water Conservation Implementation Plan
- APPENDIX D – Water Rights Permits, Contracts, Agreements
- APPENDIX E – Water Shortage Ordinance, Resolution, and Emergency Plan

LIST OF TABLES

Table 1	Coordination with Appropriate Agencies (Guidebook Table 1)	1-4
Table 2	Climate Characteristics	2-4
Table 3	Population - Current and Projected (Guidebook Table 2)	2-5
Table 4	Base Period Ranges (Guidebook Table 13)	3-2
Table 5	Base Daily Per Capita Water Use - 10-Year Range (Guidebook Table 14)..	3-3
Table 6	Base Daily Per Capita Water Use - 5-Year Range (Guidebook Table 15)....	3-4
Table 7	Baseline and Targets Summary.....	3-6
Table 8	Water Deliveries – Actual 2005 (Guidebook Table 3)	3-7
Table 9	Water Deliveries – Actual 2010 (Guidebook Table 4)	3-8
Table 10	Water Deliveries – Projected 2015 (Guidebook Table 5).....	3-8
Table 11	Water Deliveries – Projected 2020 (Guidebook Table 6).....	3-10
Table 12	Water Deliveries – Projected 2025, 2030, 2035 (Guidebook Table 7).....	3-11
Table 13	Sales to Other Water Agencies (Guidebook Table 9)	3-12
Table 14	Additional Water Uses and Losses (Guidebook Table 10)	3-12
Table 15	Total Water Use (Guidebook Table 11)	3-13
Table 16	City Surface Water Allotments	4-3
Table 17	Water Supplies - Current and Projected (Guidebook Table 16).....	4-5
Table 18	Recycled Water - Wastewater Collection and Treatment (Guidebook Table 21)	4-8
Table 19	Recycled Water - Non-Recycled Wastewater Disposal (Guidebook Table 22)	4-8
Table 20	Recycled Water - 2005 UWMP Use Projection Compared to 2010 Actual (Guidebook Table 24)	4-9
Table 21	Future Water Supply Projects (Guidebook Table 26)	4-10
Table 22	Factors Resulting in Inconsistency of Supply (Guidebook Table 29).....	5-3
Table 23	Water Shortage Contingency - Rationing Stages to Address Water Supply Shortages (Guidebook Table 35).....	5-7
Table 24	Water Shortage Contingency - Mandatory Prohibitions (Guidebook Table 36)	5-9
Table 25	Water Shortage Contingency - Consumption Reduction Methods (Guidebook Table 37)	5-9
Table 26	Water Shortage Contingency – Penalties and Charges (Guidebook Table 38)	5-10

Table 27	Basis of Water Year Data (Guidebook Table 27).....	5-12
Table 28	Supply Reliability - Historical Conditions (Guidebook Table 28).....	5-12
Table 29	Supply Reliability - Current Water Sources (Guidebook Table 31).....	5-13
Table 30	Supply and Demand Comparison - Average Year (Guidebook Table 32) ..	5-15
Table 31	Supply and Demand Comparison - Single-Dry Year (Guidebook Table 33)	5-16
Table 32	Supply and Demand Comparison - Multiple-Dry Year (Guidebook Table 34)	5-17
Table 33	Demand Management Measure Overview	6-2

LIST OF FIGURES

Figure 1	City Service Area	2-2
----------	-------------------------	-----

PLAN PREPARATION**1.1 PURPOSE**

The California Water Code requires urban water suppliers within the state to prepare and adopt Urban Water Management Plans (UWMPs) for submission to the California Department of Water Resources (DWR). The UWMPs, which must be filed every five years, must satisfy the requirements of the Urban Water Management Planning Act (UWMPA) of 1983, including amendments that have been made to the Act and other applicable regulations. The UWMPA requires urban water suppliers servicing 3,000 or more connections, or supplying more than 3,000 acre-feet (AF) of water annually, to prepare a UWMP.

The purpose of the UWMP is to maintain efficient use of urban water supplies, continue to promote conservation programs and policies, ensure that sufficient water supplies are available for future beneficial use, and provide a mechanism for response during water drought conditions. This report, which was prepared in compliance with the California Water Code, and as set forth in the 2010 guidelines and format established by the DWR, constitutes the City of Yuba City (City) 2010 UWMP.

1.2 BACKGROUND**1.2.1 Urban Water Management Planning Act**

In 1983, State Assembly Bill 797 modified the California Water Code Division 6 by creating the UWMPA. Several amendments to the original UWMPA, which were introduced since 1983, have increased the data requirements and planning elements to be included in the UWMPs.

Initial amendments to the UWMPA required that total projected water use be compared to water supply sources over the next 20 years, in 5-year increments. Recent DWR guidelines also suggest projecting through a 25-year planning horizon to maintain a 20-year timeframe until the next UWMP update has been completed.

Other amendments require that UWMPs include provisions for recycled water use, demand management measures (DMMs), and a water shortage contingency plan. The UWMPA requires inclusion of a water shortage contingency plan, which meets the specifications, set forth therein. Recycled water was added in the reporting requirements for water usage and figures prominently in the requirements for evaluation of alternative water supplies, when future projections predict the need for additional water supplies. Each urban water purveyor must coordinate the preparation of the water shortage contingency plan with other urban water purveyors in the area, to the extent practicable. Water suppliers must also describe their water DMMs that are being implemented or are scheduled for implementation.

In addition to the UWMPA and its amendments, there are several other regulations that are related to the content of the UWMP. In summary, the key relevant regulations are:

- Assembly Bill 1420: Requires implementation of DMMs/Best Management Practices (BMPs) and meeting the 20-by-2020 targets to qualify for water management grants or loans.
- Assembly Bill 1465: Requires water suppliers to describe opportunities related to recycled water use and stormwater recapture to offset potable water use.
- Amendments SB 610 (Costa, 2001) and AB 901 (Daucher, 2001) (effective beginning January 1, 2002): Require counties and cities to consider information relating to the availability of water to supply new large developments by mandating the preparation of further water supply planning (Daucher) and Water Supply Assessments (Costa).
- Senate Bill 1087: Requires water suppliers to report single-family residential (SFR) and multi-family residential (MFR) projected water use for lower income areas separately.
- Amendment SB 318 (Alpert, 2004): Requires the UWMP to describe the opportunities for development of desalinated water, including but not limited to, ocean water, brackish water, and groundwater, as long-term supply.
- AB 105 (Wiggins, 2004): Requires urban water suppliers to submit their UWMPs to the California State Library.
- Senate Bill x7-7: Requires development and use of new methodologies for reporting population growth estimates, base per capita use, and water conservation. This water bill also extended the 2010 UWMP adoption deadline for retail agencies to July 1, 2011. An agency can choose from four methods to establish their interim (2015) and year 2020 water conservation targets.

1.2.2 Previous Urban Water Management Plan

Pursuant to the UWMPA, the City previously prepared an UWMP in 2000 and 2005. The 2005 UWMP was approved and adopted on March 7, 2006. Following adoption, the 2005 UWMP was submitted to and formally approved by DWR. This 2010 UWMP report serves as an update to the 2005 UWMP.

1.2.3 Resource Maximization/Import Minimization

The City recognizes the importance of maintaining a high quality reliable water supply. Although water is a renewable resource, it is limited. A long-term reliable supply of water is essential to protect the local and state economy. The main focus for the City is to provide high quality water, maximize the efficient use of water, and promote conservation.

1.3 PLAN PREPARATION

This 2010 UWMP was prepared in compliance with the UWMPA (California Water Code §10610 et seq.) and the Water Conservation Bill of 2009 (SBX7-7). The 2010 UWMP was prepared by Carollo Engineers. Contact information for the City and Carollo Engineers is included in the Contact Sheet provided at the beginning of this document.

This section includes specific information on how the UWMP was prepared, coordinated with other agencies and the public, adopted, and implemented.

The information contained herein is based on the 2006 Water Master Plan Update, City data, data included in available City planning documents, and review and update of the City's 2005 UWMP.

The City's Water System Master Plan Update (2006) outlined the projected water demands within the existing city limits, buildout population, the City's sphere of influence, and the former Hillcrest Water Company groundwater regions acquired by the City in May 2001. Additionally, the Master Plan Update identified the needed water system improvements to the existing infrastructure, expansion necessary to accommodate anticipated growth projected by the City's General Plan, and methods to maximize available resources and minimize the need to import water.

1.3.1 Coordination with Appropriate Agencies

The UWMPA requires that the UWMP identify the water agency's coordination with appropriate nearby agencies; see excerpt below.

10620 (d) (2) Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.

10621 (b). Every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days prior to the public hearing on the plan required by Section 10642, notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. The urban water supplier may consult with, and obtain comments from, any city or county that receives notice pursuant to this subdivision.

10635 (b). The urban water supplier shall provide that portion of its urban water management plan prepared pursuant to this article to any city or county within which it provides water supplies no later than 60 days after the submission of its urban water management plan.

The City is an independent water supplier with four separate agreements that provide raw water supply for the City. The City does not purchase treated water from any other agencies; additionally, all water obtained through the four separate agreements is treated and delivered by the City within its sphere of influence.

The City coordinated its efforts with relevant agencies and parties to ensure that the data and issues discussed in the plan are presented accurately. Table 1 summarizes how the UWMP preparation was coordinated. Appendix A contains copies of outreach documents.

Table 1 Coordination with Appropriate Agencies (Guidebook Table 1) 2010 Urban Water Management Plan City of Yuba City							
Coordinating Agencies	Participated in Developing the Plan	Commented on the Draft	Attended Public Meetings	Was Contacted for Assistance	Was Sent a Copy of the Draft Plan	Was Sent a Notice of Intention to Adopt	Not Involved/ No Information
Community Development			✓	✓			
General Public		✓	✓		✓		
Fire Department			✓				
Police Department			✓				
Sutter County			✓		✓	✓	
Parks & Recreation			✓				
State Water Resources Control Board							✓
Notes: "Guidebook Table X" refers to a specific table in the "Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan" by DWR.							

The City also provided formal written notification to Sutter County that the City's UWMP was being updated for 2010. In accordance with the UWMPA, this notification was provided at least 60 days prior to the public meeting of the plan. Copies of the final UWMP will be provided to Sutter County no later than 30 days after its submission to DWR.

1.3.1.1 Public Participation

The UWMPA requires that the UWMP show the water agency solicited public participation; see excerpt below.

10642. Each urban water supplier shall encourage the active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan. Prior to adopting a plan, the urban water supplier shall make the plan available for public inspection and shall hold a public hearing thereon. Prior to the hearing, notice of the time and place of hearing shall be published ... After the hearing, the plan shall be adopted as prepared or as modified after the hearing.

The City educates its customers about water conservation issues through bill inserts, participation at public events, and tours of the water treatment plant. A formal public meeting was held for review and comment of the Draft 2010 UWMP before the City Council's approval.

On June 10, 2011 and August 5, 2011, the City placed a notice in the local newspaper and at City Hall stating that its UWMP was being updated and that, a public meeting would be conducted to address comments and concerns from members of the community. The public meeting will be broadcast on local access cable television. The notice stated that a public review period would be scheduled from June 21, 2011 to July 29, 2011. A copy of this notification is included in Appendix A. The draft 2010 UWMP was made available for public inspection at City Hall 1201 Civic Center Boulevard and the City website.

The City held a public meeting on June 21, 2011 at the City Hall, 1201 Civic Center Boulevard. The meeting provided an opportunity for the City's customers, residents, and employees to learn and ask questions about the current and future water supply of the City. Outreach documentation is contained in Appendix A.

1.3.2 Plan Adoption, Submittal, and Implementation

The City prepared this 2010 UWMP during the spring and summer of 2011. The plan was updated after the public meeting and adopted by its City Council on, August 16, 2011 (see City Resolution in Appendix B). The City will submit the UWMP to DWR by August 19, 2011. Within 30 days of submitting the UWMP to DWR, the adopted UWMP will be available for public review on the City website, during normal business hours at the location specified for the viewing of the draft 2010 UWMP, and submitted to the California State Library and Sutter County.

1.3.2.1 Implementation

Review of the City's 2005 UWMP indicated that the implementation plan and schedule of action items by the City through 2010 were accomplished. Updated implementation plans and schedules for on-going and/or future actions are provided in this 2010 UWMP.

1.4 ABBREVIATIONS AND DEFINITIONS

To conserve space and improve readability, the following abbreviations are used in this report. The abbreviations are spelled out in the text the first time the phrase or title is used in each chapter and subsequently identified by abbreviation only.

AF	acre-feet
AFY	acre-feet per year
ASR	Aquifer Storage Recovery

BMPs	Best Management Practices
City	City of Yuba City
County	Sutter County
DOF	Department of Finance
DMMs	Demand Management Measures
DWR	California Department of Water Resources
ETo	Evapotranspiration
°F	Degrees Fahrenheit
gpcd	gallons per capita per day
HWC	Hillcrest Water Company
mgd	million gallons per day
MGY	million gallons per year
NYWD	North Yuba Water District
RHNP	Regional Housing Needs Plan
SACOG	Sacramento Area Council of Governments
SFR	Single-Family Residential
SWRCB	State Water Resources Control Board
SWP	State Water Project
MFR	Multi-Family Residential
UWMP	Urban Water Management Plan
UWMPA	Urban Water Management Planning Act
WTP	Water Treatment Plant
WTF	Wastewater Treatment Facility
YSRRWMP	Yuba-Sutter Regional Recycled Water Master Plan

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; see excerpt below.

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

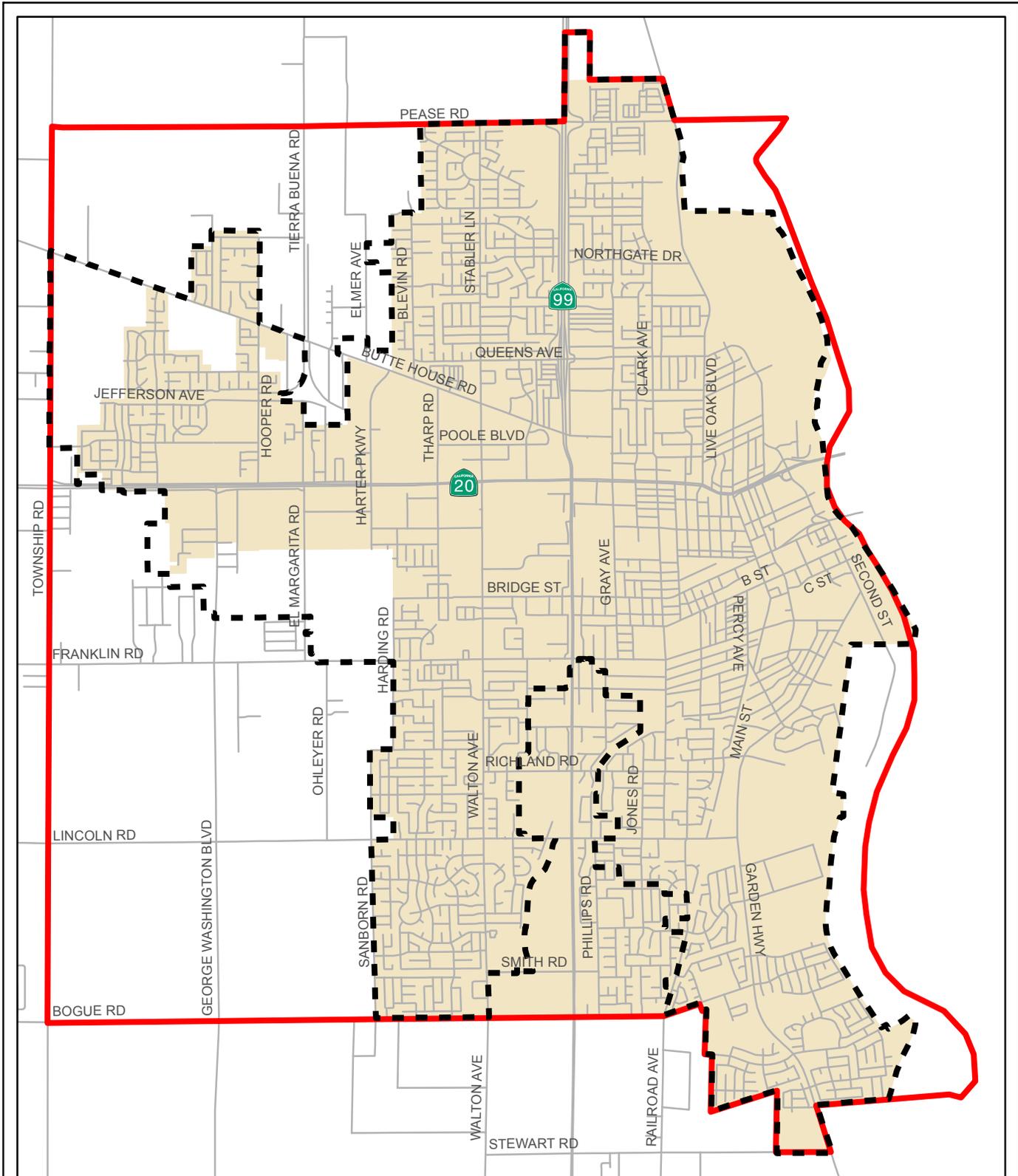
2.1 SERVICE AREA PHYSICAL DESCRIPTION

The City of Yuba City (City) is located within the northern Sacramento Valley. It is situated in eastern Sutter County on the western bank of the Feather River. Primarily undeveloped agricultural land exists to the north, west, and south of the City. The Sutter Buttes are located to the northwest of the City.

The City sphere of influence borders are the Feather River to the east, Pease Road to the north, Township Road to the west, and Bogue Road to the south. The sphere of influence is the probable ultimate physical boundary and service area of the City determined by the Local Agency Formation Commission of Sutter County. Water service is provided to residents within the City limits and residents (approximately 6 percent of the City's customers) outside of the City limits but within the sphere of influence. One-hundred percent of City customers are within the sphere of influence. The City's service area boundary and City limits are shown in Figure 1.

The City is a typical mid-sized valley agricultural community that has experienced moderate growth. The economy is primarily based on agriculture and support businesses. The largest employers include fruit processors, government, retail outlets, and service providers. The City has served as the County Seat since 1856. The City was incorporated in 1908.

Much of the City's land use pattern can be traced to its evolution as a primary service center within a large agricultural area. Much of the residential development in the City is low-density single-family housing and much of the commercial development is retail-related.



- Legend**
- Streets
 - City Limits
 - Sphere of Influence
 - Water Service Area

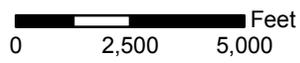


Figure 1
City Service Area
 Urban Water Management Plan
 City of Yuba City



2.1.1 Description of Transmission, Treatment, and Distribution Facilities

In February 1910, the municipal water district was formed and in 1922, a sanitation department was formed and created a sewer system. Prior to 1969, the City water supply was local groundwater. The water was hard and contained high levels of sulfides, iron, and manganese. In 1965, the citizens passed a bond issue, 91 percent in favor, to construct a new surface water treatment plant (WTP). The WTP was placed on line in 1969.

The water supply source for the City is surface water from the Feather River. The conventional WTP consists of coagulation, flocculation, sedimentation, and high-rate filtration. The permitted capacity of the conventional WTP is 24 million gallons per day (mgd). In 2007, the WTP was expanded with membrane treatment technology. The membrane treatment system consists of coagulation, flocculation, and membrane filtration units. The permitted capacity of the membrane WTP is 12 mgd. Water produced from the conventional and the membrane treatment plants are blended for chlorine disinfection. Operating the conventional and membrane treatment, the total WTP capacity is 36 mgd. The quality and reliability of treated water is protected by the WTP instrumentation, alarms, stand-by equipment, and back-up power generation. The City also has access to a 2.9 mgd back-up standby well located at the WTP.

In 2001, the City acquired the Hillcrest Water Company (HWC). HWC provided groundwater service to four regions, within the City's sphere of influence. The HWC systems included approximately 4,600 service connections and 13 active groundwater wells. All of the HWC wells are now inactive and all of the HWC customers have been connected to surface water (completed October 2010).

2.1.2 Climate

Summers are typically hot and dry and winters are mild with moderate rainfall. Rainfall occurs generally from late October to early May, averaging 17.0 inches a year, but varying widely from year to year. Monthly precipitation has been as high as 10.83 inches (January 2004) and as low as 0.0 inches. Evapotranspiration (ETo) values, which serve as indicators of how much water is required to maintain healthy agriculture and landscaping, range from 1.05 inches during January to 7.89 inches in July. Temperature, rainfall, and ETo averages for the City are presented in Table 2.

Table 2 Climate Characteristics 2010 Urban Water Management Plan City of Yuba City					
Month	Standard Monthly Average ETo⁽¹⁾ (inches)	Monthly Average Rainfall (inches)	Monthly Average Temp (°F)		
			Maximum	Minimum	Average
January	1.05	3.73	54.51	36.41	45.13
February	1.66	3.10	59.96	38.83	49.04
March	3.51	1.91	66.58	40.12	53.15
April	4.78	1.39	71.02	42.35	56.68
May	6.71	0.64	80.98	50.36	65.68
June	7.65	0.03	87.56	56.25	71.64
July	7.89	0.00	91.76	58.34	74.20
August	6.74	0.02	90.23	56.58	72.13
September	4.31	0.09	87.03	52.47	68.23
October	3.35	0.90	76.99	45.45	60.05
November	1.65	1.73	63.99	39.03	50.73
December	0.98	3.50	55.19	36.58	45.54

Notes:
1. Source: California Irrigation Management Information System (CIMIS) Station 30. Represents monthly average from January 1999 to December 2010.

2.2 SERVICE AREA POPULATION

This section summarizes historical, current, and projected population trends in the City.

Incorporated in 1908, Yuba City’s population began to grow more rapidly after World War II, as a result of returning veterans, improved access from highway construction, and the constraints placed on development in its sister city, Marysville, which is surrounded by flood-control levees. The City’s growth has continued to be strong.

Population projections are essential to the planning process and form the basis for most planning decisions, yet projecting future growth is far from an exact science given the complex set of variables that can affect the rate of growth. Typically, projections are developed by taking past patterns and combining them with assumptions regarding the future to obtain an estimate of future growth rates. These projections serve to provide the City insight on the type and quantity of future growth as well as guidance regarding future planning activities.

The City’s 2004 General Plan presented the two scenarios below for estimating population growth in the City:

- Sacramento Area Council of Governments – growth rate of 2.4 percent with a population of 105,730 in 2025
- Census – growth rate of 3.4 percent with a population of 131,557 in 2025

The projected populations shown in Table 3 are based on a 3.0 percent annual population growth. The 2010 population is from the Department of Finance (DOF). Buildout is assumed to occur in 2035 with a population of 135,000. It is assumed that no demand increases will occur beyond 2035.

Table 3 Population - Current and Projected (Guidebook Table 2) 2010 Urban Water Management Plan City of Yuba City							
Service Area Population ⁽¹⁾	Years						Data Source
	2010	2015	2020	2025	2030	2035	
	65,327	75,784	87,855	101,847	118,069	135,000	2010 DOF and growth projections ⁽²⁾
<p>Notes: "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.</p> <p>1. Service area population is defined as the population within the City service area and sphere of influence.</p> <p>2. Population projections for 2015 through 2030 were estimated using a 3.0 percent annual growth rate. Buildout to occur in 2035.</p>							

The estimated population at buildout in 2035 includes:

- Growth within the City water service area
- Growth within the sphere of influence that is outside of current City limits
- Planned developments discussed in Section 2.3

2.2.1 Other Demographic Factors

This section summarizes and analyzes past and current demographic information from the City's 2004 General Plan. Analyzing demographic data can yield important information about possible shifts in demand for city services.

With substantial growth occurring in the past 20 years, the City is now the economic hub of the surrounding agricultural area, providing services for both city and regional residents. It is also part of the Sacramento metropolitan area economy and is influenced by trends in this larger area. It is anticipated that the greatest growth in employment in the future will be in the retail, office, medical, and manufacturing sectors. Much of the development in the City is anticipated to be residential low-density single-family housing and retail-related commercial development.

2.3 PLANNED DEVELOPMENT

The UWMPA requires that the UWMP identify the major developments within the agency's service area that would require water supply planning; see excerpt below.

10910. (a) Any city or county that determines that a project, as defined in section 10912, is subject to the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) under Section 21080 of the Public Resources Code shall comply with this part.

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.*

City staff did not identify any projects in the 2030 General Plan (April 2004) that met the criteria listed in California Water Code Section 10912. The Draft Lincoln East Specific Plan (March 2009) includes planning for several separate residential areas totaling 5,307 dwelling units for the entire plan area. The estimated population associated with the Lincoln East Specific Plan as well as two additional planning areas have been included in the UWMP projected population estimate at buildout in 2035.

SYSTEM DEMANDS

The Urban Water Management Planning Act (UWMPA) requires that the Urban Water Management Plan (UWMP) identify the quantity of water supplied to the agency's customers including a breakdown by user classification; see excerpt below.

10631 (e) (1) Quantify, to the extent records are available, past and current water use, and projected water use (over the same five-year increments described in subdivision (a)), identifying the uses among water use sectors including, but not necessarily limited to, all of the following uses:

(A) Single-family residential; (B) Multifamily; (C) Commercial; (D) Industrial; (E) Institutional and governmental; (F) Landscape; (G) Sales to other agencies; (H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof; and (I) Agricultural.

(2) The water use projections shall be in the same 5-year increments to 20 years or as far as data is available.

This section describes the baseline (base daily per capita daily) water use, the interim and urban water use targets, water system demands, water demand projections, and the water use reduction plan.

3.1 BASELINES AND TARGETS

The UWMPA requires that the UWMP identify the baseline water demand, urban water use target, and interim urban water use target for the City of Yuba City (City); see excerpt below.

10608.20 (e) (1) An urban retail water supplier shall include in its urban water management plan...due in 2010 the baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.

The base daily per capita use is the first step in determining the various urban water use targets over the 20-year planning horizon. The current per capita use sets the “baseline” on which the urban and interim water use targets are determined. These targets are necessary to judge compliance with the 2020 use reductions set forth in the Water Conservation Bill of 2009.

3.1.1 Baseline

The first step in developing the baseline water use for the City is determining the applicable range and years for which the baseline average will be calculated. The UWMPA stipulates an agency may use either a 10- or 15-year average to determine their baseline. If 20 percent of total water deliveries in 2008 were from recycled water, then the agency can use

a 15-year average baseline. Since the City had no recycled water deliveries in 2008, a 10-year average was used for baseline determination. In addition to the 10-year baseline, a 5-year baseline is also calculated, which will be used to establish the minimum criteria for the City's use reduction targets. A summary of the 2008 total and recycled water deliveries, 10-year baseline range, and 5-year baseline range is included in Table 4.

Table 4 Base Period Ranges (Guidebook Table 13) 2010 Urban Water Management Plan City of Yuba City			
Base	Parameter	Value	Units
10-Year Base Period	2008 total water deliveries ⁽¹⁾	19,089	AFY
	2008 total volume of delivered recycled water	0	AFY
	2008 recycled water as a percent of total deliveries	0	Percent
	Number of years in base period	10	Years
	Year beginning base period range	2001	
	Year ending base period range	2010	
5-Year Base Period	Number of years in base period	5	Years
	Year beginning base period range	2006	
	Year ending base period range	2010	
<p><u>Notes:</u> "Guidebook Table X" refers to a specific table in the "Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan" by DWR.</p> <p>1. Source: 2008 Department of Water Resources Public Water System Statistics.</p>			

The data used to calculate the 10-year baseline is included in Table 5. The UWMPA requires a continuous range, with the end of the range ending between December 31, 2004 and December 31, 2010, be used for baseline determination. The daily system gross water use shown in Tables 5 and 6 includes industrial usage. If a City has process water data over the 10-year baseline period that meets UWMPA exclusion requirements (15 percent of gross water use), the City can exclude process water from the gross water use. The City does not currently have industrial process water data for the 10-year baseline. The City should revisit the 10-year baseline calculation in the 2015 UWMP to determine if process water can be excluded.

Table 5 Base Daily Per Capita Water Use - 10-Year Range (Guidebook Table 14) 2010 Urban Water Management Plan City of Yuba City				
Base Period Year		Distribution System Population⁽¹⁾	Daily System Gross Water Use⁽²⁾ (mgd)	Annual Daily Per Capita Water Use (gpcd)
Sequence	Calendar Year			
1	2001	45,590	13.1	286
2	2002	46,831	10.7	304
3	2003	48,481	15.0	293
4	2004	50,955	16.3	306
5	2005	57,913	14.9	268
6	2006	60,083	15.5	276
7	2007	61,590	16.5	286
8	2008	62,616	17.0	260
9	2009	63,647	16.7	243
10	2010	65,372	15.9	226
Base Daily Per Capita Water Use				275
<p><u>Notes:</u> "Guidebook Table X" refers to a specific table in the "Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan" by DWR.</p> <p>1. Source: 2001 through 2010 Department of Finance.</p> <p>2. Based on calendar year. Source: Department of Water Resources Public Water System Statistics.</p>				

The data used to calculate the 5-year baseline is included in Table 6. The UWMPA requires a continuous range, with the end of the range ending between December 31, 2007 and December 31, 2010, be used for baseline determination.

Table 6 Base Daily Per Capita Water Use - 5-Year Range (Guidebook Table 15) 2010 Urban Water Management Plan City of Yuba City				
Base Period Year		Distribution System Population⁽¹⁾	Daily System Gross Water Use⁽²⁾ (mgd)	Annual Daily Per Capita Water Use (gpcd)
Sequence	Calendar Year			
1	2006	60,083	15.5	276
2	2007	61,590	16.5	286
3	2008	62,616	17.0	260
4	2009	63,647	16.7	243
5	2010	65,372	15.9	226
Base Daily Per Capita Water Use				258
<p>Notes: "Guidebook Table X" refers to a specific table in the "Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan" by DWR.</p> <p>1. Source: 2006 through 2010 Department of Finance.</p> <p>2. Based on calendar year. Source: Department of Water Resources Public Water System Statistics.</p>				

3.1.2 Targets

The UWMPA requires urban water suppliers to determine the interim and urban water use targets for 2015 and 2020, respectively. Four target methods have been developed, and identify the specific steps water suppliers shall follow to establish these targets. A brief description of each method, as well as the water use calculated using each methodology is included below.

3.1.2.1 Method 1 - 80 Percent of Base Daily Per Capita Water Use

Method 1 requires an urban water supplier to determine the base daily per capita use. In order to determine the target using Method 1, 80 percent of the base daily per capita use (10-year base period) is calculated. Based on the daily per capita use of 275 gallons per capita per day (gpcd) determined previously (Table 5), the target use for Method 1 is 220 gpcd.

3.1.2.2 Method 2 - Performance Standards

Method 2 requires water suppliers to use baseline commercial, industrial, institutional, indoor residential, and landscaped area water use to calculate a water use target. Based on the nature of the data required to determine a target using Method 2, it is not feasible for the City to use this methodology.

3.1.2.3 Method 3 - 95 Percent of Hydrologic Region Target

Method 3 requires water suppliers to use the hydrologic region target to calculate a water use target for 2020. A map showing the California hydrologic regions and 2020 conservation goals is included in the final Guidebook to Assist Urban Water Suppliers to prepare a 2010 UWMP. In order to determine the target using Method 3, 95 percent of the region-specific conservation goal is calculated. Based on a target of 176 gpcd for the Sacramento River region, the Method 3 target is 167 gpcd.

3.1.2.4 Method 4 - Savings by Water Sector

Method 4 identifies water savings obtained through identified practices and subtracts them from the base daily per capita water use value identified for the water supplier. The water savings identified that can be used to reduce the base daily per capita water use value include:

- Indoor residential use savings
- Metered savings
- Commercial, industrial, and institutional (CII) savings
- Landscape and water loss savings

To calculate the CII savings, a retail water supplier must have data for the entire baseline period used in the base daily capita water use calculation. The City does not have metered water use data on CII connections over the 10-year base period; therefore, it is not feasible for the City to use this methodology. The City should revisit the 10-year baseline and Method 4 target calculations in the 2015 UWMP as data will be available over the 10-year baseline period.

3.1.2.5 Minimum Water Use Reduction Requirement

The final step in determining the applicability of the water use target for the City is to confirm that the water use targets meet the minimum reduction requirements as defined by the Department of Water Resources (DWR). To confirm the target, the 5-year average baseline previously determined (Table 6) is used. In order to meet the minimum criteria, the chosen use 2020 target must fall below 95 percent of the 5-year baseline, which for the City is 245 gpcd.

3.2 SUMMARY OF BASELINES AND TARGETS

Based on the water use targets calculated using the developed methodologies, the City's water use target for 2020 is 220 gpcd. Based on the 10-year baseline of 275 gpcd, the 2015 interim water use target is 248 gpcd. This target was determined using Method 1, which corresponds to 80 percent of the 10-year baseline. According to the DWR guidelines,

this target must be modified since it is higher than the target confirmation criteria of 245 gpcd. The 2015 interim water use target is 245 gpcd.

A summary of the various baselines, use target determined based on various methodologies and, the final use target and interim target are summarized in Table 7.

Table 7 Baseline and Targets Summary 2010 Urban Water Management Plan City of Yuba City								
Baselines (gpcd)		Target Determination Methods (gpcd)				Target Confirmation⁽⁵⁾ (gpcd)	2020 Target⁽⁶⁾ (gpcd)	2015 Interim Target⁽⁷⁾ (gpcd)
10-Year	5-Year	1⁽¹⁾	2⁽²⁾	3⁽³⁾	4⁽⁴⁾			
275	258	220	NA	167	NA	245	220	245

Notes:

1. Method 1 – 80 percent of the 10-year base daily per capita water use.
2. Method 2 – Insufficient landscaped area data is available to determine an Urban Water Use Target.
3. Method 3 – 95 percent of the Regional Target.
4. Method 4 – Based on water savings. Commercial, institutional, and industrial data over 10-year baseline not available.
5. Minimum criterion for the Urban Water Use Target is defined as 95 percent of the 5-year base daily per capita water use.
6. Urban Water Use Target determined using Method 1.
7. Interim Urban Water Use Target defined as the average of the 10-year base per capita water use and Urban Water Use Target. The interim target was modified to the minimum criterion target.

3.3 WATER DEMANDS

The City operates a municipal water system for residential, commercial, and industrial needs within its sphere of influence. Approximately six percent of connections serviced by the City are outside the City limits, but within the sphere of influence. The City completed installation of meters on all connections in October 2010.

Due to the lack of significant customer metering, historical usage records do not exist prior to 2000. Additionally, future account projections are based on the estimated annual population growth of three percent and buildout in 2035. The past and current water system demands by category and the projected water use over the planning horizon of the 2010 UWMP are provided in Tables 8 to 12. The projections include system water losses, low income water demands, and water conservation to meet water use target compliance where applicable.

In 2010, the City supplied 5,814 million gallons of water (DWR Public Water System Statistics), or 17,842 acre-feet per year (AFY), which is equivalent to 15.9 million gallons per day (mgd) of water serving a population of approximately 65,372 (Department of Finance). Tables 8 and 9 list the annual water demands and number of customer accounts by customer type for 2005 and 2010.

Table 8 Water Deliveries - Actual 2005 (Guidebook Table 3) 2010 Urban Water Management Plan City of Yuba City					
	2005				
	Metered		Not Metered		Total
Water Use Sectors	# of accounts	Deliveries AFY	# of accounts	Deliveries AFY	Deliveries AFY
Single Family Residential	11,390	6,336	2,974	---	---
Multi-Family Residential	967	1,814	61	---	---
Commercial/ Institutional	1,072	1,708	4	---	---
Industrial	5	1,578	1	---	---
Landscape Irrigation	203	571	0	0	---
Agriculture	0	0	0	0	---
Other	423	---	0	0	---
Total	14,060	12,007	3,040	4,671	16,678
<p>Notes: "Guidebook Table X" refers to a specific table in the "Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan" by DWR. ---Data not provided on DWR PWS Statistics sheets. Source: 2005 Department of Water Resources Public Water System Statistics.</p>					

Table 9 Water Deliveries - Actual 2010 (Guidebook Table 4) 2010 Urban Water Management Plan City of Yuba City					
	2010				
	Metered		Not Metered		Total
Water Use Sectors	# of accounts	Deliveries AFY	# of accounts	Deliveries AFY	Deliveries AFY
Single Family Residential	15,311	7,911	2	---	---
Multi-Family Residential	1,060	1,681	0	0	0
Commercial/ Institutional	1,272	1,668	1	---	---
Industrial	5	1,938	0	0	0
Landscape Irrigation	380	840	0	0	0
Agriculture	0	0	0	0	0
Other	14	32	0	0	0
Total	18,042	14,070	3	3,772	17,842

Notes: "Guidebook Table X" refers to a specific table in the "Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan" by DWR.
---Data not provided on DWR PWS Statistics sheets.
Source: 2010 Department of Water Resources Public Water System Statistics.

The water use per connection type was determined by calculating the average water usage per connection type on the DWR Public Water System Statistics sheets for 2001-2010 (Single-family residential connection 0.19 million gallons per year (MGY), Multi-family residential connection 0.70 MGY, Commercial/Institutional connection 1.33 MGY, Industrial connection 103 MGY, and Landscape irrigation connection 0.94 MGY).

The future water use projections for 2015 through 2035 (Tables 10 through 12) are based on a reduction in water use per customer sector due to water conservation to meet gpcd water use targets. The City will avoid placing a disproportionate water conservation burden on any specific customer sector.

Table 10 Water Deliveries - Projected 2015 (Guidebook Table 5) 2010 Urban Water Management Plan City of Yuba City					
	2015⁽¹⁾				
	Metered		Not Metered		Total
Water Use Sectors	# of accounts	Deliveries AFY	# of accounts	Deliveries AFY	Deliveries AFY
Single Family Residential	17,235	9,753	0	0	9,753
Multi-Family Residential	1,193	2,538	0	0	2,538
Commercial/Institutional	1,433	5,745	0	0	5,745
Industrial	6	1,755	0	0	1,755
Landscape Irrigation	428	1,221	0	0	1,221
Agriculture	0	0	0	0	0
Other	0	0	0	0	0
Total	20,294	21,012	0	0	21,012

Notes: "Guidebook Table X" refers to a specific table in the "Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan" by DWR.

1. Account projections based on growth rate of 3.0 percent. The future water use projections to meet water use target goals include 1.4 percent water conservation on water use per connection type.

Table 11 Water Deliveries - Projected 2020 (Guidebook Table 6) 2010 Urban Water Management Plan City of Yuba City					
	2020⁽¹⁾				
	Metered		Not Metered		Total
Water Use Sectors	# of accounts	Deliveries AFY	# of accounts	Deliveries AFY	Deliveries AFY
Single Family Residential	19,398	10,075	0	0	10,075
Multi-Family Residential	1,343	2,621	0	0	2,621
Commercial/ Institutional	1,613	5,901	0	0	5,901
Industrial	6	1,801	0	0	1,801
Landscape Irrigation	481	1,255	0	0	1,255
Agriculture	0	0	0	0	0
Other	0	0	0	0	0
Total	22,841	21,653	0	0	21,653

Notes: "Guidebook Table X" refers to a specific table in the "Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan" by DWR.

1. Account projections based on growth rate of 3.0 percent. The future water use projections to meet water use target goals include 9.5 percent water conservation for single-family and multi-family connections and 10 percent water conservation for commercial, industrial, and landscape irrigation connections.

Table 12 Water Deliveries - Projected 2025, 2030, 2035 (Guidebook Table 7) 2010 Urban Water Management Plan City of Yuba City						
	2025^(1,2)		2030^(1,3)		2035^(1,4,5)	
	Metered		Metered		Metered	
Water Use Sectors	# of accounts	Deliveries AFY	# of accounts	Deliveries AFY	# of accounts	Deliveries AFY
Single Family Residential	21,833	11,653	24,573	13,537	27,657	15,476
Multi-Family Residential	1,511	3,032	1,701	3,523	1,914	4,026
Commercial/ Institutional	1,815	6,828	2,043	7,890	2,299	9,069
Industrial	7	2,087	8	2,412	9	2,771
Landscape Irrigation	542	1,452	610	1,679	686	1,927
Agriculture	0	0	0	0	0	0
Other	0	0	0	0	0	0
Total	25,708	25,052	28,934	29,041	32,566	33,269

Notes: "Guidebook Table X" refers to a specific table in the "Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan" by DWR.

1. Account projections based on growth rate of 3.0 percent.
2. The 2025 future water use projections to meet water use target goals include 7 percent water conservation for single-family and multi-family connections and 7.5 percent water conservation for commercial, industrial, and landscape irrigation connections.
3. The 2030 future water use projections to meet water use target goals include 4 percent water conservation for single-family and multi-family connections and 5 percent water conservation for commercial, industrial, and landscape irrigation connections.
4. The 2035 future water use projections to meet water use target goals include 2.5 percent water conservation for single-family and multi-family connections and 3 percent water conservation for commercial, industrial, and landscape irrigation connections.
5. Buildout assumed in 2035.

3.3.1 Sales to Other Agencies

To date, the City has made no sales of treated water to other agencies, nor does the City anticipate any in the future (Table 13).

Table 13 Sales to Other Water Agencies (Guidebook Table 9) 2010 Urban Water Management Plan City of Yuba City							
Agency	Water Use						
	2005	2010	2015	2020	2025	2030	2035
None	0	0	0	0	0	0	0
Total, AFY	0	0	0	0	0	0	0
Notes: "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.							

3.3.2 Other Water Demands

Additional water uses and losses in the City's service area are presented in Table 14 below. Additional water losses are accounted for in Tables 8 through 12.

Table 14 Additional Water Uses and Losses (Guidebook Table 10) 2010 Urban Water Management Plan City of Yuba City							
Water Use	2005	2010	2015	2020	2025	2030	2035
Saline Barriers	0	0	0	0	0	0	0
Groundwater Recharge	0	0	0	0	0	0	0
Conjunctive Use	0	0	0	0	0	0	0
Raw Water	0	0	0	0	0	0	0
Recycled Water	0	0	0	0	0	0	0
System Losses	0	0	0	0	0	0	0
Total, AFY	0						
Notes: "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. Any water accounted for in Guidebook Tables 3 through 7 are not included in this table. System losses are accounted for in Guidebook Tables 3 through 7.							

3.3.3 Total Water Demands

The City's total average annual demands, based on the figures presented in Tables 8-14, are presented in Table 15.

Table 15 Total Water Use (Guidebook Table 11) 2010 Urban Water Management Plan City of Yuba City							
Water Use⁽¹⁾	2005	2010	2015	2020	2025	2030	2035
Total water deliveries, AFY	16,678	17,842	21,012	21,653	25,052	29,041	33,269
Sales to other water agencies, AFY	0	0	0	0	0	0	0
Additional water uses and losses, AFY	0	0	0	0	0	0	0
Total, AFY	16,678	17,842	21,012	21,653	25,052	29,041	33,269
Notes: "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.							
1. Water use from 2015 through 2035 reflects water conservation to meet water use targets per gpdc. Without water conservation total water use will be higher.							

3.3.4 Lower Income Household Water Use Projections

The most recent Sacramento Area Council of Governments (SACOG) Regional Housing Needs Plan (RHNP) does not provide low-income projections beyond 2013. The RHNP allocated 718 low-income housing units for 2006-2013. The SACOG is in the process of updating the RHNP, which will include projections from 2013 to 2021.

The City's 2008 Housing Element Update contains implementation programs, ordinances, and targets for affordable housing for low-income households. Key items in the housing element regarding water service and low-income housing include:

- The City will grant priority for water and sewer service allocations to proposed developments that include units affordable to lower income households (Senate Bill 1087).
- The City will provide incentives and programs to ensure the provision of low-income housing units to meet community needs.
- Continue coordination between the Planning Department, Redevelopment Agency, and Housing Authority staff in efforts to fund and develop affordable housing.

The 2008 Housing Element Update assumed a 2.34 percent increase per year in projected lower income households from 2007 to 2013. In 2013, it was projected that 10,577 households would be lower income. The number of households projected in the Housing Element were not separated into single family and multi-family homes. Information on the estimated low-income housing beyond 2015 was not included in the 2008 Housing Element Update.

Specific low-income water use projections will be included in the 2015 UWMP update after the City has completed the update to the General Plan and Housing Element and the

SACOG has published the update to the RHNP. Additionally, the City will work on determining the estimated water demand per low-income housing unit for the 2015 UWMP update. The water demands for low-income units are included in the future water demand projects for single-family and multi-family homes listed in Table 15.

3.4 WATER DEMAND PROJECTIONS

The City is an independent water supplier and does not purchase treated water from any other agencies nor does it sell treated water to other agencies.

3.5 WATER USE REDUCTION PLAN

The 2015 (245 gpcd) and 2020 (220 gpcd) conservation targets calculated for the City do not represent a significant effort to reach. In 2009 and 2010, the City's gpcd was 243 and 226, respectively, which are close to the future water use targets.

As will be discussed in Chapter 6, the savings associated with the demand management measures (DMMs), which the City is currently implementing will result in a reduction of water use. In addition, the City has developed a Water Conservation Implementation Plan (Appendix C) and further efforts will be made to reach the water conservation targets. The City will avoid placing a disproportionate burden on any specific customer sector.

It is anticipated that when the 2015 UWMP is prepared the City will have enough industrial process water use data to allow recalculation of the gross water use and urban water use targets. This, along with increased water conservation measures, should allow the City to meet the water use target goals.

SYSTEM SUPPLIES

This section describes the sources of water available to the City of Yuba City (City).

4.1 WATER SOURCES

The Urban Water Management Planning Act (UWMPA) requires that the Urban Water Management Plan (UWMP) include a description of the agency's existing and future water supply sources for the next 25 years. The description of water supplies must include detailed information on the groundwater basin such as water rights, determination if the basin is in overdraft, adjudication decree, and other information from the groundwater management plan; see excerpt below.

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

10631 (b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a) [to 20 years or as far as data is available]. If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information shall be included in the plan:

10631 (b) (1) A copy of any groundwater management plan adopted by the urban water supplier...

10631 (b) (2) A description of any groundwater basin or basins from which the urban water supplier pumps groundwater. For those basins for which a court or board has adjudicated the rights to pump groundwater...For basins that have not been adjudicated, information as to whether the department has identified the basin or basins as overdrafted...

10631 (b) (3) A detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic records.

10631 (b) (4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the urban water supplier. The description and analysis shall be based on information that is reasonable available, including, but not limited to, historic use records.

4.1.1 Water Supply Facilities

Prior to 1969, the City's water supply was local groundwater. The water was hard and contained high levels of sulfides, iron, and manganese. In 1965, the citizens passed a bond issue, 91 percent in favor, to construct a new surface water treatment plant (WTP). The WTP was placed online in 1969.

The water supply source for the City is surface water from the Feather River. The conventional WTP consists of coagulation, flocculation, sedimentation, and high-rate

filtration. The permitted capacity of the conventional WTP is 24 million gallons per day (mgd). In 2007, the WTP was expanded with membrane treatment technology. The membrane treatment system consists of coagulation, flocculation, and membrane filtration units. The permitted capacity of the membrane WTP is 12 mgd. Water produced from the conventional and the membrane treatment plants are blended for chlorine disinfection. Operating the conventional and membrane treatment, the total WTP capacity is 36 mgd. The quality and reliability of treated water is protected by the WTP instrumentation, alarms, stand-by equipment, and back-up power generation.

In 2001, the City acquired Hillcrest Water Company (HWC). HWC provided groundwater service to four regions, within the City's sphere of influence. The HWC system included approximately 4,600 service connections and 13 active groundwater wells. All of the HWC wells are now inactive and all of the HWC customers have been connected to the City's surface water system (completed October 2010).

The City's existing surface water sources include two appropriative water rights, State Water Resources Control Board (SWRCB) Permit 14045 (Application Number 0A18025) and 18558 (Application Number A025751) and two surface water supply contracts. Existing water sources are as follows:

- SWRCB Permit 14045 - Feather River
- SWRCB Permit 18558 - Feather River
- Contract - North Yuba Water District - Feather River
- Contract - Department of Water Resources, State Water Project - Feather River

4.1.2 Water Rights

Table 16 contains a summary of the City's entitlements. Copies of the agreements are included in Appendix D.

4.1.2.1 SWRCB Permit Number 14045

In 1964 the City obtained the right to appropriate from the Feather River, pursuant to Application A018025, Permit 14045 "15.6 cubic feet per second by direct diversion to be diverted from January 1 to about July 1 and from about September 1 to December 31 of each year." Except for summer months, this permit is the basis of the City supply. Because it is one of the older permits, drought restrictions have only been applied twice. Drought restrictions occurred during the 1977 drought, the City's records do not indicate the degree of curtailment, and again in 1992 when the water could not be diverted in June.

In 1973, the SWRCB limited the City to 6,500 acre-feet per year (AFY) because the full entitlement was not being used. With this limitation, the Permit can provide up to 6,500 AFY. There is no cost for water taken under this permit.

Table 16 City Surface Water Allotments 2010 Urban Water Management Plan City of Yuba City				
Month	Permit 14045	Permit 18558	North Yuba Water District	DWR State Water Project⁽¹⁾
	Acre Feet	Acre Feet	Acre Feet	Acre Feet
January	959	1,291	0	3,672
February	866	1,166	0	3,316
March	959	1,291	0	3,672
April	928	1,250	181	3,553
May	959	1,291	492	3,672
June	928	1,250	893	3,553
July	0	0	922	3,672
August	0	0	922	3,672
September	928	0	714	3,553
October	959	1,291	376	3,672
November	928	1,250	0	3,553
December	959	1,291	0	3,672
Annual, AFY	6,500 Maximum	9,000 Maximum	4,500	9,600 Maximum
<u>Notes:</u>				
1. 9,600 AF can be taken in any month but City is limited to a maximum of 9,600 AFY.				

4.1.2.2 SWRCB Permit Number 18558

This permit allows the direct diversion of up to 21.0 cubic feet per second from the Feather River except during July, August, and September. Permit 18558 was issued in 1978 (Application A025751) and has a lower priority and more restrictions than Permit 14045. Permit 18558 is subject to Term 91 curtailments. During normal runoff years, Permit 18558 diversion is curtailed at the end of June. During below normal runoff years, Permit 18558 is curtailed in mid-May. Water was drawn from this permit for the first time in 2000. This permit will become more valuable as the winter water usage exceeds the demands of Permit 14045. There is no cost for water taken under this permit. Permit 18558 limits annual withdrawal to 9,000 AFY. The monthly total without the limit is 11,371 AF.

4.1.2.3 North Yuba Water District

The City negotiated a contract for water supply with the North Yuba Water District (NYWD) originally in 1965. Amendments have been made to the contract in 1970, 1980, and 2010. The agreement provides for direct diversion from the Feather River for each year through the end of calendar year 2035 and it may be renewed thereafter. The contract limits annual withdrawal to 4,500 AFY.

This contract is important in that it provides a base summer water supply. Supply under this contract has never been curtailed. The price of this water is tied to the consumer price index. The price for 2011 and 2012 will be \$55 and \$70 per acre-foot, respectively.

4.1.2.4 Department of Water Resources, State Water Project

The City executed this State Water Project (SWP) contract in 1963. The contract remains in force through 2035, with certain renewal rights. Maximum allowable allocation is 9,600 AFY. The contract is presently used to supplement the NYWD supply during the months of July and August. Water from this contract can be utilized in any month of the year.

Full allocations of water under this contract have been reduced several times. In 1990 and 1991, the allocations were reduced to 20 percent. The following year, in 1992 the allocation was 45 percent. Current cost of this water is approximately \$48.81 per acre-foot.

4.1.3 Current and Projected Water Supplies

The City has two surface water SWRCB Permits and two surface water supply contracts. The combination of permits and contracts has been established such that they supply reliable water under severe drought conditions. The only water source that has the possibility of significantly affecting the supply is the SWP contract. This contract has been significantly curtailed in critically dry years and during a series of dry years.

Increased long-term water demands, due to a larger service area, and increased number of customers will necessitate optimizing existing water supply. The reliability of the SWP allocations also necessitates augmentation to more reliably meet City customers' water supply needs.

The City and three other SWP contractors in the area of origin are currently pursuing a breach of contract and declaratory relief action against the Department of Water Resources (DWR) regarding the imposition of shortages under their SWP contracts. The City alleges that it established its rights under the area of origin statutes by entering into its SWP contract with DWR, and that it has a priority right to its full Table A Entitlement before DWR exports water to its SWP contractors south of the Delta. The City is seeking a judicial declaration to this effect. It is uncertain when this lawsuit will be resolved, but if the City is successful, the City would obtain greater reliability of supplies under its SWP contract.

Table 17 summarizes the current and projected water supply sources for the City. This table assumes that none of the contracts for surface water are curtailed.

Table 17 Water Supplies - Current and Projected (Guidebook Table 16) 2010 Urban Water Management Plan City of Yuba City						
Water Supply Sources	Projected Supply (AFY)					
Water purchased from:	2010	2015	2020	2025	2030	2035
SWRCB Permit 14045 ⁽¹⁾	6,500	6,500	6,500	6,500	6,500	6,500
SWRCB Permit 18558 ⁽¹⁾	9,000	9,000	9,000	9,000	9,000	9,000
North Yuba Water District	4,500	4,500	4,500	4,500	4,500	4,500
State Water Project	9,600	9,600	9,600	9,600	9,600	9,600
Supplier-Produced Groundwater ⁽²⁾	3,248	3,248	3,248	3,248	3,248	3,248
Supplier-Produced Surface Water ⁽³⁾	0	0	0	0	0	0
Transfers In	0	0	0	0	0	0
Exchanges In	0	0	0	0	0	0
Recycled Water	0	0	0	0	0	0
Desalinated Water	0	0	0	0	0	0
Other	0	0	0	0	0	0
Total, AFY	32,848	32,848	32,848	32,848	32,848	32,848
<p><u>Notes:</u> "Guidebook Table X" refers to a specific table in the "Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan" by DWR.</p> <ol style="list-style-type: none"> 1. No charges to the City for this water supply. 2. Groundwater well at WTP is typically only used in emergency water shortage situations. 3. Supplier surface water produced consists of the SWRCB permits, North Yuba Water District, and State Water Project since it is all treated through the Water Treatment Plant. 						

4.1.3.1 Wholesale Supplies

The City does not purchase treated water from any other agencies.

4.2 GROUNDWATER

The City maintains one back-up/standby groundwater well at the City's WTP, which has a capacity of approximately 2.9 mgd. In the event of a significant water shortage, this well could be blended with the available treated surface water to meet demand.

The City has not adopted a groundwater management plan as it no longer uses groundwater as a source of water other than in emergency situations. Sutter County is in the process of updating the County's groundwater management plan. A brief description of the groundwater basin is provided below.

The groundwater basin is the Sacramento Valley Groundwater Basin, Sutter Subbasin (identified as Groundwater Basin Number 5-21.62 by the Department of Water Resources). The Sutter Subbasin is bound on the north by the confluence of Butte Creek, the Sacramento River, and the Sutter Buttes, by the Sacramento River on the west, by the confluence of the Sacramento River and Sutter Bypass on the south, and on the east by the Feather River. The principal sources of groundwater recharge are stream percolation, deep percolation of rainwater, and percolation of irrigation water. Groundwater levels throughout the Sutter Subbasin are generally located within 10 feet of the ground surface (California Department of Water Resources, California's Groundwater Bulletin 118, Sacramento Valley Groundwater Basin, Sutter Subbasin January 20, 2006).

4.3 TRANSFER OPPORTUNITIES

The UWMPA requires the UWMP to address the opportunities for development of short or long-term transfer or exchange opportunities; see excerpt below.

10631 (d. Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.

There are opportunities for the City to purchase water rights/contracts from other water rights holders in the future. The City is currently exploring transfer options to firm up their summer water supply.

4.4 DESALINATED WATER OPPORTUNITIES

The UWMPA requires that the UWMP address the opportunities for development of desalinated water, including ocean water, brackish water, and groundwater; see excerpt below.

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

10631 (i) Describe the opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long term supply.

At the present time, the City does not foresee any opportunities for the use of desalinated water, including ocean water, brackish ocean water, and brackish groundwater, as a long-term supply. Because the City is not located in a coastal area, it is not practical nor economically feasible to implement a seawater desalination program. Additionally, groundwater in the region is not brackish in nature.

4.5 RECYCLED WATER OPPORTUNITIES

The UWMPA requires that the UWMP address the opportunities for development of recycled water, including the description of existing recycled water applications, quantities of wastewater currently being treated to recycled water standards, limitations on the use of available recycled water, an estimate of projected recycled water use, the feasibility of said projected uses, and practices to encourage the use of recycled water; see excerpt below.

10633. Provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier. The preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area.

It is important for the City to identify and secure reliable water supplies now, to accommodate future growth and drought. Recycled water would serve as a source of water for non-potable uses such as domestic and agricultural irrigation, and commercial and industrial uses.

Water reclamation in the City is currently not feasible. The City has explored recycled water options. The City and other agencies (City of Marysville and Linda County Water District) participated in the Yuba-Sutter Regional Recycled Water Master Plan (YSRRWMP) in May 2007 to develop alternatives to increase water supply reliability.

4.5.1 Wastewater Collection, Treatment Systems, and Disposal

The City owns, operates, and maintains a wastewater collection, treatment, and disposal system that provide sewerage service for the entire area served by the City water supply, except for those customers utilizing septage tanks. Originally, sewage treatment was provided by individual septage systems. Sometime prior to 1950, the City constructed a municipal sewage treatment plant and collection system. In the early 1970's, the original sewage treatment plant was abandoned, and the current facility constructed.

The City's Water Treatment Facility (WTF) is a secondary treatment plant facility with a pure oxygen activated sludge process designed to handle high biochemical oxygen demand loadings from the local food processing facility. Secondary effluent is disinfected using chlorine gas, dechlorinated, and discharged to the Feather River three miles downstream of the confluence with the Yuba River or to rapid infiltration and evaporation ponds if needed.

Currently, the plant is discharging the entire flow to the Feather River. The facility treats the domestic/commercial wastewater flows from the City as well as the industrial flows from Sunsweet and other industries. The plant also receives septage.

These facilities currently convey and treat an average influent dry weather flow of approximately 6.5 mgd and a peak hourly flow of approximately 12.0 mgd. The City

completed an upgrade and expansion of the existing WTF to provide treatment for an average dry weather flow of 10.5 mgd.

The City completed a wastewater master plan in 2005 and an update in March 2006. The plan outlined the projected wastewater flows through 2030 (Table 18). The quantity that meets secondary treatment recycled water standards is 100 percent.

Table 18 Recycled Water - Wastewater Collection and Treatment (Guidebook Table 21) 2010 Urban Water Management Plan City of Yuba City						
Type of Wastewater	2005	2010	2015	2020	2025	2030
Wastewater Collected and Treated in Service Area, AFY ⁽¹⁾	7,281	9,970	12,210	14,450	17,418	20,387
Volume that meets recycled water standard, AFY ⁽²⁾	7,281	9,970	12,210	14,450	17,418	20,387
Notes: "Guidebook Table X" refers to a specific table in the "Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan" by DWR. 1. Average annual flow, 2006 Wastewater Master Plan and 2005 UWMP. 2. The quantity of disinfected secondary effluent that meets recycled standards is 100 percent assuming potential uses of recycled water do not require tertiary treatment.						

The approximate amount of treated wastewater disposed to the Feather River is shown in Table 19.

Table 19 Recycled Water - Non-Recycled Wastewater Disposal (Guidebook Table 22) 2010 Urban Water Management Plan City of Yuba City						
Method of Disposal	Treatment	2010	2015	2020	2025	2030
Feather River ⁽¹⁾ , AFY	Secondary	8,849	11,090	13,366	16,298	19,267
In Plant Use ⁽²⁾ , AFY	Secondary	140	140	140	140	140
Total, AFY		8,989	11,230	13,506	16,438	19,407
Notes: "Guidebook Table X" refers to a specific table in the "Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan" by DWR. Source: 2005 Wastewater Master Plan and 2005 UWMP. 1. Approximately 25 percent of flow is discharges to percolation/evaporation ponds and 75 percent to the Feather River. 2. Used for irrigation of WTF property.						

The City WTF started the use of secondary treated wastewater effluent for irrigating the onsite landscaping and plant process uses in the third quarter of year 2005. During 2009, approximately 140 AF of treated effluent was used for irrigation of landscape at the facility.

4.5.2 Current and Projected Recycled Water Use

Water reclamation in the City is currently not feasible. The cost to produce reclaimed water is greater than the cost of fresh water supplies for both agriculture and urban uses. Until

these costs are somehow offset or reduced, there is no incentive for potential customers to use reclaimed water.

4.5.3 Potential Uses of Recycled Water

At this time, the only use of recycled water occurs on the WTF site. If the WTF is upgraded to provide Title 22 disinfected tertiary recycled water suitable for non-potable uses, the City can identify potential future uses and develop methods to encourage recycled water use. Most of the development within the sphere of influence is dedicated to low and high density residential, commercial, and light industrial land uses. Therefore, the irrigation of parks, median strips, commercial green areas, and residential yards may be the foremost opportunity for recycled water use. Table 20 shows a comparison of the actual recycled use in 2010 to the projected 2010 use in the 2005 UWMP.

Table 20 Recycled Water - 2005 UWMP Use Projection Compared to 2010 Actual (Guidebook Table 24) 2010 Urban Water Management Plan City of Yuba City		
User Type	2010 Actual Use	2005 Project for 2010
WTF Landscape Irrigation (Secondary Treated Wastewater), AFY	140	515
Total, AFY	140	515
<small>Notes: "Guidebook Table X" refers to a specific table in the "Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan" by DWR.</small>		

4.5.4 Encouraging Recycled Water Use

When the WTF is upgraded to provide Title 22 disinfected tertiary recycled water suitable for non-potable uses, the City can develop methods to encourage recycled water use.

4.5.5 Recycled Water Use Optimization Plan

When the WTF is upgraded to provide Title 22 disinfected tertiary recycled water suitable for non-potable uses, the City can develop a Recycled Water Use Optimization Plan.

4.6 FUTURE WATER PROJECTS

The City faces the prospect of a near-term water shortage, resulting from reduction of surface water allocations pursuant to its water rights contracts. Construction of a second well at the WTP is planned, but construction dates are unknown. The second well would be equipped for an assumed yield of up to 4 mgd (2,800 gpm) and would help to relieve the near-term water shortage. Additionally, the City plans to pursue securing additional water rights and potential transfer opportunities in the future.

The City and three other SWP contractors in the area of origin are currently pursuing a breach of contract and declaratory relief action against the DWR regarding the imposition of

shortages under their SWP contracts. The City alleges that it established its rights under the area of origin statutes by entering into its SWP contract with DWR, and that it has a priority right to its full Table A Entitlement before DWR exports water to its SWP contractors south of the Delta. The City is seeking a judicial declaration to this effect. It is uncertain when this lawsuit will be resolved, but if the City is successful, the City would obtain greater reliability of supplies under its SWP contract.

Although not intended for implication in the near future, the City has explored the feasibility of developing aquifer storage recovery (ASR) wells to provide seasonal and long-term underground storage of drinking water. ASR would make efficient use of existing water diversion, treatment, and transmission facilities. ASR is defined as the recharge of water into a well during times when water of suitable quality is available for storage and recovery of water from the same well during times when the water is needed.

Table 21 contains potential future water supply projects the City plans to pursue.

Table 21 Future Water Supply Projects (Guidebook Table 26) 2010 Urban Water Management Plan City of Yuba City								
Project Name	Projected Start Date	Projected Completion Date	Potential Project Constraints	Normal-year Supply, mgd	Single-Dry-year Supply, mgd	Multiple-Dry-year 1st Year Supply, mgd	Multiple-Dry-year 2nd Year Supply, mgd	Multiple-Dry-year 3rd Year Supply, mgd
Second Well at the WTP	Unknown	Unknown	Funding/ Water Quality	4.0	4.0	4.0	4.0	4.0
Additional Water Rights	Unknown	Unknown	Negotiations Permitting	TBD	TBD	TBD	TBD	TBD
Transfer Opportunities	Unknown	Unknown	Negotiations Funding	TBD	TBD	TBD	TBD	TBD
Aquifer Storage Recovery Well	Unknown	Unknown	Permitting, Regulatory, Funding	TBD	TBD	TBD	TBD	TBD
Notes: "Guidebook Table X" refers to a specific table in the "Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan" by DWR. TBD = To be determined								

WATER SUPPLY RELIABILITY AND WATER SHORTAGE CONTINGENCY PLANNING

The Urban Water Management Planning Act (UWMPA) requires that the Urban Water Management Plan (UWMP) address the reliability of the agency's water supplies. This includes supplies that are vulnerable to seasonal or climatic variations. In addition, an analysis must be included to address supply availability in a single-dry year and in multiple-dry years; see excerpt below.

10631 (f) An urban water supplier shall describe in the plan water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions."

10631 (c) (2) For any water source that may not be available at a consistent level of use, given specific legal, environmental, water quality, or climatic factors, describe plans to replace that source with alternative sources or water demand management measures, to the extent practicable.

5.1 WATER SUPPLY RELIABILITY

There are two aspects of supply reliability that can be considered. The first relates to immediate service needs and is primarily a function of the availability and adequacy of the supply facilities. The second aspect is climate-related, and involves the availability of water during mild or severe drought periods.

The City of Yuba City's (City) water source is the Feather River, north of the confluence with the Yuba River. Upstream dams on all forks of Feather River control flow in the Feather River. Oroville Dam is the primary upstream control. The Department of Water Resources (DWR) operates Oroville Reservoir for the State Water Project (SWP). Due to the critical nature of water supply by the SWP, there is an extremely small chance that water could not be withdrawn. This results in a high reliability water source.

Oroville Dam was completed in 1967. Since the dam's completion, there has always been sufficient flow in the Feather River to allow withdrawal of some water. This includes the drought periods of the 1970's, 1980's, and 1990's. In the event of a catastrophic problem that prevents any release from Lake Oroville, the City would implement significant mandatory water conservation, and blend available surface water with a standby groundwater well located at the Water Treatment Plant (WTP).

Other than water shortage and emergency conditions, it appears that water would always be available for withdrawal from the Feather River.

The City has two State Water Resources Control Board (SWRCB) Permits, two surface water supply contracts, and a standby groundwater well. The combination of permits and contracts has been established such that they supply reliable water under severe drought conditions.

Historically the only factor that has affected the reliability of these sources has been seasonal rain and snowfall. Following is curtailment history for the City's Feather River diversions:

- Permit 14045 has only been curtailed once since 1984
- Permit 18558 has been curtailed several times
- North Yuba Water District has never curtailed delivery in the last 30 years
- State Water Project is subject to annual curtailment

The only water source that has the possibility of significantly affecting the supply is the SWP contract. Under severe drought conditions, the SWP allocation could be limited to 20 percent or lower (2009 State Water Project Delivery Reliability Report).

The City and three other SWP contractors in the area of origin are currently pursuing a breach of contract and declaratory relief action against the DWR regarding the imposition of shortages under their SWP contracts. The City alleges that it established its rights under the area of origin statutes by entering into its SWP contract with DWR, and that it has a priority right to its full Table A Entitlement before DWR exports water to its SWP contractors south of the Delta. The City is seeking a judicial declaration to this effect. It is uncertain when this lawsuit will be resolved, but if the City is successful, the City would obtain greater reliability of supplies under its SWP contract.

Table 22 contains a summary of factors affecting water supply reliability. Climatic factors represent potential curtailments and water quality factors represent illegal dumping in the river. Other factors that could affect the ability to deliver water from the Feather River could include vandalism of the water pumping station or another emergency condition.

In the event of severe water quality impacts of the Feather River, several immediate steps would take place:

- Pumping of raw water from the Feather River would immediately stop
- Use of treated stored water would be initiated
- Large water customers would be told to shut down
- Mandatory water conservation would be required of all customers
- The City Emergency Operations Center would be activated

Table 22 Factors Resulting in Inconsistency of Supply (Guidebook Table 29) 2010 Urban Water Management Plan City of Yuba City							
Water Supply Sources⁽¹⁾	Specific Source Name	Limitation Quantification	Legal	Environmental	Water Quality	Climatic	Additional Information
Permit 14045	Feather River	Yes	-	-	Yes	Yes	-
Permit 18558	Feather River	Yes	-	-	Yes	Yes	-
North Yuba Water District	Feather River	Yes	-	-	Yes	-	-
State Water Project	Feather River	Yes	-	-	Yes	Yes	-
Backup Groundwater Well	Sutter Subbasin	Yes ⁽²⁾	-	-	Yes	-	-
<p>Notes: "Guidebook Table X" refers to a specific table in the "Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan" by DWR.</p> <p>1. Water supply sources from Guidebook Table 16 (Table 17 in this report).</p> <p>2. Limited by pumping capacity.</p>							

5.2 WATER QUALITY

The UWMPA requires that the UWMP include a discussion of water quality impacts on the reliability of an agency's water supplies; see excerpt below.

10634. The plan shall include information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments as described in subdivision (a) of Section 10631 and the manner in which water quality affects management strategies and supply reliability.

The purpose of this section is to discuss the quality of the City's surface water and groundwater supplies, and the potential impacts water quality may have on supply reliability.

The U.S. Geological Survey completed an evaluation of water quality conditions of the Feather River as a component of an overall analysis of conditions in the Sacramento River watershed. Average concentrations from monthly water samples for conventional physical and inorganic chemical constituents measured in the Feather River at Nicolaus and at Marysville from February 1996 through April 1998 indicated that both rivers were low in total dissolved solids and total hardness, had a neutral pH, moderate alkalinity, and adequate dissolved oxygen levels for aquatic organisms. The water in the Feather River is also generally low in nutrients (nitrogen and phosphorus) that can cause growth of nuisance algae and aquatic vascular plants. Trace metal content is low in both rivers. Although mercury is routinely detected in the Feather River, the concentrations have not exceeded ambient criteria. Pesticides have been detected in the Feather River; however, with the exception of the drinking-water standard for carbofuran, there are no applicable regulatory

criteria established for the pesticides that have been detected. Pesticide levels in the Feather River are presumably related to the influence of the extensive agricultural and urban activities (Oroville, Marysville, and Yuba City) occurring in the watershed (PBS&J/EIP, Feather River Setback Levee Project at Star Bend Draft Environmental Impact Report (SCH #2006052087), prepared for Levee District No.1 of Sutter County, February 2007).

The City does not anticipate a reduction in supply as a result of water quality issues due to the nature of the potential water quality impacts described above, no future unaddressed impacts have been identified, and the potential quantitative impacts cannot be established.

5.3 WATER SHORTAGE CONTINGENCY PLANNING

The UWMPA requires that the UWMP include an urban water shortage contingency analysis that addresses specified issues; see excerpt below.

10632. The plan shall provide an urban water shortage contingency analysis, which includes each of the following elements, which are within the authority of the urban water supplier:

10632 (a) Stages of action to be undertaken by the urban water supplier in response to water supply shortages, including up to a 50 percent reduction in water supply and an outline of specific water supply conditions which are applicable to each stage.

This Water Shortage Contingency Plan, if implemented, would be enforced within the City's service area. Preparation of the plan was coordinated with other local water purveyors that have interties with the City. In addition, a copy of this plan was submitted to the City and County Offices of Emergency Planning.

The Water Shortage Contingency Planning includes actions to be taken during droughts and catastrophic reductions in water supplies and conservation measures and actions (prohibitions, restrictions, and penalties).

The California Water Code requires that the City coordinate, to the extent practicable, preparation of its urban water shortage contingency plan with other urban water suppliers and public agencies in the area. The City does not have any interconnections between its potable water system and potable water systems operated by other water suppliers.

The City's Water Shortage Contingency Planning includes actions to be taken during a catastrophic reduction in water supplies, conservation measures and actions (prohibitions, restrictions, and penalties).

5.3.1 Emergency/Disaster Response Plan

The UWMPA requires that the UWMP include an urban water shortage contingency analysis that addresses a catastrophic interruption of water supplies; see excerpt below.

10632. The plan shall provide an urban water shortage contingency analysis, which includes each of the following elements, which are within the authority of the urban water supplier:

10632 (c) Actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including, but not limited to, a regional power outage, an earthquake, or other disaster.

The stages of action to be undertaken during a catastrophic interruption of water supply in the Feather River or the City's water treatment facilities that could include flooding, major fire emergencies, regional power outage, an earthquake, water contamination, and acts of sabotage. In response to these possibilities, the City has developed an Emergency/Disaster Response Plan as described below. Appendix E contains the City's Ordinance for the City Council to declare a water shortage emergency, the Water Emergency Notification Plan, and the City Water System Ordinance that contains water restrictions and enforcement measures during a water shortage.

The City is not located within a high activity seismic zone. The risk of earthquake is minor. All water plant improvements are designed to meet seismic standards.

Another potential catastrophic water supply interruption would be a significant reduction in flow in the Feather River due to drought or upstream reservoir failures. The City maintains approximately 20.6 million gallons of treated water in storage. The City also maintains a standby water supply well at the WTP that can be used in the event surface water is not available.

The eastern boundary of the City is the Feather River. Feather River flow is controlled by upstream reservoirs and levee system. The City experienced a significant flood in 1955. Levees on the other, east, side of the Feather River failed in 1985 and 1997. The City was evacuated in 1997 due to potential failure of the levee system. Significant improvements have been made to the levee system since 1997 including stabilization rock, slurry walls, and relief wells.

Annually, City staff conducts an emergency drill simulating a flood or other significant catastrophe. City staff has visited other cities that have recovered from significant flood events to learn from their experience. A detailed slow rise flood emergency plan has been prepared. The City is fully certified under the Standardized Emergency Management System (SEMS) and maintains access to all benefits associated with the system.

The City public safety operates an emergency telephone system. This system can be programmed to dial up to eight numbers at a time with a prerecorded message. The City maintains a mutual aid agreement with Roseville that adds an additional sixteen lines. This system could make up to 1,440 calls per hour. All customers with phones, listed or unlisted, could be notified in less than eight hours. In the event of a need to immediately reduce water consumption this system can be put into place within an hour. Other emergency notification methods include police car patrolling with loud speakers, radio, cable television, and low power radio station.

The City has developed a relationship with the local cable company that includes the use of Channel 5 as a method of communicating emergency information to all area subscribers. Messages can be quickly placed on Channel 5 informing residents of the local emergency and desired actions on their part.

Local radio station AM1600 is designated as the local emergency response radio station. In the event of an emergency, the station can inform residents of the local emergency and desired actions on their part.

The City owns and maintains a low power radio system. This system operates 24 hours per day with a prerecorded message. In the event of an emergency, the message can be easily changed to inform residents of requested actions.

Employees are on standby weekends and holidays. In the event of a localized emergency condition, the police dispatcher can contact standby personnel and call in additional personnel if required. The water plant is staffed 24 hours per day, 7 days per week.

The City WTP maintains an emergency diesel powered generator sized to run the entire plant at peak load. The generator continuously monitors availability of Pacific Gas & Electric (PG&E) electricity. In the event of a power outage, the generator is online within ten seconds. The generator contains sufficient fuel to run 24 hours at full load, longer under a reduced load. Additional fuel is stored at the WTP, Public Works Corporation Yard, and wastewater plant. In addition, the City maintains contracts for emergency delivery of fuel.

5.3.2 Water Shortage Contingency Resolution and Ordinance

The California Water Code requires that the City develop mandatory provisions and a draft water shortage contingency resolution as part of the UWMP to reduce water use, including prohibitions against specific wasteful practices, such as gutter flooding. The City Water System Ordinance that contains water restrictions and enforcement measures during a water shortage and the Ordinance for the City Council to declare a water shortage emergency are included in Appendix E.

The City Ordinance allows the City Council to declare an emergency condition and institute mandatory water conservation programs. Such measures include:

- Irrigation limitations to two times per week
- No use of water on impermeable surfaces
- All evaporative coolers must be recirculating type
- Shutoff nozzles on all hoses
- Large water users must submit a conservation plan
- Car wash limitations
- Water requirements for trees, shrubs, and other plant materials except lawns

- Requirements for leak repair
- Prohibition of fountains, ponds, etc.
- Restaurant restrictions

The City normally operates its water distribution system at 50 to 60 pounds per square inch (psi). In the event of significant water shortages, the system pressure could be reduced. System pressure is maintained using variable speed pumps. No elevated water storage tanks are in use. The pressure reduction would reduce demand and reduce the amount of distribution system leakage.

The City Fire Department maintains direct contact with the WTP via radios and phones. In the event of a fire, the system pressure can be increased almost instantly through the WTP Supervisory Control and Data Acquisition (SCADA) system. This system allows remote operation of all water booster stations and reservoirs from the WTP. The WTP is staffed 24 hours per day, 7 days per week.

The City Council would be required to act on this ordinance when needed. The City Council meets two times per month, but can schedule emergency meetings if required.

5.3.3 Water Shortage Conservation Plan

The City has developed a four-stage conservation plan. The plan includes voluntary and mandatory stages. The development of the stages is based on current water supply contracts, and expected annual growth of current customer base. Shortage conditions are based on percent reduction of water supply. The stages of action in response to water supply shortages, including up to a 50 percent reduction in water supply are summarized in Table 23.

Table 23 Water Shortage Contingency - Rationing Stages to Address Water Supply Shortages (Guidebook Table 35) 2010 Urban Water Management Plan City of Yuba City		
Stage No.	Water Supply Conditions	% Shortage
1	Warm weather and SWP curtailment	20
2	Warm weather and SWP curtailment July - September	20-30
3	Warm weather and SWP drought curtailments July - September	30-40
4	Catastrophic interruption in water supply Severe water quality impacts on the Feather River	40-50
Notes: "Guidebook Table X" refers to a specific table in the "Guidebook to Assist Water Suppliers in the Preparation of a 2010 Urban Water Management Plan" by DWR.		

Supply shortages will trigger the different water rationing stages. Based on historical supply of water during drought conditions it is highly unlikely that shortages will take place in months other than July, August, or September. Contracted water in other months far exceeds the expected demand, and the City's water right contracts and permits have not been subject to curtailment in non-summer months.

During June, July, and August the only available surface water contracts are with North Yuba Water District (NYWD) and SWP. NYWD has never curtailed or reduced delivery during the last 30 years. The SWP is subject to reduction in delivery.

In addition to conservation actions, the City is required to develop mandatory prohibition against specific water use during shortages and consumption reduction methods in the most restrictive stages including up to a 50 percent reduction in water supply.

The City Municipal Code Section 6-6.19 contains emergency water restriction criteria that must be met once the City Council declares an emergency. A summary of the prohibitions is shown below in Table 24. The prohibitions listed below are voluntary at Stage 2.

A summary of the reduction methods is shown in Table 25. In the event of a 50 percent reduction for a single year the City will continue with Stage 3 rationing measures, mandate adherence to all Stage 4 measures, intensify media outreach program with regular updates on the emergency, and monitor production weekly for compliance with necessary reduction.

The City Municipal Code Section 6-6.20 contains enforcement measures that will take place once the City Council declares an emergency. Penalties and charges as well as possible disconnection of service will be enforced on water wasters under this condition. The penalties or charges for excessive use during water shortages at each Water Shortage Stage are summarized in Table 26.

5.3.4 Residential Users and Unmetered Commercial/Industrial Uses

The City began installing water meters in the 1990's. Until 2010, there was a combination of metered and flat-rate billing. Installation of meters on all connections was completed in July 2010. Monthly meter readings will be used to ensure compliance. In the event of a severe shortage meters could be read more frequently.

5.3.5 Mechanism for Determining Actual Reductions in Water Use

The UWMPA requires that the UWMP include a means to determine the actual water use reduction in the event of a water shortage; see excerpt below.

10632. The plan shall provide an urban water shortage contingency analysis, which includes each of the following elements, which are within the authority of the urban water supplier:

10632 (i) A mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.

Table 24 Water Shortage Contingency - Mandatory Prohibitions (Guidebook Table 36) 2010 Urban Water Management Plan City of Yuba City	
Prohibitions	Stage When
Street and Sidewalk Cleaning	3
Washing Cars	3
Residential Landscape Restrictions	3
Plumbing Leak Requirements	3
Gutter Flooding	3
Recirculating Evaporative Coolers	3
Public, Commercial, and Industrial Landscape Restrictions	3
Automatic Shut Off Nozzles	3
Commercial Nurseries	3
Decorative Water Facilities	3
Restaurants	3
Notes: "Guidebook Table X" refers to a specific table in the "Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan" by DWR.	

Table 25 Water Shortage Contingency - Consumption Reduction Methods (Guidebook Table 37) 2010 Urban Water Management Plan City of Yuba City		
Consumption	Stage When	Projected Customer Reduction Goal
Demand Reduction Education	All	10% - 40%
Reduced Water Pressure	4	40%
Use Prohibitions	3	30%
Water Shortage Pricing	4	40%
Plumbing Fixture Replacements – Water Conserving	3	30%
Voluntary Rationing	1	10%
Mandatory Rationing	3	30%
Notes: "Guidebook Table X" refers to a specific table in the "Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan" by DWR.		

Table 26 Water Shortage Contingency - Penalties and Charges (Guidebook Table 38) 2010 Urban Water Management Plan City of Yuba City	
Penalties or Charges	Stage When Penalty Takes Effect
Flat Fine	3
Flow Restrictions	4
Termination of Service	4
<u>Notes:</u> "Guidebook Table X" refers to a specific table in the "Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan" by DWR.	

Metered account reductions in water use for each user can be determined based on meter readings. Under normal water supply conditions, water production figures are recorded daily. The Water Plant Supervisor monitors water production. Totals are reported monthly to the Public Works Director and to the California Department of Public Health.

Once a Stage 2 shortage is declared the Water Plant Supervisor will begin to track, and graph, water production and determine if the voluntary goal is being achieved. Results of the review will be reported to the Public Works Director weekly.

If the City Council declares a Stage 3 condition, the reduction of demand will be monitored daily. Weekly reports will be presented to the Public Works Director, and updates as required to the City Manager and City Council. Use of the media will also take place to inform citizens on a weekly basis of their conservation status.

In an emergency shortage, the City Emergency Operations Center will be activated. The Operations Center would be staffed 24 hours per day with top city managers including Police Department, Fire Department, Public Works, and Finance. Water storage is instantly available via the departments SCADA system. Updates to the public will be made to the media through a public information officer. Information will also be transmitted on the City public radio station.

5.3.6 Analysis of Revenue Impacts of Reduced Sales during Shortages

According to the UWMPA, the UWMP is required to include an urban water shortage contingency analysis that addresses the financial impacts from reduced water sales and proposed measures to overcome deficits (e.g., development of a reserve account or special rate adjustments); see except below.

10632. The plan shall provide an urban water shortage contingency analysis, which includes each of the following elements, which are within the authority of the urban water supplier:

10632 (g) An analysis of the impacts of each of the actions and conditions described in subdivisions (a) to (f), inclusive, on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments.

10632 (g) An analysis of the impacts of each of the proposed measures to overcome those revenue and expenditure impacts, such as the development of reserves and rate adjustments.

The California Water Code requires that the Water Shortage Contingency Plan include an analysis of impacts on the City's revenues and expenditures and proposed measures to overcome deficits (e.g., development of a reserve account or special rate adjustments).

The City water utility is a financially independent enterprise. In the event of a significant drought, or water shortage, resulting in reduced customer demand, there would be reduction in revenues. Metered customers are billed per unit of water used, with a minimum monthly fee determined by the meter size. If there were a significant reduction in demand due to customer conservation measures, reduction of income would also take place. A decrease in expenses related to power costs, raw water costs, and chemicals to treat the water would also occur with a decrease in demand for water.

The Utility could absorb a reduction of income without an immediate required rate adjustment. However, the rate structure would be evaluated and long-term adjusted if required. The City maintains a minimum of three months operating reserves and 3.5 million dollars in reserves that can be used as an emergency fund for water in the event of water shortages.

5.4 DROUGHT PLANNING

This section considers the City's water supply reliability during three water scenarios: average year, single-dry year, and multiple-dry year period. These scenarios are defined as follows:

- **Average year:** a year in the historical sequence that most closely represents median runoff levels and patterns. It is defined as the median runoff over the previous 30 years or more. This median is recalculated every 10 years.
- **Single-dry year:** generally considered to be the lowest annual runoff for a watershed since the water-year beginning in 1903. Suppliers should determine this for each watershed from which they receive supplies.
- **Multiple-dry year period:** generally considered to be the lowest average runoff for a consecutive multiple year period (three years or more) for a watershed since 1903.

Since the City's only water supply in future years will come from the Feather River, seasonal and climatic changes may affect the availability of water. The backup groundwater well at the WTP can be used to supplement surface water if needed.

The specific years identified for normal, single-dry and multiple-dry water years presented in Table 27 were selected after a review of the excerpts from the 2009 State Water Project Delivery Reliability Report (SWPDRR).

Table 27 Basis of Water Year Data (Guidebook Table 27) 2010 Urban Water Management Plan City of Yuba City	
Water Year Type	Base Year(s)
Average Water Year	1922-2003
Single-Dry Water Year	1988
Multiple-Dry Water Years	1990-1992
<u>Notes:</u> "Guidebook Table X" refers to a specific table in the "Guidebook to Assist Water Suppliers in the Preparation of a 2010 Urban Water Management Plan" by DWR.	

Table 28 contains a summary of the water supply for each water type year. Table 29 contains the actual water supply by source for the average water year and multiple-dry water years. The tables are followed by assumptions used for each year type. Assumptions for the SWP are based on the percentages that the 2009 SWPDRR estimates for allocation, under today's operational conditions do not include climate change.

Table 28 Supply Reliability - Historical Conditions (Guidebook Table 28) 2010 Urban Water Management Plan City of Yuba City					
Average Water Year (AFY)	Single-Dry Water Year (AFY)	Multiple-Dry Water Years (AFY)			
		Year 1	Year 2	Year 3	Year 4
29,200	25,360	25,072	25,552	26,032	-
Percent of Average Year:	86.8	85.9	87.5	89.2	-
<u>Notes:</u> "Guidebook Table X" refers to a specific table in the "Guidebook to Assist Water Suppliers in the Preparation of a 2010 Urban Water Management Plan" by DWR.					

Table 29 Supply Reliability - Current Water Sources (Guidebook Table 31) 2010 Urban Water Management Plan City of Yuba City				
Water Supply Sources⁽¹⁾	Average Water Supply Year, AFY	Multiple-Dry Water Years, AFY		
		Year 2011	Year 2012	Year 2013
Permit 14045	6,500	6,500	6,500	6,500
Permit 18558	9,000	9,000	9,000	9,000
North Yuba Water District	4,500	4,500	4,500	4,500
State Water Project	5,952	1,824	2,304	2,784
Backup Groundwater Well	3,248	3,248	3,248	3,248
Total (AFY):	29,200	25,072	25,552	26,032
Percent of Average Year:		85.9	87.5	89.2
Notes: "Guidebook Table X" refers to a specific table in the "Guidebook to Assist Water Suppliers in the Preparation of a 2010 Urban Water Management Plan" by DWR. 1. From Guidebook Table 16 (Table #).				

Average year assumptions are as follows:

- Permit 14045 is not curtailed, 6,500 acre-feet (AF) available.
- Permit 18558 is not curtailed, 9,000 AF available.
- NYWD is not curtailed, 4,500 AF available.
- SWP allocation is 62 percent with 5,952 AF available.
- Groundwater from the standby well at the WTP is pumped at 3,248 AF.
- Total 29,200 AF.

A single-dry year assumptions (water year 1988):

- Permit 14045 is not curtailed, 6,500 AF available.
- Permit 18558 is curtailed on June 21, 9,000 AF available.
- NYWD is not curtailed, 4,500 AF.
- SWP allocation is reduced to 22 percent allocation, 2,112 AF.
- Groundwater from the standby well at the WTP is pumped at 3,248 AF.
- Total 25,360 AF available.

The multiple-dry year assumptions are (used water years 1990, 91, and 92):

- Permit 14045 is curtailed on June 1 in year 3, 6,500 AF will be available.

- Permit 18558 is curtailed on May 14 of year 1, on June 10 in year 2, and on May 21 in year 3. However, in all three years, 9,000 AF will be available.
- NYWD is not curtailed, 4,500 AF.
- SWP allocation is reduced to 19 percent for year 1, 24 percent for year 2, and 29 percent for year 3. Full allocation is 9,600 AF. Accordingly, SWP supply will be 1,824, 2,304, and 2,784 AF for years 1 through 3, respectively.
- Groundwater from the standby well at the WTP is pumped at 3,248 AF in each year.
- Total in year one – 25,072 AF with restrictions to Permit 18558 in May and allocation reduced for SWP to 19 percent.
- Total in year two – 25,552 AF with June restrictions to Permit 18558 and SWP allocation of 24 percent.
- Total in year three – 26,032 AF with June restrictions to Permit 14045, May and June restrictions to Permit 18558 and SWP allocation of 29 percent.

5.4.1 Minimum Supply Available for the Next Three Years

The California Water Code requires that the City estimate the minimum water supply available at the end of the 12, 24, and 36 months, assuming the driest three-year historic supply shortage. The three-year minimum water supply was assumed to be 1990 through 1992. The actual deliveries were used for the Permit 14045 and NYWD contract. Although Permit 18558 was not in use, Term 91 curtailment dates were used to determine the amount of water that would have been delivered if diversions were being made. The SWP delivery was assumed using the data from the 2009 SWPDRR. Supplemental groundwater supply from the standby well at the WTP is included. The minimum supply available based on the multiple-dry year assumptions described in the previous section are:

- Total in year one – 25,072 AF with restrictions to Permit 18558 in May and allocation reduced for SWP to 19 percent.
- Total in year two – 25,552 AF with June restrictions to Permit 18558 and SWP allocation of 24 percent.
- Total in year three – 26,032 AF with June restrictions to Permit 14045, May and June restrictions to Permit 18558 and SWP allocation of 29 percent.

To meet projected demand during a three-year drought, additional measures will need to be taken to balance supply and demand during high demand periods. The options include:

- Obtain additional water supply through contracts/increase reliability of existing contract.
- Increase conservation efforts.
- Construct a second groundwater well at the WTP.

- Utilize recycled water.
- Utilize aquifer storage and recovery.

5.4.2 Supplies and Demands for Normal Water Year

The water demands through 2035 are estimated based on water conservation, the historical daily use criteria, water use targets, and population projections. The projected normal water year supply and demands are summarized in Table 30.

Table 30 Supply and Demand Comparison - Average Year (Guidebook Table 32) 2010 Urban Water Management Plan City of Yuba City					
	2015	2020	2025	2030	2035⁽¹⁾
Supply Totals (Guidebook Table 16), AFY	32,848	32,848	32,848	32,848	32,848
Demand Totals (Guidebook Table 11), AFY	21,012	21,653	25,052	29,041	33,269
Difference, AFY	11,836	11,195	7,796	3,807	-421
Difference as % of Supply	36.0	34.1	23.7	11.6	-1.3
Difference as % of Demand	56.3	51.7	31.1	13.1	-1.3
Notes: "Guidebook Table X" refers to a specific table in the "Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan" by DWR.					
1. Buildout in 2035.					

Actual shortages would occur due to the nature of the City's raw water supply contracts. Water diversions under Permits 14045 and 18558 are not available during the summer months due to the permits' season of diversion. Summer raw water supply is currently met with the NYWD and SWP contracts. The NYWD contract has never been curtailed and is considered a very reliable water source. The SWP contract is not as reliable during dry years and curtailments are regularly enacted.

5.4.3 Supplies and Demands for a Single-Dry Water Year

The single-dry-year minimum water supply was assumed to be 1988. Table 31 provides estimates of the projected single-dry year water demand condition. The SWP delivery was assumed using the data from the 2009 SWPDRR. The single-dry-year assumptions are as follows:

- Permit 14045 is not curtailed, 6,500 AF available.
- Permit 18558 is curtailed on June 21, 9,000 AF available.
- NYWD is not curtailed, 4,500 AF.
- SWP allocation is reduced to 22 percent allocation, 2,112 AF.
- Groundwater from the standby well at the WTP is pumped at 3,248 AF.

- Total 25,360 AF available.

Table 31 Supply and Demand Comparison - Single-Dry Year (Guidebook Table 33) 2010 Urban Water Management Plan City of Yuba City					
	2015	2020	2025	2030	2035⁽¹⁾
Supply Totals, AFY	25,360	25,360	25,360	25,360	25,360
Demand Totals, AFY	21,012	21,653	25,052	29,041	33,269
Difference, AFY	4,348	3,707	308	-3,681	-7,909
Difference as % of Supply	17.1	14.6	1.2	-14.5	-31.2
Difference as % of Demand	20.7	17.1	1.2	-12.7	-23.8
Notes: "Guidebook Table X" refers to a specific table in the "Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan" by DWR. 1. Buildout in 2035.					

Currently, even with water conservation, the City is approximately 3,681 AF short in the year 2030 and 7,909 AF short in the year 2035 during the single-dry year. However, there are several options available to the City to meet future demand. These include:

- Obtain additional water supply through contracts/increase reliability of existing contract
- Increase conservation efforts
- Utilize additional groundwater
- Utilize recycled water
- Utilize aquifer storage and recovery

5.4.4 Supply and Demand for Multiple-Dry Water Year Periods

This section projects the impact of a multiple-dry year period. Any demand reductions due to future water conservation measures are not included in the multiple-dry year demand estimates. Table 32 provides estimates of the projected multiple-dry year water demand condition.

Table 32 Supply and Demand Comparison - Multiple-Dry Year (Guidebook Table 34) 2010 Urban Water Management Plan City of Yuba City						
		2015	2020	2025	2030	2035⁽¹⁾
Multiple-Dry Year First Year Supply	Supply Totals, AFY	25,072	25,072	25,072	25,072	25,072
	Demand Totals, AFY	21,012	21,653	25,052	29,041	33,269
	Difference, AFY	4,060	3,419	20	-3,969	-8,197
	Difference as % of Supply	16.2	13.6	<0.1	-15.8	-32.7
	Difference as % of Demand	19.3	15.8	<0.1	-13.7	-24.6
Multiple-Dry Year Second Year Supply	Supply Totals, AFY	25,552	25,552	25,552	25,552	25,552
	Demand Totals, AFY	21,012	21,653	25,052	29,041	33,269
	Difference, AFY	4,540	3,899	500	-3,489	-7,717
	Difference as % of Supply	17.8	15.3	2.0	-13.7	-30.2
	Difference as % of Demand	21.6	18.0	2.0	-12.0	-23.2
Multiple-Dry Year Third Year Supply	Supply Totals, AFY	26,032	26,032	26,032	26,032	26,032
	Demand Totals, AFY	21,012	21,653	25,052	29,041	33,269
	Difference, AFY	5,020	4,379	980	-3,009	-7,237
	Difference as % of Supply	19.3	16.8	3.8	-11.6	-27.8
	Difference as % of Demand	23.9	20.2	3.9	-10.4	-21.8
Notes: "Guidebook Table X" refers to a specific table in the "Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan" by DWR. 1. Buildout in 2035.						

The multiple-dry-year water supply was assumed to be 1990 through 1992. The SWP delivery was assumed using the data from the 2009 SWPDRR. The multiple-dry year assumptions are as follows:

- Permit 14045 is curtailed on June 1 in year 3, 6,500 AF will be available.
- Permit 18558 is curtailed on May 14 of year 1, on June 10 in year 2, and on May 21 in year 3. However, in all three years, 9,000 AF will be available.
- NYWD is not curtailed, 4,500 AF.
- SWP allocation is reduced to 19 percent for year 1, 24 percent for year 2, and 29 percent for year 3. Full allocation is 9,600 AF. Accordingly, SWP supply will be 1,824, 2,304, and 2,784 AF for years 1 through 3, respectively.
- Groundwater from the standby well at the WTP is pumped at 3,248 AF in each year.

- Total in year one – 25,072 AF with restrictions to Permit 18558 in May and allocation reduced for SWP to 19 percent.
- Total in year two – 25,552 AF with June restrictions to Permit 18558 and SWP allocation of 24 percent.
- Total in year three – 26,032 AF with June restrictions to Permit 14045, May and June restrictions to Permit 18558 and SWP allocation of 29 percent.

5.4.5 Drought Planning Summary

In summary, on an annual basis, under normal water year conditions the City is able to meet the full needs of its customers beyond year 2030. However, during critically dry years and multiple-dry year periods, the City is supply short by 2030. During the summer months of July through September it is likely the City will be supply short sooner.

As mentioned previously, there are several ways that the City can close the gap between supply and demand. These include:

- Obtain additional water supply through contracts/increase reliability of existing contract.
- Increase conservation efforts.
- Utilize additional groundwater.
- Utilize recycled water.
- Utilize aquifer storage and recovery.

DEMAND MANAGEMENT MEASURES

This chapter presents a detailed analysis of the Demand Management Measures (DMMs) contained in the Urban Water Management Planning Act (UWMPA), as well as the City of Yuba City's (City) existing efforts to further develop their water conservation program. The description, effectiveness, implementation schedule, costs, and methods of improvement for each of the DMMs have been included; see excerpt below.

10631 (f)(1) and (2) Describe and provide a schedule of implementation for each water demand management measure that is currently being implemented, or scheduled for implementation, including the steps necessary to implement any proposed measures, including, but not limited to, all of the following:

(A) Water survey programs for single-family residential and multifamily residential customers.; (B) Residential plumbing retrofit.; (C) System water audits, leak detection, and repair.; (D) Metering with commodity rates for all new connections and retrofit of existing connections.; (E) Large landscape conservation programs and incentives.; (F) High-efficiency washing machine rebate programs.; (G) Public information programs.; (H) School education programs.; (I) Conservation programs for commercial, industrial, and institutional accounts.; (J) Wholesale agency programs.; (K) Conservation pricing.; (L) Water conservation coordinator.; (M) Water waste prohibitions.; and (N) Residential ultra-low-flush toilet replacement programs.

10631 (f)(3) A description of the methods, if any, that the supplier will use to evaluate the effectiveness of water demand management measures implemented or described under the plan.

10631 (f)(4) An estimate, if available, of existing conservation savings on water use within the supplier's service area, and the effect of the savings on the supplier's ability to further reduce demand.

10631 (g) An evaluation of each water demand management measure listed in paragraph (1) of subdivision (f) that is not currently being implemented or scheduled for implementation. In the course of the evaluation, first consideration shall be given to water demand management measures, or combination of measures, that offer lower incremental costs than expanded or additional water supplies. This evaluation shall do all of the following:

(1) Take into account economic and noneconomic factors, including environmental, social, health, customer impact, and technological factors; (2) Include a cost-benefit analysis, identifying total benefits and total costs; (3) Include a description of funding available to implement any planned water supply project that would provide water at a higher unit cost; and (4) Include a description of the water supplier's legal authority to implement the measure and efforts to work with other relevant agencies to ensure the implementation of the measure and to share the cost of implementation.

6.1 INTRODUCTION

In 1991, a Memorandum of Understanding (MOU) regarding urban water conservation in California formed the California Urban Water Conservation Council (CUWCC). Council members can submit their most recent Best Management Practices (BMP) reports with their UWMP to address the urban water conservation issues in the UWMPA. However, the City is not currently a signatory of the MOU and is therefore not a member of CUWCC. The City

realizes the importance of the BMPs to ensure a reliable future water supply and is committed to implementing water conservation and water recycling programs to maximize sustainability in meeting future water needs for its customers. Appendix C contains the City's Water Conservation Implementation Plan (November 2010).

For purposes of responding to the UWMPA, the City will address the 14 DMMs. The current implementation status of the City's DMMs is summarized in Table 33. Of the 14 DMMs shown, the City has not implemented two (DMM 6 and 14). A more detailed description of each DMM and the City's efforts is provided in the following paragraphs.

Table 33 Demand Management Measure Overview 2010 Urban Water Management Plan City of Yuba City		
DMM	City Conservation Program	Compliance
DMM 1 - Water Survey Programs for Single- and Multi-Family Customers	Water audits are offered to all customers if requested.	Implemented
DMM 2 - Residential Plumbing Retrofit	Outreach, Pursuing grant funding, Water Conservation Resource Kits	Partially Implemented
DMM 3 - System Water Audits, Leak Detection and Repair	City has a program of audits, leak detection, and repair	Implemented
DMM 4 - Metering with Commodity Rates for all New Connections and Retrofit of Existing Connections	Meter installation on all connections completed in July 2010.	Implemented
DMM 5 - Large Landscape Conservation Programs and Incentives	Parks automatically adjust irrigation schedules based on weather. Irrigation meters installed.	Implemented
DMM 6 - High Efficiency Washing Machine Rebate Program	Rebates available through energy company.	Partially Implemented
DMM 7 - Public Information Programs	City distributes information regularly.	Implemented
DMM 8 - School Education Programs	City distributes information and offers WTP tours to schools.	Implemented
DMM 9 - Conservation Programs for Commercial, Industrial, and Institutional Accounts	Industrial use surveys and distribute conservation materials	Implemented
DMM 10 - Wholesale Agency Programs	City does not wholesale water	Not Applicable
DMM 11 - Conservation Pricing	Flow charge above base charge allowance based on meter size.	Implemented
DMM 12 - Water Conservation Coordinator	WTP Supervisor and Chief Plant Operator perform water conservation coordinator duties	Implemented
DMM 13 - Water Waste Prohibition	Ordinance and waste reporting system	Implemented
DMM 14 - Residential Ultra-Low Flush Toilet Replacement Program	Pursuing grant funding	Not Implemented

The City's previous Urban Water Management Plan (2005 Plan) provided information regarding the City's conservation measures already in place and those that would improve the efficiency of water use within the City.

In addition to the City's building code that requires water conservation measures on all new construction, the City adopted the Green Building Standards Code, also known as CalGreen that requires all new buildings to be more energy efficient and environmentally responsible. The Code has both residential and non-residential water efficiency and conservation components. CalGreen will require that every newly constructed building in California reduce water consumption by 20 percent.

The residential portion of the code applies to newly constructed, low-rise residential structures, three stories or less (hotels, motels, lodging houses, apartment houses, condominiums, family dwellings, townhomes, factory-built housing, dormitories, shelters for homeless persons, congregate residences, employee housing, other types of dwellings containing sleeping accommodations, and accessory buildings, facilities, and uses related to the above residential uses). Remodels and existing homes are not required to follow the building code. The residential plumbing portion takes effect July 1, 2011.

The non-residential portion of the code applies to state-owned buildings, state university and community college buildings, and privately owned buildings used for retail, office, and medical services. It also requires separate water meters for nonresidential buildings' indoor and outdoor water use. The non-residential plumbing portion takes effect January 1, 2011.

6.2 DMM 1: WATER SURVEY PROGRAMS FOR SINGLE FAMILY AND MULTI-FAMILY RESIDENTIAL CUSTOMERS

This program consists of offering water audits to single-family and multi-family residential customers. Audits include reviewing water usage history with the customer, identifying leaks inside and outside the home, and recommending improvements.

The City has maintained an active water metering program for the last several years, with installation of meters on all customers completed in July 2010. One important component of the metering system is that it allows usage information to be collected by the City and customers. Customers are billed in hundred cubic feet of water used in a billing cycle. Each bill shows the usage/consumption for current month and usage/consumption used during the same period for the previous year. Customers have found this information useful and understandable.

This information allows individual customers to track water usage and potentially try to conserve water. Water conservation information is provided to every customer who makes a call related to his or her water usage. City employees will visit any home to assess water usage, determine if there are leaks, and to provide educational information. Irrigation

methods, timing clocks, and other methods to conserve water outdoors are reviewed with customers. Customers are instructed on methods to determine if a toilet is leaking water.

All meters have leak detection alarms. This notifies City employees of customers who have had continuous flow of more than 0.25 gallons per minute in a 24-hour period. These City employees in turn, notify each customer through door hangers of a possible leak in their plumbing.

Wherever feasible, irrigation meters have been installed. This allows customers with significant irrigation usage to manage water consumption.

The current billing system can prepare reports of the largest water users by meter size. Currently, the City provides audit information to the top five percent of the water users by meter size. The intent of this program is to concentrate on residential water users, provide educational information, and audits if requested. The program has been effective in targeting the top water users.

The City conducted targeted outreach to the top five percent of industrial water users and focused on reducing their water demand by five percent.

As the City customers review metered billing in the following years, it is likely this service will be requested by more customers.

Implementation Schedule:

Water Survey Programs: implemented by customer interest. It is assumed more requests for surveys will occur in the future since the City became fully metered in July 2010. The City advertises that customers can request a water survey via bill inserts.

Methods to Evaluate Effectiveness:

The best way to evaluate the effectiveness of implemented water surveys is periodic review of customer water use that has received surveys.

Conservation Savings:

Because it is up to the individual customer to implement survey recommendations, savings are difficult to quantify.

6.3 DMM 2: RESIDENTIAL PLUMBING RETROFIT

This program consists of installing physical devices to reduce the amount of water used or to limit the amount of water that can be served to the customer. In accordance with State law, low-flow fixtures have been required on all new construction since 1978. In addition, State legislation enacted in 1990 requires all new buildings after January 1, 1992 to install Ultra-Low-Flush Toilets (ULFT).

At least once per year, water bill inserts are used to educate customers about where and how water is used in a typical residential household. The benefits of low flow showerheads, aerators, and toilets are demonstrated. Information is also provided at all public events at which the Public Works Department participates (refer to the Water Conservation Implementation Plan Appendix C). As part of the Water Conservation Implementation plan the City plans to distribute 600 water conservation resource kits that include a high-efficiency shower head, kitchen aerator, two bathroom aerators, toilet tank bank, spray nozzle, and other conservation items and educational materials. Distribution of water conservation materials is also part of DMM 8 (School Education).

To date, no data is available to determine how outreach and educational materials have reduced water usage. The City will explore the use of a customer survey to assess how customers have changed their daily habits based on outreach materials distributed through bill inserts and at community events. The City will continue to provide educational information to customers.

During fiscal year 08/09 the City applied for grant funding for a residential plumbing retrofit program, but was unsuccessful in receiving funding. The City will try to secure grant funds in the future.

As the City becomes metered with commodity rates, residents of older homes may install low-flow fixtures voluntarily.

Implementation Schedule:

New Construction and CalGreen Requirements: Ongoing.

Retrofit of Older Homes: To be determined after pursuing grant funding.

Distribution of Water Conservation Resource Kits: Part of 2011 Water Conservation Implementation Plan.

Methods to Evaluate Effectiveness:

The effectiveness of this DMM is based upon the percentage of customers that install low-flow fixtures.

Conservation Savings:

Because it is up to the individual customer to implement retrofit of low-flow fixtures, savings are difficult to quantify. It is estimated that water use savings resulting from miscellaneous interior retrofit fixtures can range between 25 and 65 gpcd per housing unit. Installation of retrofit fixtures in older single-family homes tends to produce more savings, while newer multi-family homes tend to produce fewer saving per housing unit.

6.4 DMM 3: SYSTEM WATER AUDITS, LEAK DETECTION AND REPAIR

The City is responsive 24 hours a day in dealing with water distribution leaks. When requested, City maintenance crews can detect and repair waterline breaks.

The City maintains an active leak repair program. The goal is to repair all leaks upon detection within three days. Leak repairs are tracked and once it has been determined that there have been a significant number of leaks on the same water line, it is scheduled for replacement and placed on the Capital Improvement Program list.

In addition, the City conducts an annual system water audit to determine the difference between water production and sales to identify the quantity of water that is unaccounted for. The City has an on-going meter calibration and replacement program as well. The City is evaluating the benefit of implementing a system wide leak detection program to utilize when the water audit determines losses to be greater than 10 percent. The Water Treatment Plant utilizes a Supervisory Control and Data Acquisition (SCADA) system that allows operators to rapidly detect significant pressure drops and other signals that may indicate line breaks or leaks.

The City considers the ongoing efforts to detect and repair leaks as a maintenance activity that will be reoccurring every year due to the age of the City's distribution system. It is estimated that the current program is eliminating additional annual losses due to leaks, thus, providing a status quo maintenance operation that will not show any appreciable water savings. The City will continue this program on an annual basis.

Implementation Schedule:

Water Pipeline Replacement Program: On-going.

System Water Audits: On-going.

Leak Detection and Repair: On-going.

Methods to Evaluate Effectiveness:

The best way to evaluate the effectiveness of this program is to compare water production data with water consumption from the City's customers.

Conservation Savings:

Assuming a minimum of two to three percent reduction of the annual water production, the savings at 2035 buildout would be approximately 832 AFY.

6.5 DMM 4: METERING WITH COMMODITY RATES FOR ALL NEW CONNECTIONS AND RETROFIT OF EXISTING CONNECTIONS

This DMM requires that water meters be installed for all new connections to allow billing by volume of use. This program also applies to retrofitting any existing unmetered connections.

Installing water meters and billing for actual water use provides a strong incentive for customers to use less water and equalizes service cost for each customer to their actual use (high water users would pay a more equitable share of the system costs). Water metering can reduce exterior landscape water use and can also achieve a modest reduction in interior water use.

Meters have been installed on all City connections as of July 2010. The City water rate structure requires a base/fixed monthly charge dependent on the meter size and a per hundred cubic feet charge for water usage over the allowance included in the base charge.

At its discretion, the City also requires irrigation meters. The minimum charge rate does not apply to irrigation meters. The irrigation meters allow customers to best monitor and conserve water used for irrigation. In the event of water shortages, these meters will be utilized for monitoring water allocations.

At its discretion, the City requires the use of compound meters for commercial and industrial accounts. These meters can best capture water usage at both high and low flow conditions.

Implementation Schedule:

All connections within the City metered as of July 2010.

Billing at Commodity Rates for metered customers: On-going.

Meter Installation for New Connections: On-going.

Methods to Evaluate Effectiveness

The best way to evaluate the effectiveness of metering is periodic review of customer water use. Additionally, current water use per capita can be compared with historic data (before and after commodity rates are established).

Conservation Savings:

Historically, the City has seen between 10 to 20 percent reduction in water usage when an unmetered customer is converted to metering on an average annual basis.

6.6 DMM 5: LARGE LANDSCAPE CONSERVATION PROGRAMS AND INCENTIVES

This program would consist of assigning reference Evapotranspiration (ET_o)-based water budgets to accounts with dedicated irrigation meters and to provide water-use audits to accounts with mixed-use meters.

The City installed a test system at a park that automatically adjusts irrigation schedules based on weather conditions. New parks constructed within the city sphere of influence will utilize similar systems.

Irrigation meters have been installed on all accounts that have a significant irrigation requirement. Customers use these meters to monitor usage and to ensure that water is being used in the most efficient manner possible.

All new landscape areas for commercial, industrial, institutional, governmental, and apartment developments require installation of dedicated landscape metering. This metering system allows property owners to manage their water usage related to landscape usage. This meter is billed separately from the domestic use meter and is excluded from the minimum billing criteria.

The City has approximately 380 large landscape accounts all equipped with meters (2010 DWR Public Water System Statistics). The City will target these users to reduce their demand by 5 percent through outreach and volunteer surveys.

Implementation Schedule:

Water-Efficient Landscape Requirements: On-going.

SCADA Control of Landscape Irrigation: On-going.

Methods to Evaluate Effectiveness:

The City can monitor changes in water use for metered customers to evaluate effectiveness. No data was collected before the unmetered large landscape users were metered thus there is no historical data to determine exactly how much water was conserved.

Conservation Savings:

Savings have not been determined.

6.7 DMM 6: HIGH-EFFICIENCY WASHING MACHINE REBATE PROGRAMS

Typically, a high-efficiency washing machine rebate program would offer a \$35 to \$125 rebate to qualifying customers who install them in their home. Pacific Gas and Electric (PG&E) is an energy service provider for the area and offers rebates for high-efficiency washing machines. For PG&E customers, the washer rebate is \$50 per installation if the high-efficiency washing machine meets PG&E's requirements (Consortium for Energy Efficient Tier 2 model or higher, Modified Energy Factor 2.2 or greater, and Water Factor of 4.5 or less).

The City's website has a link to California's Water Conservation Resource - Save Our Water website through the Public Works Utilities Division Water Conservation. On the Save Our Water website, customers can search for rebates. Applications for PG&E rebates can be accessed through the website or directly through the PG&E website.

Methods to Evaluate Effectiveness:

The City can review changes in water use for customers that have installed high-efficiency washers provided the information is available from PG&E.

Conservation Savings:

Savings is hard to determine at this time. The City website lists that an old washing machine uses 40 gallons per load and a high-efficiency washing machine uses 25 gallons per load.

Implementation Schedule:

High-Efficiency Washing Machine Rebate Program: Currently available through PG&E.

Methods to Improve Effectiveness:

Notifying customers of the PG&E rebates as a method of increasing the number of water efficient washing machines could improve water conservation within the City. Additionally the City could pursue funding to expand the rebate program.

6.8 DMM 7: PUBLIC INFORMATION PROGRAMS

This program consists of distributing information to the public through a variety of methods including brochures included with utility bills, press releases via radio and newspaper, school curriculum, educational flyers, demonstration gardens, water conservation suggestions and videos on its webpage, and providing economical water conservation kits.

Water conservation information is provided approximately three times per year with monthly bills. The information includes methods to conserve, demands of various activities and

appliances, water treatment information, and source water protection. The Public Works Department provides information and educational information at several public events including multi-cultural festivals, health fairs, county fair, and other public events. At these events, information related to landscape water use is available. These brochures discuss water requirements of various plantings, time of day irrigation scheduling, advantages of automatic irrigation control, and other information. Information is also included in water bill inserts.

The Public Works Department has a direct link to the City's web site. The purpose of the web site is to provide information related to water treatment, water quality, and water conservation. A portion of the site includes conservation tips for both indoor and outdoor water usage.

Implementation Schedule:

Distribution of Brochures and Other Literature: On-going.

Methods to Evaluate Effectiveness:

The effectiveness of this program is determined by the amount of information available to the community and how the community chooses to utilize the information. To evaluate the information, the City could track the number of brochures distributed, special events attended, and other activities pursued to promote water conservation. The City could also track customer response and any commentary regarding the information provided.

Conservation Savings:

The City has committed to its public information program as an ongoing effort. However, it is not possible to directly quantify the associated water conservation savings. The City believes that this program is beneficial and necessary to implement other DMMs effectively.

6.9 DMM 8: SCHOOL EDUCATION PROGRAMS

This DMM requires water suppliers to implement a school education program that includes providing educational materials and instructional assistance.

The City has purchased age appropriate water conservation educational information that can be provided to children. The primary distribution methods are water treatment plant tours and at public events. City staff participates in an annual Children's Health and Safety Fair where they distribute water conservation materials to local fourth grade students. The water plant is toured several times per year by primary, high school, and college classes. The purposes of these tours are to provide information related to water source, source protection, water treatment, distribution system, and water conservation.

The Yuba City Unified School District (YCUSD) and the City conduct coordination meetings on a regular basis. The City Manager, City Council members, YCUSD Board members,

YCUSD Superintendent, and various staff members attend these meetings. The purpose of these meetings is to coordinate activities of the two organizations. Educational opportunities are always discussed.

Implementation Schedule:

School Education Programs: On-going.

Methods to Evaluate Effectiveness:

The effectiveness of this program is determined by the number of students and schools that participate and how the students choose to utilize the information. To evaluate the effectiveness, the city can track the number of presentation and tours given, curriculum materials provided, and students that participated. The City can also survey the institutions and educators that participate in the program on the number of programs and materials available and recommendations for improvements.

Conservation Savings:

The City has committed to its school education program as an ongoing effort. However, it is not possible to directly quantify the associated water conservation savings. The City believes that this program is beneficial to the community and important to the long-term success of the overall water conservation program effort.

6.10 DMM 9: CONSERVATION PROGRAMS FOR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL ACCOUNTS

This program would typically consist of ULFT replacements in commercial, institutional, and industrial (CII) facilities and either surveys of water use for CII accounts or performance targets for CII accounts. Additional CII related conservation programs may involve turf fields, smart irrigation timers, and industrial process water use reductions.

All industrial and commercial water customers are metered. The billing structure promotes self-monitoring and water conservation. Industrial customers are inspected on an annual basis as part of the wastewater pretreatment program. During this inspection, water conservation and possibility of reducing water demand is discussed. This reduction benefits both the water and wastewater organizations.

Commercial customers are billed based on water consumption and sewage bills are based on water usage. Commercial customers self-monitor in order to reduce their monthly water and sewage bills. Currently, there is not an active program to inspect commercial businesses for water conservation issues.

All new industrial and commercial customers pay an initial water and sewer connection fee. The water connection is based on the meter size and anticipated water usage. The City

Ordinance clearly defines how these calculations are made. An additional connection fee is administered on all customers that use more than five percent of meter capacity. Minimum monthly fee is based on meter size. This combination of charges ensures that conservation takes place and that customers are not allowed to install meters that are too large for their business.

The sewage connection fee is based on plumbing fixtures as defined in the Uniform Plumbing Code. During plan review, the City Community Development Building Department determines the number of plumbing fixtures and calculates the sewage connection fee. The Department also ensures that the most water efficient methods are utilized within a new commercial enterprise.

The City's Building Code requires that all new construction install low-flow fixtures, including low-flow faucets and toilets. This requirement includes commercial and industrial facilities. As mentioned previously the City adopted CalGreen requirements, which applies to state-owned buildings, state university and community college buildings, and privately owned buildings used for retail, office, and medical services.

As stated above currently there is not an active program to inspect commercial businesses for water conservation issues. However, as stated above, Industrial customers are inspected on an annual basis as part of the wastewater pretreatment program. During this inspection, water conservation materials are distributed and water saving tips are discussed. The City mails the same information to the commercial users.

The City works directly with the government agencies to determine how to reduce their water demand by at least 5 percent.

Implementation Schedule:

Industrial water use surveys: On-going.

Distribution of conservation materials to users: On-going.

Requirements for Low-Flow Fixtures: On-going.

Methods to Evaluate Effectiveness:

The programs in place for this DMM are difficult to evaluate. The best way to determine the effectiveness of this DMM is to monitor the actual water use. The City can monitor the water use of the commercial and industrial customers, and assess demand characteristics and water use patterns. Historic data can be compared to current average annual water use for each account type.

Conservation Savings:

Currently there is no historical data to determine the water savings realized from the above activities. The actual savings for this DMM will vary, however the City believes that this program is beneficial and necessary to implement other DMMs effectively.

6.11 DMM 10: WHOLESALE AGENCY PROGRAMS

This DMM applies to wholesale agencies and defines a wholesaler's role in terms of financial, technical, and programmatic assistance to its retail agencies implementing DMMs.

The City is not a wholesale agency, so this DMM does not apply.

6.12 DMM 11: CONSERVATION PRICING

Water conservation is encouraged through a pricing system that rewards customers who use less water with financial incentives, while high water users are charged a higher rate. Often this is implemented through a tiered pricing system.

The City water rate structure requires a base/fixed monthly charge dependent on the meter size and a per hundred cubic feet charge for water usage over the allowance included in the base charge. This rate structure encourages conservation, since all water used above the baseline amount is charged to the customer.

The rates support both operating and anticipated capital needs. Customers pay their proportional share of operating and maintenance costs. The rate includes provisions for replacement of system facilities. The City Rate Ordinance includes future annual rate adjustments. These adjustments will be implemented every year. The purpose of these adjustments is to cover inflation and some future capital projects.

Implementation Schedule:

The City is currently revising water rates to support needed improvements to the water system infrastructure.

Methods to Evaluate Effectiveness:

The best way to evaluate the effectiveness of conservation pricing is periodic review of customer water use.

Conservation Savings:

Water savings due to conservation pricing is difficult to determine.

6.13 DMM 12: WATER CONSERVATION COORDINATOR

The Water Plant Supervisor and Chief Plant Operator currently perform activities of a water conservation coordinator. The following are the activities performed by the Water Treatment Plant Supervisor and Chief Plant Operator:

- Coordinate updates and changes to the City's website concerning water conservation programs.
- Coordinates development and budgeting of water conservation program.
- Coordinates any changes to current water ordinances related to water conservation programs or authority.
- Determines cost effectiveness of any proposed water conservation program before implementation.
- Serves as initial contact concerning any outreach with the public including residents, commercial, industrial, government, and large landscape users.
- Responsible for development of any customer surveys and responding to customers inquiries related to water conservation.
- Responsible for coordinating audits, metering, and leak detection and repair programs.
- Responsible to keeping management and City Council apprised of all conservation efforts, current and proposed.

Implementation Schedule:

Water Conservation Coordinator Activities: On-going.

Methods to Evaluate Effectiveness:

The effectiveness of this DMM is determined by the work performed. The City can set up performance standards and goals.

Conservation Savings:

Water savings due to water conservation coordinator activities cannot be determined.

6.14 DMM 13: WATER WASTE PROHIBITIONS

The existing Water Ordinance prohibits waste of water and allows the City to discontinue service if such conditions are not corrected.

All new business plans are reviewed to ensure that water conservation measures have been implemented. The existing Ordinance does not specifically identify business practices

that must be implemented, but staff would only permit high water using businesses such as carwashes that utilize the best available technology.

The City water, drawn out of the Feather River, is naturally soft and there is not a need for residential water softeners. Water bill inserts have provided educational information related to water quality. Information has been provided specifically related to water softeners and state that the devices are not recommended. Customers have been notified that if water softeners are utilized, it can result in increased lead and copper concentration in their water due to corrosion of household piping.

In addition, an electronic reporting mechanism (COMCATE) has been implemented on the Cities website for residents to report water waste. This allows residents to do so anonymously. Reports are sent directly to the Public Works Department for staff follow up. Staff's first response is to reach out to those customers with water conservation outreach materials. The existing Water Ordinance prohibits waste of water and allows the City to discontinue service if such conditions are not corrected. The COMCATE system has the ability to track the frequency of these types of reports.

Implementation Schedule:

Water waste prohibitions: On-going.

Methods to Evaluate Effectiveness:

The effectiveness of this DMM can be determined by a decrease in violators. The effectiveness of the electronic reporting system can be evaluated through analysis of historical data.

Conservation Savings:

Water savings cannot be determined, but the City believes that this program is necessary to curtail flagrant water waste situations.

6.15 DMM 14: RESIDENTIAL ULTRA-LOW FLUSH TOILET REPLACEMENT PROGRAMS

This program would provide incentives or ordinances requiring the replacement of existing toilets with ULFTs. State legislation requires the installation of efficient plumbing in new construction and, effective in 1994, requires that only ULFTs be sold in California.

The City's Building Code and CalGreen require that all new residential construction install low flow fixtures, including low flow toilets. As the City grows, the percent of ultra-low flush toilets will grow accordingly.

The City has not implemented a replacement program for non-low flow to ultra-low-flow toilets. The City applied for grant funding to implement a replacement program for non-low

flow toilets, but was unsuccessful in receiving funding. The City will try to secure grant funds in the future.

Cost/Benefit Analysis:

The City has determined that it is not cost effective to implement a program without grant funds considering the current cost of operations, maintenance, and water supply. The cost of operations and maintenance will not be reduced by the minor incremental reduction in water demand considering the distribution and treatment plant capacity is fixed. The current cost of water supply ranges from \$55.00 to \$48.81 dollars per acre-foot for the NYWD and SWP water supply contracts. If rebates were given at \$100/toilet the cost would be \$5,000 for 50 residential rebates, not including costs for implementation of the rebate program (this information is based on EPA's estimate of saving 4 gallons per flush with ULFTs). Based on this information the estimated savings would be 2.68 AF/yr.

Funding:

The City will also pursue grants to implement a rebate program for ULFTs.

Legal Authority:

The City has the legal authority to implement this DMM.

Implementation Schedule:

Implementation schedule to be determined.

CLIMATE CHANGE

The potential water supply and demand effects related to climate change have not been included in this Urban Water Management Plan.

COMPLETED UWMP CHECKLIST

A completed Urban Water Management Plan checklist is attached.

Table I-2 Urban Water Management Plan checklist, organized by subject

No.	UWMP requirement ^a	Calif. Water Code reference	Additional clarification	UWMP location
PLAN PREPARATION				
4	Coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	10620(d)(2)		Chapter 1 Section 1.3 Page 1-3
6	Notify, at least 60 days prior to the public hearing on the plan required by Section 10642, any city or county within which the supplier provides water that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. Any city or county receiving the notice may be consulted and provide comments.	10621(b)		Chapter 1 Section 1.3 Page 1-4 Appendix A
7	Provide supporting documentation that the UWMP or any amendments to, or changes in, have been adopted as described in Section 10640 et seq.	10621(c)		Appendix B
54	Provide supporting documentation that the urban water management plan has been or will be provided to any city or county within which it provides water, no later than 60 days after the submission of this urban water management plan.	10635(b)		Chapter 1 Section 1.3 Page 1-5 Appendix A
55	Provide supporting documentation that the water supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan.	10642		Chapter 1 Section 1.3 Page 1-5 Appendix A
56	Provide supporting documentation that the urban water supplier made the plan available for public inspection and held a public hearing about the plan. For public agencies, the hearing notice is to be provided pursuant to Section 6066 of the Government Code. The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water. Privately-owned water suppliers shall provide an equivalent notice within its service area.	10642		Appendix A
57	Provide supporting documentation that the plan has been adopted as prepared or modified.	10642		Appendix B
58	Provide supporting documentation as to how the water supplier plans to implement its plan.	10643		Chapter 1, Pg 1-5 Chapter 3, Pg 3-14 Chapter 6

No.	UWMP requirement ^a	Calif. Water Code reference	Additional clarification	UWMP location
59	Provide supporting documentation that, in addition to submittal to DWR, the urban water supplier has submitted this UWMP to the California State Library and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption. This also includes amendments or changes.	10644(a)		Chapter 1 Section 1.3 Page 1-5 Appendix A
60	Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the urban water supplier has or will make the plan available for public review during normal business hours	10645		Chapter 1 Section 1.3 Page 1-5 Appendix A
SYSTEM DESCRIPTION				
8	Describe the water supplier service area.	10631(a)		Chapter 2 Section 2.1 Page 2-1 Figure 1
9	Describe the climate and other demographic factors of the service area of the supplier	10631(a)		Chapter 2 Section 2.1 Pages 2-3 and 2-5
10	Indicate the current population of the service area	10631(a)	Provide the most recent population data possible. Use the method described in "Baseline Daily Per Capita Water Use." See Section M.	Chapter 2 Section 2.2 Page 2-5 Table 3
11	Provide population projections for 2015, 2020, 2025, and 2030, based on data from State, regional, or local service area population projections.	10631(a)	2035 and 2040 can also be provided to support consistency with Water Supply Assessments and Written Verification of Water Supply documents.	Chapter 2 Section 2.2 Page 2-5 Table 3
12	Describe other demographic factors affecting the supplier's water management planning.	10631(a)		Chapter 2 Section 2.2 Page 2-5

No.	UWMP requirement ^a	Calif. Water Code reference	Additional clarification	UWMP location
SYSTEM DEMANDS				
1	Provide baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.	10608.20(e)		Chapter 3 Sections 3.1 & 3.2
2	<i>Wholesalers</i> : Include an assessment of present and proposed future measures, programs, and policies to help achieve the water use reductions. <i>Retailers</i> : Conduct at least one public hearing that includes general discussion of the urban retail water supplier's implementation plan for complying with the Water Conservation Bill of 2009.	10608.36 10608.26(a)	Retailers and wholesalers have slightly different requirements	Not Applicable
3	Report progress in meeting urban water use targets using the standardized form.	10608.40		Not Applicable Until 2015
25	Quantify past, current, and projected water use, identifying the uses among water use sectors, for the following: (A) single-family residential, (B) multifamily, (C) commercial, (D) industrial, (E) institutional and governmental, (F) landscape, (G) sales to other agencies, (H) saline water intrusion barriers, groundwater recharge, conjunctive use, and (I) agriculture.	10631(e)(1)	Consider 'past' to be 2005, present to be 2010, and projected to be 2015, 2020, 2025, and 2030. Provide numbers for each category for each of these years.	Chapter 3 Section 3.3 Tables 8-15
33	Provide documentation that either the retail agency provided the wholesale agency with water use projections for at least 20 years, if the UWMP agency is a retail agency, OR, if a wholesale agency, it provided its urban retail customers with future planned and existing water source available to it from the wholesale agency during the required water-year types	10631(k)	Average year, single dry year, multiple dry years for 2015, 2020, 2025, and 2030.	Chapter 3 Section 3.3 Table 15
34	Include projected water use for single-family and multifamily residential housing needed for lower income households, as identified in the housing element of any city, county, or city and county in the service area of the supplier.	10631.1(a)		Chapter 3 Section 3.3 Page 3-13
SYSTEM SUPPLIES				
13	Identify and quantify the existing and planned sources of water available for 2015, 2020, 2025, and 2030.	10631(b)	The 'existing' water sources should be for the same year as the "current population" in line 10. 2035 and 2040 can also be provided.	Chapter 4 Section 4.1 Table 17

No.	UWMP requirement ^a	Calif. Water Code reference	Additional clarification	UWMP location
14	Indicate whether groundwater is an existing or planned source of water available to the supplier. If yes, then complete 15 through 21 of the UWMP Checklist. If no, then indicate "not applicable" in lines 15 through 21 under the UWMP location column.	10631(b)	Source classifications are: surface water, groundwater, recycled water, storm water, desalinated sea water, desalinated brackish groundwater, and other.	Chapter 4 Section 4.2 Pages 4-5 & 4-6
15	Indicate whether a groundwater management plan been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	10631(b)(1)		Chapter 4 Section 4.2
16	Describe the groundwater basin.	10631(b)(2)		Chapter 4 Section 4.2
17	Indicate whether the groundwater basin is adjudicated? Include a copy of the court order or decree.	10631(b)(2)		Not Applicable
18	Describe the amount of groundwater the urban water supplier has the legal right to pump under the order or decree. If the basin is not adjudicated, indicate "not applicable" in the UWMP location column.	10631(b)(2)		Not Applicable
19	For groundwater basins that are not adjudicated, provide information as to whether DWR has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to eliminate the long-term overdraft condition. If the basin is adjudicated, indicate "not applicable" in the UWMP location column.	10631(b)(2)		Not Applicable
20	Provide a detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years	10631(b)(3)		Not Applicable
21	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	10631(b)(4)	Provide projections for 2015, 2020, 2025, and 2030.	Not Applicable
24	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	10631(d)		Chapter 4 Section 4.3 Page 4-6

No.	UWMP requirement ^a	Calif. Water Code reference	Additional clarification	UWMP location
30	Include a detailed description of all water supply projects and programs that may be undertaken by the water supplier to address water supply reliability in average, single-dry, and multiple-dry years, excluding demand management programs addressed in (f)(1). Include specific projects, describe water supply impacts, and provide a timeline for each project.	10631(h)		Chapter 4 Section 4.6 Page 4-10 Table 21
31	Describe desalinated water project opportunities for long-term supply, including, but not limited to, ocean water, brackish water, and groundwater.	10631(i)		Chapter 4 Section 4.4 Page 4-6
44	Provide information on recycled water and its potential for use as a water source in the service area of the urban water supplier. Coordinate with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area.	10633		Chapter 4 Section 4.5 Pages 4-7 to 4-9
45	Describe the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.	10633(a)		Chapter 4 Section 4.5 Page 4-7
46	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	10633(b)		Chapter 4 Section 4.5 Tables 18 & 19
47	Describe the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.	10633(c)		Chapter 4 Section 4.5 Table 20
48	Describe and quantify the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, indirect potable reuse, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.	10633(d)		Chapter 4 Section 4.5 Page 4-9
49	The projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected.	10633(e)		Chapter 4 Section 4.5 Page 4-9
50	Describe the actions, including financial incentives, which may be taken to encourage the use of recycled water, and the projected results of these actions in terms of acre-feet of recycled water used per year.	10633(f)		Chapter 4 Section 4.5 Page 4-9

No.	UWMP requirement ^a	Calif. Water Code reference	Additional clarification	UWMP location
51	Provide a plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.	10633(g)		Chapter 4 Section 4.5 Page 4-9
WATER SHORTAGE RELIABILITY AND WATER SHORTAGE CONTINGENCY PLANNING ^b				
5	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	10620(f)		Chapter 5 Section 5.3 Chapter 6
22	Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage and provide data for (A) an average water year, (B) a single dry water year, and (C) multiple dry water years.	10631(c)(1)		Chapter 5 Section 5.1 Pages 5-1 to 5-3 Table 22
23	For any water source that may not be available at a consistent level of use - given specific legal, environmental, water quality, or climatic factors - describe plans to supplement or replace that source with alternative sources or water demand management measures, to the extent practicable.	10631(c)(2)		Chapter 5 Section 5.1 Page 5-2
35	Provide an urban water shortage contingency analysis that specifies stages of action, including up to a 50-percent water supply reduction, and an outline of specific water supply conditions at each stage	10632(a)		Chapter 5 Section 5.3 Pages 5-7 to 5-8 Table 23
36	Provide an estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency's water supply.	10632(b)		Chapter 5 Section 5.4 Pages 5-14 to 5-15
37	Identify actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including, but not limited to, a regional power outage, an earthquake, or other disaster.	10632(c)		Chapter 5 Section 5.3 Pages 5-4 to 5-6
38	Identify additional, mandatory prohibitions against specific water use practices during water shortages, including, but not limited to, prohibiting the use of potable water for street cleaning.	10632(d)		Chapter 5 Section 5.3 Table 24

No.	UWMP requirement ^a	Calif. Water Code reference	Additional clarification	UWMP location
39	Specify consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.	10632(e)		Chapter 5 Section 5.3 Table 25
40	Indicated penalties or charges for excessive use, where applicable.	10632(f)		Chapter 5 Section 5.3 Table 26
41	Provide an analysis of the impacts of each of the actions and conditions described in subdivisions (a) to (f), inclusive, on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments.	10632(g)		Chapter 5 Section 5.3 Pages 5-10 to 5-11
42	Provide a draft water shortage contingency resolution or ordinance.	10632(h)		Chapter 5 Section 5.3 Pages 5-6 to 5-7 Appendix E
43	Indicate a mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.	10632(i)		Chapter 5 Section 5.3 Pages 5-8 to 5-10
52	Provide information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments, and the manner in which water quality affects water management strategies and supply reliability	10634	For years 2010, 2015, 2020, 2025, and 2030	Chapter 5 Section 5.2 Pages 5-3 to 5-4
53	Assess the water supply reliability during normal, dry, and multiple dry water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and multiple dry water years. Base the assessment on the information compiled under Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.	10635(a)		Chapter 5 Section 5.4 Pages 5-11 to 5-18 Tables 27 to 32

No.	UWMP requirement ^a	Calif. Water Code reference	Additional clarification	UWMP location
DEMAND MANAGEMENT MEASURES				
26	Describe how each water demand management measures is being implemented or scheduled for implementation. Use the list provided.	10631(f)(1)	Discuss each DMM, even if it is not currently or planned for implementation. Provide any appropriate schedules.	Chapter 6 Table 33
27	Describe the methods the supplier uses to evaluate the effectiveness of DMMs implemented or described in the UWMP.	10631(f)(3)		Chapter 6
28	Provide an estimate, if available, of existing conservation savings on water use within the supplier's service area, and the effect of the savings on the ability to further reduce demand.	10631(f)(4)		Chapter 6
29	Evaluate each water demand management measure that is not currently being implemented or scheduled for implementation. The evaluation should include economic and non-economic factors, cost-benefit analysis, available funding, and the water suppliers' legal authority to implement the work.	10631(g)	See 10631(g) for additional wording.	Chapter 6
32	Include the annual reports submitted to meet the Section 6.2 requirements, if a member of the CUWCC and signer of the December 10, 2008 MOU.	10631(j)	Signers of the MOU that submit the annual reports are deemed compliant with Items 28 and 29.	Not Applicable

a The UWMP Requirement descriptions are general summaries of what is provided in the legislation. Urban water suppliers should review the exact legislative wording prior to submitting its UWMP.

b The Subject classification is provided for clarification only. It is aligned with the organization presented in Part I of this guidebook. A water supplier is free to address the UWMP Requirement anywhere with its UWMP, but is urged to provide clarification to DWR to facilitate review.

OUTREACH DOCUMENTS

**CITY
OF
YUBA CITY** PUBLIC WORKS DEPARTMENT

1201 CIVIC CENTER BOULEVARD, YUBA CITY, CA 95993 • (530) 822-4626 • FAX (530) 822-4694

March 22, 2011

Sutter County
1160 Civic Center Blvd, Suite A
Yuba City, CA 95993

Attention: Ms. Stephanie Larsen

Subject: **Notice of Preparation of the 2010 City of Yuba City Urban Water
Management Plan (UWMP)**

Dear Ms. Larsen:

Pursuant to the requirements of the California Water Code, Division 6, Part 2.6 Urban Water Management Planning, Section 10621 (b), every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days prior to the public hearing on the plan required by Section 10642, notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan.

This letter is intended to notify your agency that the City of Yuba City (City) is in process of preparing the 2010 UWMP. Based on the City's current schedule, we expect to have a public review draft of the 2010 UWMP available for review in May 2011, at which point your agency will receive a notification letter that the draft UWMP is available for public review.

If your agency would like to submit comments or provide input to the City in anticipation of the development of the 2010 UWMP, please submit written copies to:

Ian Pietz
Senior Engineer
City of Yuba City
1201 Civic Center Blvd.
Yuba City, CA 95993

Sincerely,

CITY OF YUBA CITY



Ian Pietz
Senior Engineer

Cc: George Musallam, City of Yuba City—Public Works Director
cc: Tommy Greci, Carollo Engineers, Inc.

City of Yuba City



NOTICE OF PUBLIC HEARING

2010 URBAN WATER MANAGEMENT PLAN

(A certified copy of the full text of this ordinance is posted in the office of the City Clerk)

NOTICE IS HEREBY GIVEN that at 7:00 p.m. on Tuesday, June 21, 2011 in the City Hall Council Chambers, 1201 Civic Center Blvd., Yuba City, California, the City Council of the City of Yuba City will hold a Public Hearing on the following:

Pursuant to the provisions of sections 10621 and 10642 of the California Water, the City of Yuba City has prepared its Final Draft 2010 Urban Water Management Plan and the City will hold a public hearing as a result of said preparation. The hearing will provide an opportunity for the City's customers, residents, and employees to learn and ask questions about the current and future water supply of the City. Final consideration, after public comment period, will be held on August 16, 2011.

A copy of the 2010 Urban Water Management Plan will be available for review after the Public Hearing from June 21, 2011 to July 29, 2011 at the City Hall, 1201 Civic Center Boulevard, or accessed and printed off the City's web site at <http://www.yubacity.net/utilities/urban-water-management-plan.htm>.

All interested parties are invited to attend the hearing to express their opinions. Written or verbal statements are requested by the close of business on July 29, 2011, but will be accepted at, or prior to, the close of the public hearing on August 16, 2011. For questions concerning the document, please contact Ian Pietz at 822-7685. Written statements should be mailed or hand-delivered to the City Clerk's office, 1201 Civic Center Blvd., Yuba City CA 95993.

The Council Chambers are accessible by wheelchair. If you require auxiliary aids or services (i.e., signing services) to make a presentation to the City Council, the City will be available to assist you. Please contact the City Clerk's office (530-822-4609; TDD 530-822-4732) at least 72 hours in advance so such aids or services can be arranged

Terrel Locke
City Clerk

City Clerk

1201 Civic Center Boulevard, Yuba City, CA 95993 - (530) 822-4609 FAX (530) 822-4805

NOTICE OF PUBLIC HEARING
2010 URBAN WATER MANAGEMENT PLAN

(A certified copy of the full text of this ordinance is posted in
the office of the City Clerk)

NOTICE IS HEREBY GIVEN that at 7:00 p.m. on Tuesday, June 21, 2011 in the City Hall Council Chambers, 1201 Civic Center Blvd., Yuba City, California, the City Council of the City of Yuba City will hold a Public Hearing on the following:

Pursuant to the provisions of sections 10621 and 10642 of the California Water Code, the City of Yuba City has prepared its Final Draft 2010 Urban Water Management Plan and the City will hold a public hearing as a result of said preparation. The hearing will provide an opportunity for the City's customers, residents, and employees to learn and ask questions about the current and future water supply of the City. Final consideration, after public comment period, will be held on August 16, 2011.

A copy of the 2010 Urban Water Management Plan will be available for review after the Public Hearing from June 21, 2011 to July 29, 2011 at the City Hall, 1201 Civic Center Boulevard, or accessed and printed off the City's web site at <http://www.yubacity.net/utilities/urban-water-management-plan.htm>.

All interested parties are invited to attend the hearing to express their opinions. Written or verbal statements are requested by the close of business on July 29, 2011, but will be accepted at, or prior to the close of the public hearing on August 16, 2011. For questions concerning the document, please contact Ian Pietz at 822-7685. Written statements should be mailed or hand-delivered to the City Clerk's office, 1201 Civic Center Blvd., Yuba City CA 95993.

The Council Chambers are accessible by wheelchair. If you require auxiliary aids or services (i.e., signing services) to make a presentation to the City Council, the City will be available to assist you. Please contact the City Clerk's office (530-822-4609; TDD 530-822-4732) at least 72 hours in advance so such aids or services can be arranged

Terrel Locke
City Clerk

June 10 & 16, 2011

Ad #00120674

CITY ADOPTION RESOLUTION

(To be included in Final UWMP)

WATER CONSERVATION IMPLEMENTATION PLAN

CITY OF YUBA CITY
STAFF REPORT

Date: February 15, 2011
To: Honorable Mayor & Members of the City Council
From: Public Works Department
Presentation By: Ashley Rico, Administrative Assistant

Summary

Subject: Water Conservation Program

Recommendation: Adopt a resolution accepting the Water Conservation Program and authorizing its implementation by the Public Works Department.

Fiscal Impact: \$50,000 from account 7120- 62761. This account was not set up during the budget cycle however, there are sufficient funds available within other material, supply and services accounts in the Water Fund and therefore no additional budget appropriations are being requested at this time.

Background:

In accordance with the City's Urban Water Management Plan (UWMP), mandated by the Department of Water Resources, a Water Conservation Plan must be implemented. Requirements for the UWMP were updated to include demand measures from the Senate Bill 7x7 (SB7x7) which requires all urban water suppliers to achieve a 20 percent reduction in per capita water use by 2020. Water suppliers will be required to report interim compliance in 2015 with an anticipation of a 10% reduction in per capita water use.

As the economy rebounds, the City's population will grow, and water demands will also increase. It is important for the City to be proactive in its commitment to maintaining a sustainable water supply and meeting the City's water demands. A commitment to more efficient and sustainable water use will help the City meet the challenges that growth will bring.

Water conservation is just one component of a more comprehensive solution of meeting the City's future water supplies and demands. Staff believes public outreach regarding water conservation will be the most critical and effective tool in promoting water conservation in Yuba City. Staff has examined various options for outreach and while all outreach options will not be viable for the City to employ, a comprehensive list of recommended implementation options has been outlined.

Analysis:

The Water Conservation Plan (WCP) will consist of a school education and outreach program as well as a community outreach program.

Staff recommends utilizing an existing school outreach/education program, called Water Wise, which was developed to provide water conservation outreach and education to elementary schools.

The WaterWise Program gauges the participant's knowledge prior to the teaching of conservation material and then reassesses the participant's knowledge after the content of the course has been completed. This will give the City quantifiable results of how/if the program is working. Teachers will facilitate in-class activities and distribute Resources Action Kits to their students. Each kit contains a low flow showerhead, faucet aerators, as well as other water saving devices. The City has coordinated with Yuba City Unified School District for implementation of this program into the 5th grade classes throughout the school district. This program will also be made available to private and home schools within Yuba City.

The City will also sponsor an annual Water Conservation Poster Contest. Eligible students will be able to submit original conservation themed artwork and the top candidates will be showcased at the local County Fair. The artwork will also be featured in City sponsored annual Water Conservation calendar. This calendar will also include dates of all City sponsored events.

The community outreach program will consist of offering voluntary water audits to customers seeking to identify leaks, determine how to read their water meter and how to use water more efficiently. Certified water conservation specialists would be available to answer questions, provide educational information on how to conserve water, as well as program irrigation timers. Water Conservation Resource Kits would be provided and would include (1) high-efficiency shower head, (1) kitchen aerator, (2) bathroom aerators, (1) toilet tank bank, (1) spray nozzle, other conservation items and educational materials. There are three certified water conservation specialists on staff at the Water Treatment Plant.

Twice per year the Public Works Department provides two mailings to residents. The mailings include an *At Your Service Brochure*, which highlights the water and sewer divisions of Public Works containing information regarding current projects and water conservation tips, and the annual *Consumer Confidence Report*, which provides relevant information about the City's drinking water and allows the Water Division of Public Works to highlight an important topic related to water.

The City also plans on hosting a booth with Water Conservation educational material at the annual County Fair.

To implement the Water Conservation Plan, the estimated annual costs are approximately \$50,000. This sum does not include staff labor (estimated 10hrs/ week), but only includes the hard costs of the listed items.

Fiscal Impact:

\$50,000 from account 7120- 62761. This account was not set up during the budget cycle however, there are sufficient funds available within other material, supply and services accounts in the Water Fund and therefore no additional budget appropriations are being requested at this time.

Public Works staff applied for WaterWise grant funding; however, the City was not awarded funds. Additionally, staff researched other potential funding opportunities and plans to pursue grant opportunities to support water conservation education in the future.

Alternatives:

1. Add or remove components from the Water Conservation Program.
2. Do not adopt the Water Conservation Program and provide staff direction.

Recommendation:

Adopt a resolution accepting the Water Conservation Program and authorizing its implementation by the Public Works Department.

Prepared By:

Submitted By:

Ashley Rico
Administrative Assistant

Steven R. Jepsen
City Manager

Reviewed By:

Department Head _____

Finance _____

City Attorney _____

Water Conservation Implementation Plan



City of Yuba City
Public Works Department
November 4, 2010

Introduction

The State of California is in its third consecutive dry year and the Governor has requested that residential water usage is reduced by 20% by the year 2020. Although the Public Works Department does not have immediate plans for mandatory water rationing, water conservation is vital. All Yuba City residents are encouraged to use water wisely and make reductions in water usage wherever possible.

In years past, Yuba City experienced increased water demands due to new development coupled with the need to replace low-quality groundwater systems that were purchased by the city. That rapid growth has since subsided, but as the economy rebounds, the City's population will grow, and water demand will also increase. It is important for the City to be proactive in its commitment to providing sustainable water sources and meeting demand needs. A commitment to more efficient and sustainable water use will help the City meet the challenges that growth will bring.

Although conservation is just one component of a more comprehensive solution that is necessary to overcome the state's water challenges, it is something everyone can do today and it is easier than one might expect. Little changes in daily habits can make a big difference.

Public outreach regarding water conservation will be the most critical and effective tool in promoting water conservation in Yuba City. Below are various public outreach options. While all of these outreach options will not be viable for the City to employ, a comprehensive list of options follows with a recommended priority of which options to implement.

School Education/Curriculum/Outreach Program

Resource Action Programs

500 (½ Yuba City's 5th grade population) – 5th grade students to participate in Waterwise Education supplied by Resource Action Programs.

How the program works:

- The Resource Action team contacts teachers within the sponsor's designated territory and enrolls them in the program.
 - The school district will coordinate with Principals to determine which school and classrooms participate each year. The program potentially may include different schools and/or teachers each year.
- Program materials are branded with the City's logo and shipped directly to participating teachers.
- Teachers facilitate in-class activities and distribute Resource Action Kits to all their students.
- Each student takes home a Resource Action Kit that contains educational materials, auditing tools and water efficient devices.
- Students and their parents conduct a simple in-home audit to determine how much water they're using and to identify any inefficiencies.
- Students work with their parents to remove old, inefficient fixtures. They replace these fixtures with the new resource efficient devices provided inside each kit.
- A second audit is performed by the students and their parents to calculate the resource savings produced by retrofitting activities.
- Audit information is collected and the participants are surveyed with a pre/post test to find out how much they learned by participating in the program.
- All collected data is compiled, analyzed and placed into a Program Summary Report that is given to the City. This report summarizes all of the program results including a breakdown of resource savings.

Project WET Training

Project WET (Water Education for Teachers) Training is provided by the California Water Environment Federation. The training is offered once per year in Northern California during Fall/Winter and would allow the City to access free educational material and resources to introduce into our local schools and the ability to train teachers in our community. It will also be available for use at any water conservation events or water conservation education the City offers as part of the water conservation plan.

Project WET's mission is to reach children, parents, teachers, and community members of the world with water education. This mission is achieved by publishing water resource material, providing training workshops and building a worldwide network of educators, water resource professionals and scientists.

Project WET teaches about water resources through hands-on, investigative, easy-to-use activities. Skills such as teamwork, decision-making and problem solving that students develop through these activities help prepare them for the water resource challenges.

Project WET would provide the City with hands-on activities, coupled with curriculum to explain the water cycle and importance of water resources that could be used in the classroom, at a school assembly or demonstrated at a local event (e.g. YS Fair).

Outreach/Events

Annual Children's Health and Safety Faire

Each year Sutter North Medical Foundation hosts the Children's Health and Safety Fair. Yearly, 500-800 3rd and 4th grade students participate in this event at no cost to the students or schools. Various community groups and organization participate in this educational event that provides students with education about health and safety issues such as drug and alcohol use, bike safety, recycling, exercising, and the importance of water conservation.

Yuba-Sutter County Fair

The Yuba-Sutter County Fair offers a unique opportunity to the City to reach adults and children alike with information regarding water conservation.

Poster Contest

Offer an annual poster contest to K4-8th grade students within City limits. This will highlight a water conservation message and allow local students to highlight their artwork in the community.

Calendar

Partnered with the annual poster contest, the calendar will include original artwork from the winners of the Poster Contest. The calendar will include community events, water conservation tips, and other relevant information.

Water Saving Tips Brochure/Mailing

- At Your Service Brochure- the At Your Service Brochure highlights the water and sewer divisions of Public Works. It includes information regarding current projects, water conservation tips,
- Consumer Confidence Report- Provides relevant information to residents drinking water and allows the Water Division of Public Works to highlight an important topic related to water.

Voluntary water audits

- Residential water audits would allow residents to have a free evaluation with a certified water conservation specialist to identify leaks, determine how to read their water meter and how to use water more efficiently. Water conservation specialists would be available to answer questions, provide educational information on how to conserve water, as well as program irrigation timers. Water Conservation Resource Kits would be provided and would include (1) high-efficiency shower head, (1) kitchen aerator, (2) bathroom aerators, (1) toilet tank bank, (1) spray nozzle, other conservation items and educational materials.

Tentative 2011 Water Conservation Implementation Schedule

February

5th grade education begins

At Your Service Brochure in Utility Bills

March

5th grade education continues

April

Water Conservation Poster Contest begins

May

Water Conservation Poster Contest continues

Annual Children's Health & Safety Faire

June

Water Conservation Poster Contest drawings due

Annual Consumer Confidence Reports in Utility Bills

July

Water Conservation Poster Contest judged & winners announced

Yuba-Sutter County Fair

 Showcase winning conservation posters

August

Yuba-Sutter County Fair

 Showcase winning conservation posters

September & October

Develop Water Conservation Calendar

November

Finalize/Print Water Conservation Calendar

December

Release of Water Conservation Calendar

<u>January</u>	<u>February</u>	<u>March</u>
	5 th grade education begins At Your Service Brochure	5 th grade education (continued)
<u>April</u>	<u>May</u>	<u>June</u>
Water Conservation Poster Contest begins	Water Conservation Poster Contest (continued) Annual Children's Health & Safety Faire	Water Conservation Poster Contest Due Annual Consumer Confidence Report
<u>July</u>	<u>August</u>	<u>September</u>
Water Conservation Poster Contest judged and winners announced Yuba-Sutter County Fair Showcase winner's posters	Yuba-Sutter County Fair (cont.) Showcase winner's posters	Develop Water Conservation 2012 Calendar
<u>October</u>	<u>November</u>	<u>December</u>
Develop Water Conservation 2012 Calendar	Finalize/Print Water Conservation 2012 Calendar	Release Water Conservation 2012 Calendar

Budget

To implement the prioritized list, the estimated annual costs are approximately \$50,000. This sum does not include staff labor (estimated 10hrs/ week), but only includes the hard costs of the listed items.

Proposed Water Conservation Budget

Item	Quantity	Total
<u>Conserver Water KIDs Activity Booklet</u>	300	\$375.00
<u>Discovering Drought KIDs Activity Booklet</u>	300	\$375.00
<u>Water Every Drop Counts KIDs Activity Booklet</u>	300	\$375.00
<u>WATERWISE via RAP- 5th Grade</u>	500	\$15,000.00
<u>Water for Tomorrow Publication Fall Edition</u>	16500	\$11,000.00
<u>Water for Tomorrow Publication Spring Edition</u>	16500	\$11,000.00
<u>Promotional Products</u>	Varies	\$2,250.00
Droplet Magnet- logo/city info		
Water Bottles		
Frisbey's		
Shower Timers		
Rain Gauges		
<u>Water Audits</u>		
Water EcoKit	200	\$2,700.00
Spray Nozzle	200	\$425.00
<u>Training</u>	Varies	\$1,500.00
<u>Project WET trainings events (for local teachers)</u>	Varies	\$1,000.00
<u>Calendar</u>	1000	\$4,000.00
TOTAL BUDGET		\$50,000.00

Grant Funding Opportunities

Public Works staff applied for WaterWise grant funding, however, was not awarded funds. In addition, staff researched other potential funding opportunities however there are currently none available.

There are yearly grants related to water use efficiency however application deadlines have passed. Staff continues to research funding opportunities to support water conservation education.

WATER RIGHTS PERMITS, CONTRACTS, AGREEMENTS

FINAL (05-20-10)

AMENDED AGREEMENT FOR SALE OF SURPLUS WATER

THIS AGREEMENT, is made and entered into by and between the North Yuba Water District, a county water district organized and existing under the laws of California, formerly called the “Yuba County Water District” and referred in this Agreement to as the “District,” and the City of Yuba City, an incorporated city organized and existing pursuant to the laws of California and referred to in this Agreement as the “City.”

RECITALS

A. The District holds amended water-right Permit 11518 (“Amended Permit 11518”), which was issued by the State Water Resources Control Board (the “SWRCB”) on April 27, 2006 on Application 14113, and which authorizes the diversion of water from the South Fork Feather River, Lost Creek and the Feather River at specified points of diversion, for domestic, municipal and industrial purposes of use within the boundaries of the District and the City and for irrigation purposes of use within the District.

B. Term 6 of Amended Permit 11518 limits the total combined authorized diversions under amended water-right Permit 11516 (which was issued on Application 13957 and is held by the District) and Amended Permit 11518 to 23,700 acre-feet per year (“af/yr”).

C. Although the District anticipates that it ultimately will require this entire authorized 23,700 af/yr of water for beneficial uses within the District’s boundaries, the District anticipates that it will not need this entire authorized 23,700 af/yr during of the term of this Agreement, and that the District therefore will be able to make up to 4,500 af/yr of surplus water available to the City during the term of this Agreement, for diversion and use by the City under Amended Permit 11518 and pursuant to the terms of this Agreement.

D. On May 27, 2005, the District and the South Feather Water and Power Agency (“SFWPA”) executed an agreement (the “2005 SFWPA/District Agreement”), which, among other things, specifies the amounts of water from the South Feather Power Project (the “SFPP”) that the District may require SFWPA to deliver to the District at the SFPP’s Turnout SF-14. On

May 20, 2010, the District and SFWPA executed an amendment to the 2005 SFWPA/District Agreement.

E. Paragraph III.7 of the 2005 SFWPA/District Agreement authorizes the District, in lieu of receiving some or all of the 4,500 af/yr of SFPP water that it is authorized to receive under paragraph III.6 of that agreement at Turnout SF-14, instead to request that all or the remaining portion of this 4,500 af/yr of SFPP water be passed through the Kelly Ridge Powerhouse to the Feather River for delivery to Yuba City.

F. The City needs a supplemental supply of water for domestic, municipal and industrial purposes.

G. The City and the District entered into an agreement on December 1, 1980, under which the District agreed to furnish 4,500 acre-feet of water per year to the City until December 31, 2010.

H. The City and the District desire to continue the water sales that have occurred and are occurring under the 1980 agreement for an additional 25 years. To continue these sales, the City and the District desire to execute this Amended Agreement For Sale of Surplus Water (the "Agreement"), which will become effective on January 1, 2011, and which will supersede the December 1, 1980 agreement.

NOW, THEREFORE, in consideration of these recitals and the mutual promises made in this Agreement, the District and the City (collectively referred to as the "Parties") agree as follows:

1. The preceding recitals are true.
2. This Agreement will become effective on January 1, 2011, and will remain in effect through December 31, 2035, unless sooner terminated pursuant to any the provisions of this Agreement. When this Agreement becomes effective on January 1, 2011, it will supersede the agreement that the Parties entered into on December 1, 1980. Representatives of the District and City will meet some time between December 31, 2030 and June 1, 2031 to discuss the potential to further extend this Agreement on terms and conditions acceptable to City and District at that time. However, nothing in this Agreement will be construed to create any obligation on either party to extend this Agreement beyond December 31, 2035.

3. (a) The water that the District will make available to the City under this Agreement will be water that will be surplus to the needs of the District at the time of the sale. The City will not acquire any permanent right to divert any water under Amended Permit 11518 or any permanent right to receive any water from the District. The District does not have and will not have any public-service obligation to the City or any of the City's customers. The District will be the sole holder and owner of any appropriative right that is created, expanded or perfected by the City's diversions or use of water made available by the District to the City under this Agreement, and the District's making water available to the City under this Agreement will not confer any appropriative, public-trust, public-service or other right to the City or any of the City's customers.

(b) The only rights granted to the City under this Agreement are those expressly set forth in this Agreement. Nothing in this Agreement is intended to or will be construed to act as a forfeiture, diminution or impairment of any water right of the District. Consistent with Water Code sections 109, 475, 1011, 1014 through 1017 and 1244, the District's making water available to the City under this Agreement will not be evidence of or used to demonstrate either the existence of surplus water after this Agreement expires or the lack of beneficial use by the District or its customers of the water supplies referred to in this Agreement, and the City will not contend otherwise. In accordance with Water Code section 1016 and other applicable provisions of California law, at the conclusion of the term of this Agreement, all rights in, and the rights to use, the water supplies referred to in this Agreement will revert back to the District, and the City will not: (a) bring any claim for a continuation of the water supply that will be made available by this Agreement; or (b) claim any right to a continued supply of the water that will be made available by this Agreement, based on reliance, estoppel, intervening public use, prescription, water shortage emergency, unforeseen or unforeseeable increases in demand, or any other cause.

(c) The water that is provided to the City under this Agreement will be provided pursuant to Amended Permit 11518 and the water right associated with that permit. No water will be provided to the City under this Agreement pursuant to any other water-right permit or license or any other water right. The City acknowledges that no water will be provided under this Agreement pursuant to Amended Permit 11516 or any water right associated with that permit, or pursuant to any water-right permit or license held by SFWPA or any water right associated with any such permit or license, and the City waives any claim that it has any right under this

Agreement to receive water pursuant to any of these water-right permits or licenses or any of these water rights.

4. Starting with the 2011 calendar year and during each calendar year thereafter through 2035, and subject to the terms of this Agreement, the District will make available to the City the 4,500 acre-feet of water that the District is authorized to receive under paragraph III.6 of the 2005 SFWPA/District Agreement. The maximum amount of water that the City may receive from the District under this Agreement during any year will be 4,500 acre-feet.

5. (a) The District will make this water available to the City according to the following monthly schedule:

April	181 acre-feet
May	492 acre-feet
June	893 acre-feet
July	922 acre-feet
August	922 acre-feet
September	714 acre-feet
October	<u>376 acre-feet</u>
Total	4,500 acre-feet

Provided, however, the District will meet with the City during March of each year to discuss whether or not any changes should be made to this monthly delivery schedule, and to discuss the appropriate monthly delivery schedule if the total amount of water to be made available by the District to the City during that year is less than 4,500 acre-feet. Any such changes will be made if authorized by the District. The District will use its best efforts to accommodate City's requests for changes in this monthly delivery schedule, but nothing in this sentence will be construed: (i) to require the District to make such changes, if doing so would result in any additional costs to the District or in any reduction in the amounts of any water supplies available to the District; or (ii) to affect the annual amounts of water specified in paragraph 4 above.

(b) The water made available by the District to the City under this Agreement will be used or furnished by the City only for domestic, municipal and industrial purposes and only for uses at locations that are both within the City's service area and within the authorized place of use specified in Amended Permit 11518.

(c) The character or quality of the water that the District will make available to the City under this Agreement may vary from time to time, and the District does not guarantee in any respect the character or quality of this water.

(d) The City will not sell or transfer of any water that the District makes available to the City under this Agreement, or of the right to use any such water, without the District's prior written consent. However, the preceding sentence does not apply to sales to or uses by retail customers within both the City's water service area and the authorized place of use specified in Amended Permit 11518.

(e) The City will promptly provide the District with all of the information that is necessary for the District to comply with the reporting requirements in term 12 of Amended Permit 11518.

(f) The City will comply with any provision of Amended Permit 11518 that is applicable to the City.

6. (a) The City will pay the District for the water that the District makes available to the City under this Agreement during 2011 at the rate of \$55.00 per acre-foot. The City will pay the District for the water that the District makes available to the City under this Agreement during 2012 at the rate of \$70.00 per acre-foot. For 2013 through 2025, the City will pay the District for the water that the District makes available to the City under this Agreement at the rate of \$70.00 per acre-foot times the Consumer Price Index for the December preceding the year during which the District makes the water available to the City divided by the Consumer Price Index for December 2012. The per-acre-foot rate in the preceding sentence for each year will be rounded to the nearest cent. For these calculations, the United States Department of Labor (Bureau of Labor Statistics) All Urban Consumers San Francisco 1982-1984=100 index will be used. If this index no longer is available, then the City and District will meet and confer and attempt to reach agreement on the index that will be used to calculate these water rates. If the parties do not reach agreement on the appropriate substitute index, then the appropriate substitute index will be determined pursuant to the arbitration provisions of sections 1280 through 1294.2 of the California Code of Civil Procedure, with the arbitrator to select the index that is available and is most comparable to the index described in this paragraph. This paragraph will not be construed to give any arbitrator any jurisdiction to make a decision or order on any issue other than the appropriate substitute index.

(b) The District and the City intend that the prices that the City pays the District for water made available under this Agreement during 2026 through 2035 will be set to reflect the market prices for similar long-term water sales during these periods. The District and the City will meet during 2024 to attempt to reach agreement on the prices that will apply to water made available under this Agreement during 2026 through 2035. If, during 2024, the parties do not reach agreement on the appropriate prices for water to be made available during 2026 through 2035, then the appropriate prices will be determined pursuant to the arbitration provisions of sections 1280 through 1294.2 of the California Code of Civil Procedure, with the arbitrator to select the prices that best reflect the market prices for similar long-term water sales during the same or a similar period. “Similar long-term water sales” will mean sales of water under agreements with terms greater than one year to municipal water purveyors, where the agreements were executed some time between January 1, 2015 and December 31, 2024, and where both the seller and the buyer are located in the Sacramento Valley or the service area of the North Bay Aqueduct. Such sales will not include sales of water to the East Bay Municipal Utilities District, regardless of the point of diversion for such sales. In determining the market prices for such similar long-term water sales, adjustments will be made for any costs or fees paid by the sellers for compliance with the California Environmental Quality Act, the federal Endangered Species Act, the Water Code or any other applicable legal requirement, so that the prices received by sellers under such sales are as comparable as possible to the prices to be received by the District for sales of water during 2026 through 2035 under this Agreement. This paragraph will not be construed to give any arbitrator any jurisdiction to make a decision or order on any issue other than the appropriate price or prices that are described in this paragraph, unless the District and the City agree in writing that the arbitrator may consider and decide any other issue or issues.

(c) The City will pay the District on or before July 31 of each year for all water made available by the District to the City under this Agreement between November 1 of the preceding year and June 30 of that year. The City will pay the District on or before November 30 of each year for all water made available by the District to the City under this Agreement between July 1 and October 31 of that year. Except as provided in paragraph (d) below, the City will make these payments to the District regardless of the amounts of this water that the City actually diverts or uses. However, the City will not be obligated to pay the District for any water that the District does not make available to the City under this Agreement for any reason. If any payment by the

City to the District under this Agreement is not made in full within 30 days of its due date, then the City also will pay the District interest on the payment or any unpaid portion of the payment. This interest will be calculated at the rate of 1½ percent per month from the due date specified in the first or second sentence of this paragraph (whichever is applicable) until the date of the payment, prorated to the nearest day.

(d) If the City notifies the District in writing that the City does not plan to take delivery of all of the water it is authorized to receive under this Agreement during any year, then the District may transfer this water to another buyer. The District will not be obligated to make any such transfer and instead may require the City to make the payments specified in paragraph (c) above for such water. However, if the District does transfer such water, then the City will not be obligated to pay for the water thus transferred, and the District will be authorized to receive and retain all of the proceeds of such transfer.

7. (a) The water to be made available by the District to the City pursuant to this Agreement will be made available to the City at the outlet of the Kelly Ridge Powerhouse on the Feather River as part of the total flow of water at this point at the time of delivery. The District will not be responsible for the control, carriage, handling, use, disposal, or distribution, beyond this point of delivery, of any water that the District makes available to the City under this Agreement.

(b) The City will indemnify, hold harmless, protect and defend the District and SFWPA and their officers, agents and employees from and against any and all liabilities, claims, demands, damages, losses, disabilities and expenses (including attorney fees and litigation costs) arising from any actions taken by the City in connection with implementation of this Agreement, except for liabilities, claims, demands, damages, losses, disabilities and expenses that are based on the District's or SFWPA's sole negligence, willful misconduct or violation of law.

8. (a) There may be a temporary or permanent discontinuance or reduction of water that the District makes available to the City under this Agreement because of: (i) operations, maintenance, repairs and replacements of South Feather Power Project facilities; (ii) orders of the SWRCB, its Division of Water Rights, some other regulatory agency or a court; (iii) droughts; or (iv) other conditions beyond the District's control. If any such action reduces the amount of water available for diversion and use by Yuba City under Amended Permit 11518 to less than 4,500 acre-feet during any year, then the amount of water that the District makes

available to Yuba City under this agreement during that year will be reduced by the same amount. If any such action reduces the total amount of water available for diversion and use under Amended Permit 11516 and Amended Permit 11518 to less than 23,700 acre-feet during any year, then the District, in its sole but reasonable discretion, may reduce the amount of water that the District makes available to the City during that year by the amount by which the total amount of water available for diversion and use under these amended permits is less than 23,700 acre-feet. For example, if only 21,000 acre-feet is available for diversion and use under these amended permits during a year, then the District may reduce the amount of water that the District makes available to the City during that year by 2,700 acre-feet ($23,700 - 21,000 = 2,700$), and thus make only 1,800 acre-feet ($4,500 - 2,700 = 1,800$) of water available to the City under this Agreement during that year, if the District actually needs for reasonable and beneficial uses within its service area all 19,200 acre-feet ($21,000 - 1,800 = 19,200$).

(b) The City acknowledges that: (i) term 7 of Amended Permit 11518 specifies that complete application of water to the authorized use shall be prosecuted with reasonable diligence and completed by December 31, 2004; (ii) on November 30, 2004, NYWD filed a petition with the SWRCB to extend this deadline; (iii) neither the SWRCB nor the SWRCB's Division of Water Rights has issued any order yet on this petition; and (iv) when such an order is issued, it could reduce the amount of water available for diversion and use under Amended Permit 11518 or the amount of water that will be available to the City under this Agreement. The District will actively oppose any proposed or actual reduction by the SWRCB or the SWRCB's Division of Water Rights in the amount of water available for diversion and use under Amended Permit 11518, or in the amount of water that will be available to the City under this Agreement, but the District in its sole discretion may make strategic decisions regarding any Division of Water Rights, SWRCB or related court proceeding concerning any such proposed or actual reduction.

(c) The City acknowledges that: (i) term 12 of Amended Permit 11518 requires NYWD to prepare, implement, and possibly amend, certain water-rights accounting plans; (ii) because of revenue limitations, NYWD has not yet fully complied with this term 12; and (iii) because of this lack of full compliance, the SWRCB or the SWRCB's Division of Water Rights may issue an order that could reduce the amount of water available for diversion and use under Amended Permit 11518 or the amount of water that will be available to this City under this Agreement. Beginning on January 1, 2011, the District will promptly prepare, implement and if necessary

amend those water-right accounting plans. The District will actively oppose any proposed or actual reduction by the SWRCB or the SWRCB's Division of Water Rights in the amount of water available for diversion and use under Amended Permit 11518, or in the amount of water that will be available to the City under this Agreement, but the District in its sole discretion may make strategic decisions regarding any Division of Water Rights, SWRCB or related court proceeding concerning any such proposed or actual reduction.

(d) The District will not be obligated to provide any water under this Agreement that cannot first be used at the Kelly Ridge Powerhouse for hydroelectric power generation. The City acknowledges that SFWPA presently shuts the Kelly Ridge Powerhouse down for maintenance for approximately two weeks each October and that, during such shutdowns, the District cannot provide any water under this Agreement, except possibly as provided under the following sentence of this paragraph. If the District, the City and SFWPA can reach agreement on the amount of additional compensation that the City will pay to the District under this Agreement for the deliveries of water under this Agreement during times when such water cannot first be used at the Kelly Ridge Powerhouse for hydroelectric power generation, then deliveries of such water may occur.

(e) No liability will accrue against District or SFPWA or any of their directors, officers, agents or employees for any damage, direct or indirect, arising from any discontinuance or reduction in the amounts of water that the District makes available to the City under this Agreement. However, the City will not be obligated to pay the District for any water that the District does not make available to the City under this Agreement for any reason.

9. (a) The District will not be obligated to make any water available to the City under this Agreement during any time when the City is in arrears in payment of any amount that the City is obligated to pay the District under this Agreement.

(b) The District may, at its option, terminate this Agreement on 60 days' written notice to the City after any failure of the City to make any payment to the City that is required by this Agreement within three months of the date on which such payment is due. If such a termination occurs, then all future obligations of District and all future rights of City under this Agreement will cease, but such termination shall not relieve the City of its obligation to pay the District all amounts due under this Agreement before its termination.

(c) If the District does not deliver to the City all of the amounts of water that the District is required by this Agreement to deliver to the City, then the City may, in its discretion, terminate this Agreement on 60 days' written notice to the District. If such a termination occurs, then all future rights and obligations of the District and the City on this Agreement will terminate, but such termination will not affect the City's obligation to pay the District for all amounts that are due from the City to the District under this Agreement on the date of termination.

10. This Agreement will apply to and bind any successors or assigns of both Parties, but no assignment or transfer of this Agreement, any part of it or any interest in it by the City will be valid unless and until approved in writing by the District.

11. Each person signing this Agreement represents that he or she is authorized to sign it on behalf of the Party for whom he or she is signing the Agreement and to bind that Party to this Agreement.

12. If any dispute regarding this Agreement arises, then the Parties will make reasonable and good-faith attempts to resolve the dispute before filing any legal action regarding the dispute. Such reasonable and good-faith attempts will include at least one meeting, and, if the Parties agree, hiring a mutually agreeable mediator (with each Party bearing one-half of the mediator's costs) and submitting the dispute to the mediator for non-binding mediation. Both Parties will make all reasonable good-faith efforts to promptly schedule and to participate in mediation meetings and to devote the necessary time and resources to attempt to resolve to dispute. If such efforts are not successful, then either Party may pursue any available legal remedies. Nothing in this paragraph will be construed to create any right to arbitration.

13. This Agreement is entered into freely and voluntarily. The Parties acknowledge that they have been represented by attorneys of their own choice in the negotiations that preceded the execution of this Agreement and in connection with its preparation and execution.

14. This Agreement constitutes the entire agreement between the Parties pertaining to the settlement of disputes and obligations between them. This Agreement supersedes all prior and contemporaneous agreements, representations and obligations concerning those obligations, which are merged into this Agreement. This Agreement is made on the understanding that each term is in consideration and support of every other term, and each term is a necessary part of the entire Agreement.

15. This Agreement is the product of negotiation and preparation by and among the Parties and their attorneys. Therefore, the Parties acknowledge and agree that this Agreement will not be deemed to have been prepared or drafted by any one Party. Accordingly, the normal rule of construction to the effect that any ambiguities are to be resolved against the drafting party will not be employed in the interpretation of this Agreement.

16. No supplement, modification, waiver, or amendment of this Agreement will be binding unless executed in writing by the Party against whom enforcement of such supplement, modification, waiver or amendment is sought.

17. This Agreement may be signed in two counterparts by the Parties, each of which will be deemed to be an original, and both of which together will be deemed one and the same instrument. Counterpart executions may be made by facsimile.

18. Except as otherwise provided, all notices required under or regarding this Agreement will be made in writing addressed to the Party at the address listed here:

North Yuba Water District
Attention: General Manager
P. O. Box 299
8691 La Porte Road
Brownsville, California 95919
Fax: 530-675-0462

Yuba City
Attention: Director
701 Northgate Drive
Yuba City, California 95991
Fax: 530-822-4739

Any Party may send such notice to the other Party by first-class mail or comparable method of distribution. For purposes of this Agreement, a notice will be effective five days after the date on which it is mailed or otherwise distributed. When this Agreement requires notice in less than five days, notice will be provided by personal service or facsimile and will be effective when provided.

19. Except as otherwise expressly set forth herein, this Agreement does not and will not be deemed to make any Party the agent for or partner of any other Party.

CITY OF YUBA CITY

NORTH YUBA WATER DISTRICT

By _____

By _____

President

Its _____

Attest: _____

Secretary

Date _____

Date _____

8648\Yuba City Agreement\Amended NYWD-Yuba City Agreement final 05-20-10.doc.

[For full information concerning the filling out of this form refer to Article 4 of Rules and Regulations Pertaining to Appropriation of Water]

STATE OF CALIFORNIA—STATE WATER RIGHTS BOARD

Application No. 18025 Filed March 5, 1958, at 2:21 P. M. (Applicant must not fill in the above blanks)

APPLICATION TO APPROPRIATE UNAPPROPRIATED WATER AMENDED APPLICATION RECEIVED 3-31-58

I, City of Yuba City, A Municipal Corporation Name of applicant or applicants of Yuba City Address County of Sutter State of California

, do hereby make application for a permit to appropriate the following described unappropriated waters of the State of California, SUBJECT TO VESTED RIGHTS:

Source, Amount, Use and Location of Diversion Works

1. The source of the proposed appropriation is Feather River located in Sutter County, tributary to Sacramento River

2. The amount of water which applicant desires to appropriate under this application is as follows: (a) For diversion to be directly applied to beneficial use 15.6 cubic feet per second, to be diverted from January 1 to July 1 and from September 1 to December 31 of each year.

(b) For diversion to be stored and later applied to beneficial use per annum, to be collected between and of each season.

NOTE.—Answer (a) or (b) or both (a) and (b) as may be necessary. If amount under (a) is less than .025 cubic foot per second, state in gallons per day. Neither the amount nor the season may be increased after application is filed. If underground storage is proposed a special supplemental form will be supplied by the State Water Rights Board upon request.

3. The use to which the water is to be applied is municipal Domestic, irrigation, power, municipal, mining, industrial, recreational purposes.

4. The point of diversion is to be located N 55° 33'E, 4268.60' from the NW corner of Section 15, T15N, R3E, MDB&M State bearing and distance or coordinate distances from section or quarter section corner

being within the NW of SW (New Helvetia Grant) of Section 11, T. 15N, R. 3E, M.D. B. & M., in the County of Sutter (New Helvetia Grant)

5. The main conduit terminates in NW of NW of Sec 14, T. 15N, R. 3E, M.D. B. & M. State 40-acre subdivision of U. S. Government survey or projection thereof

Description of Diversion Works

NOTE.—An application cannot be approved for an amount grossly in excess of the estimated capacity of the diversion works.

6. Intake or Headworks (fill only those blanks which apply) (a) Diversion will be made by pumping from Sump Basin (b) Diversion will be by gravity, the diverting dam being feet in height (stream bed to level of overflow); feet long on top; and constructed of Concrete, earth, brush, etc. (c) The storage dam will be feet in height (stream bed to spillway level); feet long on top; have a freeboard of feet, and be constructed of Concrete, earth, etc.

7. Storage Reservoir None The storage reservoir will flood lands in

It will have a surface area of acres, and a capacity of acre-feet. If reservoir has a capacity of 25 acre-feet or more fill in the following: Diameter of outlet pipe inches; length feet; difference in elevation from spillway level to highest point of outlet pipe feet; fall in pipe feet.

15. Municipal Use. This application is made for the purpose of serving _____
Name city or cities, town or towns. Urban areas only
having a present population of _____

The estimated average daily consumption during the month of maximum use at the end of each five-year period until the full amount applied for is put to beneficial use is as follows:

1958 - 5 million gallons per day

1963 - 6 1/4 million gallons per day

1968 - 7 1/2 million gallons per day

1973 - 8 3/4 million gallons per day

1978 - 10 million gallons per day

16. Mining Use. The name of the mining property to be served is _____
Name of claim
and the nature of the mines is _____
Gold placer, quartz, etc.

The method of utilizing the water is _____
It is estimated that the ultimate water requirement for this project will be _____
Cubic feet per second, gallons per minute. State basis of estimate

The water will _____ be polluted by chemicals or otherwise _____
will not
and it will _____ be returned to _____ in _____ of
will not Name stream State 40-acre subdivision
Sec. _____, T. _____, R. _____, B. & M. _____
Explain nature of pollution, if any

17. Other Uses. The nature of the use proposed is _____ Domestic use for the present population
Industrial, recreational, domestic, stockwatering, fish culture, etc.
of approximately 11,000 and service to 3500 homes, including yard area not to exceed 1/2 acre; projecting the need for an increase in population to 22,000 persons and 7000 homes.
State basis of determination of amount needed.
Number of persons, residences, area of domestic lawns and gardens, number and kind of stock, type

_____ industrial use, and unit requirements

General

18. Are the maps as required by the Rules and Regulations filed with Application? _____ Yes _____ No _____ If not, state specifically the time required for filing same.
Yes or No

19. Does the applicant own the land at the proposed point of diversion? _____ No _____ Yes _____ If not, give name and address of owner and state what steps have been taken to secure right of access thereto. Charles W. and Eleanor Rose, Box 751, Marysville, California; William E. and Helen Stuke. "

20. What is the name of the post office most used by those living near the proposed point of diversion?
Yuba City Post Office

21. What are the names and addresses of claimants of water from the source of supply below the proposed point of diversion?
Unknown

PERMIT No. 190115

This is to certify that the application of which the foregoing is a true and correct copy has been considered and approved by the State Water Rights Board SUBJECT TO VESTED RIGHTS and the following limitations and conditions:

1. The amount of water appropriated shall be limited to the amount which can be beneficially used, and shall not exceed 15.6 cubic feet per second by direct diversion to be diverted from about January 1 to about July 1 and from about September 1 to about December 31 of each year.
2. The maximum amount herein stated may be reduced in the license if investigation warrants.
3. Actual construction work shall begin on or before December 1, 1964, and shall thereafter be prosecuted with reasonable diligence, and if not so commenced and prosecuted this permit may be revoked.
4. Said construction work shall be completed on or before December 1, 1966.
5. Complete application of the water to the proposed use shall be made on or before December 1, 1970.
6. Progress reports shall be filed promptly by permittee on forms which will be provided annually by the State Water Rights Board until license is issued.
7. All rights and privileges under this permit including method of diversion, method of use and quantity of water diverted are subject to the continuing authority of the State Water Rights Board in accordance with law and in the interest of the public welfare to prevent waste, unreasonable use, unreasonable method of use or unreasonable method of diversion of said water.
8. Permittee shall allow representatives of the State Water Rights Board and other parties, as may be authorized from time to time by said Board, reasonable access to project works to determine compliance with the terms of this permit.

This permit is issued and permittee takes it subject to the following provisions of the Water Code:

Section 1390. A permit shall be effective for such time as the water actually appropriated under it is used for a useful and beneficial purpose in conformity with this division (of the Water Code), but no longer.

Section 1391. Every permit shall include the enumeration of conditions therein which in substance shall include all of the provisions of this article and the statement that any appropriator of water to whom a permit is issued takes it subject to the conditions therein expressed.

Section 1392. Every permittee, if he accepts a permit, does so under the conditions precedent that no value whatsoever in excess of the actual amount paid to the State therefor shall at any time be assigned to or claimed for any permit granted or issued under the provisions of this division (of the Water Code), or for any rights granted or acquired under the provisions of this division (of the Water Code), in respect to the regulation by any competent public authority of the services or the price of the services to be rendered by any permittee or by the holder of any rights granted or acquired under the provisions of this division (of the Water Code) or in respect to any valuation for purposes of sale to or purchase, whether through condemnation proceedings or otherwise, by the State or any city, city and county, municipal water district, irrigation district, lighting district, or any political subdivision of the State, of the rights and property of any permittee, or the possessor of any rights granted, issued, or acquired under the provisions of this division (of the Water Code).

Dated: JUL 19 1963



STATE WATER RIGHTS BOARD

L. K. Hill

L. K. HILL
Executive Officer

beneficial uses intended with due diligence. Annual reports or progress reports shall be furnished for the purpose. When the water has been fully applied to the beneficial uses intended the Water Code requires that you notify the State Water Rights Board thereof.

2. Neither this application nor the permit is a water right, but if the terms and conditions of the permit are observed a water right can be obtained through beneficial use of the water—the extent of the right to be determined by a field inspection which will be made by a representative of the State Water Rights Board.
3. No change in point of diversion, or place of use or character of use, can be made under this application and permit without the approval of the State Water Rights Board.
4. If the rights under this permit are assigned immediate notice to that effect with the name and address of the new owner should be forwarded to the State Water Rights Board, Sacramento, California.
5. Please advise immediately of any change of address. Until otherwise advised communications will be sent to the address used in the letter transmitting this permit.

114045

STATE OF CALIFORNIA
THE RESOURCES AGENCY
STATE WATER RESOURCES CONTROL BOARD
DIVISION OF WATER RIGHTS

ORDER

APPLICATION 18025

PERMIT 14045

LICENSE _____

ORDER ALLOWING CHANGE IN THE PLACE OF USE,
APPROVING A NEW DEVELOPMENT SCHEDULE, AND AMENDING PERMIT

WHEREAS:

1. A petition for extension of time within which to develop the project and apply water to the proposed use and a petition to change the place of use have been filed with the State Water Resources Control Board.
2. The Board finds that the permittee has proceeded with diligence and that good cause has been shown for extension of time.
3. The Board has determined that the change will not operate to the injury of any other legal user of water involved.

NOW, THEREFORE, IT IS ORDERED THAT:

1. Permission is hereby granted to change the place of use under Permit 14045 to a place of use described as follows:

AREA INCLUDED WITHIN THE "BOUNDARY LINE FOR THE YEAR 2000 SERVICE AREA", AS SHOWN ON MAP FILED WITH THE STATE WATER RESOURCES CONTROL BOARD ON SEPTEMBER 15, 1977.

2. A new development schedule is approved as follows:

APPLICATION OF THE WATER TO THE PROPOSED USE SHALL BE COMPLETED ON OR BEFORE DECEMBER 1, 1987.

Dated: JULY 14 1982

Raymond Walsh
Raymond Walsh, Chief
Division of Water Rights

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD
DIVISION OF WATER RIGHTS

ORDER

APPLICATION 18025

PERMIT 14045

LICENSE _____

ORDER APPROVING A NEW DEVELOPMENT SCHEDULE
AND AMENDING THE PERMIT

WHEREAS:

1. Permit 14045 was issued to City of Yuba City, A Municipal Corporation on July 19, 1963 pursuant to Application 18025.
2. A petition for extension of time within which to develop the project and apply the water to the proposed use has been filed with the State Water Resources Control Board.
3. The permittee has proceeded with diligence and good cause has been shown for extension of time.
4. Permit Condition 7 pertaining to the continuing authority of the Board should be updated to conform to standard permit term 12 as contained in Title 23, California Code of Regulations, Section 780(a).

NOW, THEREFORE, IT IS ORDERED THAT:

1. A new development schedule is approved as follows:

COMPLETE APPLICATION OF THE
WATER TO THE PROPOSED USE
SHALL BE MADE ON OR BEFORE

December 31, 2001 (0000009)

2. Condition 7 of the permit be amended to read:

Pursuant to California Water Code Sections 100 and 275, and the common law public trust doctrine, all rights and privileges under this permit and under any license issued pursuant thereto, including method of diversion, method of use, and quantity of water diverted, are subject to the continuing authority of the State Water Resources Control Board in accordance with law and in the interest of the public welfare to protect public trust uses and to prevent waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of said water.

The continuing authority of the Board may be exercised by imposing specific requirements over and above those contained in this permit with a view to eliminating waste of water and to meeting the reasonable water requirements of permittee without unreasonable draft on the source. Permittee may be required to implement a water conservation plan, features of which may include but not necessarily be limited to: (1) reusing or reclaiming the water allocated; (2) using water reclaimed by another entity instead of all or part of the water allocated; (3) restricting diversions so as to eliminate agricultural tailwater or to reduce return flow; (4) suppressing evaporation losses from water surfaces; (5) controlling phreatophytic growth; and (6) installing, maintaining, and operating efficient water measuring devices to assure compliance with the quantity limitations of this permit and to determine accurately water use as against reasonable

measuring devices to assure compliance with the quantity limitations of this permit and to determine accurately water use as against reasonable water requirements for the authorized project. No action will be taken pursuant to this paragraph unless the Board determines, after notice to affected parties and opportunity for hearing, that such specific requirements are physically and financially feasible and are appropriate to the particular situation.

The continuing authority of the Board also may be exercised by imposing further limitations on the diversion and use of water by the permittee in order to protect public trust uses. No action will be taken pursuant to this paragraph unless the Board determines, after notice to affected parties and opportunity for hearing, that such action is consistent with California Constitution Article X, Section 2; is consistent with the public interest and is necessary to preserve or restore the uses protected by the public trust.

(0000012)

Dated: SEPTEMBER 13 1988

Walter G. Pettit
for Walter G. Pettit, Chief
Division of Water Rights

STATE OF CALIFORNIA
THE RESOURCES AGENCY
STATE WATER RESOURCES CONTROL BOARD
DIVISION OF WATER RIGHTS

PERMIT FOR DIVERSION AND USE OF WATER

PERMIT 1855B

Application 25751 of City of Yuba City

441 Colusa Avenue, Yuba City, California 95991

filed on May 31, 1978, has been approved by the State Water Resources Control Board SUBJECT TO VESTED RIGHTS and to the limitations and conditions of this Permit.

Permittee is hereby authorized to divert and use water as follows:

1. Source:

Feather River

Tributary to:

Sacramento River

2. Location of point of diversion:	40-acre subdivision of public land survey or projection thereof	Section	Township	Range	Base and Meridian
North 75° 23' East 6,540 feet from NW corner Project Section 11	NW $\frac{1}{4}$ of SW $\frac{1}{4}$	11	15N	3E	MD

County of Sutter

3. Purpose of use:	4. Place of use:	Section	Township	Range	Base and Meridian	Acres
Municipal	Service Area of City of Yuba City		15N	3E	MD	

The place of use is shown on map filed with the State Water Resources Control Board.

5. The water appropriated shall be limited to the quantity which can be beneficially used and shall not exceed 21 cubic feet per second to be diverted from January 1 to June 30 and from October 1 to December 31 of each year. The maximum amount diverted under this permit shall not exceed 9,000 acre-feet per year. (0000005)
6. The amount authorized for appropriation may be reduced in the license if investigation warrants. (0000006)
7. Construction work shall be completed by December 1, 2000. (0000008)
8. Complete application of the water to the authorized use shall be made by December 1, 2001. (0000009)
9. Progress reports shall be submitted promptly by permittee when requested by the State Water Resources Control Board until license is issued. (0000010)
10. Permittee shall allow representatives of the State Water Resources Control Board and other parties as may be authorized from time to time by said Board, reasonable access to project works to determine compliance with the terms of this permit. (0000011)
11. Pursuant to California Water Code Sections 100 and 275, all rights and privileges under this permit and under any license issued pursuant thereto, including method of diversion, method of use, and quantity of water diverted, are subject to the continuing authority of the State Water Resources Control Board in accordance with law and in the interest of the public welfare to prevent waste, unreasonable use, unreasonable methods of use, or unreasonable method of diversion of said water.
The continuing authority of the Board may be exercised by imposing specific requirements over and above those contained in this permit with a view to minimizing waste of water and to meeting the reasonable water requirements of permittee without unreasonable draft on the source. Permittee may be required to implement such programs as (1) reusing or reclaiming the water allocated; (2) using water reclaimed by another entity instead of all or part of the water allocated; (3) restricting diversions so as to eliminate agricultural tailwater or to reduce return flow; (4) suppressing evaporation losses from water surfaces; (5) controlling phreatophytic growth; and (6) installing, maintaining, and operating efficient water measuring devices to assure compliance with the quantity limitations of this permit and to determine accurately water use as against reasonable water requirements for the authorized project. No action will be taken pursuant to this paragraph unless the Board determines, after notice to affected parties and opportunity for hearing, that such specific requirements are physically and financially feasible and are appropriate to the particular situation. (0000012)
12. The quantity of water diverted under this permit and under any license issued pursuant thereto is subject to modification by the State Water Resources Control Board if, after notice to the permittee and an opportunity for hearing, the Board finds that such modification is necessary to meet water quality objectives in water quality control plans which have been or hereafter may be established or modified pursuant to Division 7 of the Water Code. No action will be taken pursuant to this paragraph unless the Board finds that (1) adequate waste discharge requirements have been prescribed and are in effect with respect to all waste discharges which have any substantial effect upon water quality in the area involved, and (2) the water quality objectives cannot be achieved solely through the control of waste discharges. (0000013)
13. Permittee shall consult with the Division of Water Rights and the Department of Water Resources and develop and implement a water conservation program or actions. A progress report on development of the program shall be submitted to the Board within 6 months. The program or proposed actions shall be presented to the Board for approval within one year from the date of this order or such further time as may, for good cause shown, be allowed by the Board. (0000029)
14. In accordance with Section 6100 of the Fish and Game Code, no work shall be started on the diversion works and no water shall be diverted until permittee has entered into a stream or lake alteration agreement with the Department of Fish and Game and/or the Department has determined that measures to protect fishlife have been incorporated into the plans for construction of such diversion works. Construction, operation, and maintenance costs of any required facility are the responsibility of permittee. (0000063)

15. The State Water Resources Control Board reserves jurisdiction over this permit to change the season of diversion to conform to the results of a comprehensive analysis of the availability of unappropriated water in the Sacramento River Basin. Action to change the season of diversion will be taken only after notice to interested parties and opportunity for hearing. (0000080)

16. This permit is subject to prior rights. Permittee is put on notice that during some years water will not be available for diversion during portions or all of the season authorized herein. The annual variations in demands and hydrologic conditions in the Sacramento River Basin are such that in any year of water scarcity the season of diversion authorized herein may be reduced or completely eliminated on order of this Board made after notice to interested parties and opportunity for hearing. (0000090)

17. No diversion is authorized by this permit when satisfaction of inbasin entitlements requires release of supplemental Project water by the Central Valley Project or the State Water Project.

- A. Inbasin entitlements are defined as all rights to divert water from streams tributary to the Sacramento-San Joaquin Delta or the Delta for use within the respective basins of origin or the Legal Delta, unavoidable natural requirements for riparian habitat and conveyance losses, and flows required by the Board for maintenance of water quality and fish and wildlife. Export diversions and Project carriage water are specifically excluded from the definition of inbasin entitlements.
- B. Supplemental Project water is defined as water imported to the basin by the projects, and water released from Project storage, which is in excess of export diversions, Project carriage water, and Project inbasin deliveries.

The Board shall notify the permittee of curtailment of diversion under this term after it finds that supplemental Project water has been released or will be released. The Board will advise the permittee of the probability of imminent curtailment of diversion as far in advance as practicable based on anticipated requirements for supplemental Project water provided by the Project operators. (0000091)

18. No water shall be used under this permit until the permittee has filed a report of waste discharge with the California Regional Water Quality Control Board, Central Valley Region, pursuant to Water Code Section 13260, and the Regional Board or State Water Resources Control Board has prescribed waste discharge requirements or has indicated that waste discharge requirements are not required. Thereafter, water may be diverted only during such times as all requirements prescribed by the Regional Board or State Board are being met. No discharges of waste to surface water shall be made unless waste discharge requirements are issued by a Regional Board or the State Board. A discharge to ground water without issuance of a waste discharge requirement may be allowed if after filing the report pursuant to Section 13260:

- (1) the Regional Board issued a waiver pursuant to Section 13269, or
- (2) the Regional Board fails to act within 120 days of the filing of the report.

No permittee shall be required to file a report of waste discharge pursuant to Section 13260 of the water code for percolation to the groundwater of water resulting from the irrigation of crops.

(0290101)

19. No water shall be diverted under this permit until the permittee signs a contract for water during July, August and September or provides the Board with firm evidence of an alternate supply during those months.

(0260300)

This permit is issued and permittee takes it subject to the following provisions of the Water Code:

Section 1390. A permit shall be effective for such time as the water actually appropriated under it is used for a useful and beneficial purpose in conformity with this division (of the Water Code), but no longer.

Section 1391. Every permit shall include the enumeration of conditions therein which in substance shall include all of the provisions of this article and the statement that any appropriator of water to whom a permit is issued takes it subject to the conditions therein expressed.

Section 1392. Every permittee, if he accepts a permit, does so under the conditions precedent that no value whatsoever in excess of the actual amount paid to the State therefor shall at any time be assigned to or claimed for any permit granted or issued under the provisions of this division (of the Water Code), or for any rights granted or acquired under the provisions of this division (of the Water Code), in respect to the regulation by any competent public authority of the services or the price of the services to be rendered by any permittee or by the holder of any rights granted or acquired under the provisions of this division (of the Water Code) or in respect to any valuation for purposes of sale to or purchase, whether through condemnation proceedings or otherwise, by the State or any city, city and county, municipal water district, irrigation district, lighting district, or any political subdivision of the State, of the rights and property of any permittee, or the possessor of any rights granted, issued, or acquired under the provisions of this division (of the Water Code).

Dated: JULY 15 1982

STATE WATER RESOURCES CONTROL BOARD

L. D. Johnson
for Chief, Division of Water Rights

**WATER SHORTAGE ORDINANCE, RESOLUTION, AND
EMERGENCY PLAN**

Ordinance NO.

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF YUBA CITY REPEALING AND REENACTING CHAPTER 6 OF TITLE 6 OF THE YUBA CITY MUNICIPAL CODE REGARDING WATER SYSTEM

THE CITY COUNCIL OF THE CITY OF YUBA CITY DOES HEREBY ORDAIN
AS FOLLOWS:

Section 1 Chapter 6 of Title 6 of the Yuba City Municipal Code is hereby repealed.

Section 2 Chapter 6 of Title 6 is hereby added to the Yuba City Municipal Code to read as follows:

CHAPTER 6. WATER SYSTEM

Sec. 6-6.01. General provisions.

(a) *Short title.* This chapter shall be known and may be cited as the “Yuba City Water Regulations”.

(b) *Words and phrases.* For the purposes of this chapter, all words used in this chapter in the present tense shall include the future tense, all words in the plural number shall include the singular number, and all words in the singular number shall include the plural number.

(c) *Water system.* The City shall furnish a system, plant, works, and undertaking used for and useful in obtaining, conserving, and distributing water for public and private uses, including all parts of such system, all appurtenances to such system, and lands, easements, rights in land, water rights, contract rights, franchises, and other water supply, storage, and distribution facilities and equipment.

(d) *Separability.* If any section, subsection, sentence, clause, or phrase in this chapter is for any reason held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this chapter.

(e) *Pressure conditions.* All applicants for service connections or water service shall be required to accept such conditions of pressure and service as are provided by the distribution system at the location of the proposed service connection and to hold the City harmless for any damages arising out of low pressure or high pressure conditions or interruptions in service.

(f) *Tampering with City property.* No one, except an employee or representative of the City, shall at any time in any manner operate the curb cocks or valves, main cocks,

gates, or valves of the City's system or interfere with meters or their connections, street mains, or other parts of the water system.

(g) *Penalties for violations.* For the failure of the customer to comply with all or any part of this chapter, or any ordinance, resolution, or order fixing rates and charges of the City, a penalty for which has not hereafter been specifically fixed, the customer's service shall be discontinued, and the water shall not be supplied to such customer until he shall have complied with the rule, regulation, rate, or charge which he has violated or, in the event he cannot comply with such rule or regulation, until he shall have satisfied the City that in the future he will comply with all the rules and regulations established by the laws of the City and with all rates and charges. In addition thereto, he shall pay the City all fines and fees established in Section 6-6.18 and Section 6-6.20 of this chapter.

(h) *Rulings final.* All rulings of the Council shall be final. All rulings of the City Manager shall be final unless appealed in writing to the Council within five (5) days. When appealed, the Council ruling shall be final.

(i) *Repeals.* Ordinance Nos. 272, 307, and 506, and all other ordinances or parts of ordinances in conflict with this chapter, are hereby repealed.

(j) The effective date of this chapter is July 1, 1975.

(k) In connection with any work of construction required by the terms of this chapter, a plan check and inspection fee shall be charged, the amount thereof being as set forth in [the](#) City's Fee Schedule.
(§ 2, Ord. 703, eff. July 1, 1975; as amended by § 5, Ord. 969, eff. April 17, 1985)

Sec. 6-6.02. Definitions.

For the purposes of this chapter, unless otherwise apparent from the context, certain words and phrases used in this chapter are defined as follows:

(a) "*Council*" shall mean the City Council of the City.

(b) "*City*" shall mean the City of Yuba City, and the City Council of the City performing functions related to the City water service, together with the City Manager, the Utilities Director, the Public Works Director, the Finance Director, and other duly authorized representatives.

(c) "*Distribution mains*" shall mean water lines in streets, highways, alleys, and easements used for public and private fire protection and for the general distribution of water.

(d) "*Service or service connection*" shall mean the pipe line and appurtenant facilities, such as curb stop, meter, and meter box, if any, all used to extend water service from a distribution main to premises. Where services are divided at the curb or property

line to serve several customers, each such branch service shall be deemed a separate service.

(e) “*Public fire protection service*” shall mean the service and facilities of the entire water supply and storage and distribution system of the City, including the fire hydrants affixed thereto and the water available for fire protection, excepting house service connections and appurtenances thereto.

(f) “*Regular water service*” shall mean the water service and facilities rendered for normal domestic, commercial, and industrial purposes on a permanent basis and the water available therefor.

(g) “*Temporary water service*” shall mean the water service and facilities rendered for construction work and other uses of limited duration and the water available therefor.

(h) “*Private fire protection service*” shall mean the water service and facilities for building sprinkler systems, hydrants, hose reels, and other facilities installed on private property for fire protection and the water available therefor.

(i) “*Premises*” shall mean a lot or parcel of real property under one ownership, except that any separate structure may be deemed separate premises. Apartment houses, motels, office buildings, and structures of like nature may be classified as single premises.

(j) “*Cross-connection*” shall mean any physical connection between the piping system from the City service and that of any other water supply that is not, or cannot be, approved as safe and potable for human consumption, whereby water from the unapproved source may be forced or drawn into the City distribution mains.

(k) “*Owner*” shall mean the person owning the fee, or the person in whose name the legal title to the property appears, by deed duly recorded in the County Recorder’s office, or the person in possession of the property or buildings under claim of, or exercising acts of ownership over the same for himself, or as executor, administrator, guardian, or trustee of the owner.

(l) “*Person*” shall mean any human being, individual, firm, company, partnership, association, private, public, or municipal corporation, the United States of America, the State of California, and any district, political subdivision, governmental agency, and subsidiary thereof.

(m) “*Cost*” shall mean the costs of labor, materials, transportation, supervision, engineering, and all other necessary or reasonable expenses.

(n) “*Dwelling*” shall mean any residence, apartment, habitation, or other structure customarily occupied by a single person or family and which contains facilities for the preparation of meals.

(o) “*Resale*” shall mean any change of ownership by sale, or transfer, of real property as recorded by the Sutter County Recorder, except sale or transfer between members of an immediate family. Immediate family being limited to husband-wife, brother-sister, parent-child.

(§ 2, Ord. 703, eff. July 1, 1975; § 2, Ord. 1015, eff. January 1, 1987)

Sec. 6-6.03. Notices.

Notices from the City to a customer shall normally be given in writing and either delivered or mailed to their last known address. When conditions warrant and in emergencies, the City may resort to notification either by telephone or messenger.

(§ 2, Ord. 703, eff. July 1, 1975)

Sec. 6-6.04. Administration.

(a) *Council*. The management, control, and care of the Municipal Water System of the City shall be vested in and under the direction of the Council.

(b) *Finance Director*. The Finance Director shall operate under the direction of the City Manager and shall be in charge of the billing, collecting, and maintenance of the bookkeeping system for the Municipal Water System. The Finance Director shall be responsible for the collection and banking of all money due the City and shall keep controlling records which shall reflect monthly transactions of individual accounts.

(c) *Public Works Director/ Utilities Director*. The Public Works Director/Utilities Director shall operate under the direction of the City Manager and shall perform all the duties connected with, and have supervision of, the water works system, other than the office of bill collection and bookkeeping, and shall perform such other duties as may be required by the City Manager.

(§ 2, Ord. 703, eff. July 1, 1975)

Sec. 6-6.05. Application for regular water service.

(a) *Applications for service to premises with a service connection*. Applicants requesting service to commence during regular business hours will be connected without charge, provided a good payment history has been established with the City. Other customers may be requested to provide payment in advance and/or credit references before connection. There will be a service charge, as determined by [Section 6-6.18](#) of this chapter, for customers requesting turn-on or turn-off to be performed on weekends, holidays, and after hours.

(b) *Applications for water service: No existing service connection.* Applications for regular water service where no main extension is required shall be made upon a form provided by the city.

(c) *Undertaking of applicant.* Each application shall signify the customer's willingness and intention to comply with the regulations relating to the regular water service and to make payment for the water services required.

(d) *Payment for previous service.* An applicant shall not be honored unless payment in full has been made for water services previously rendered to the applicant by the city.

(e) *Delinquencies on accounts in the name of a commercial or residential tenant.* In the event that a tenant of a residential or commercial rental property, where water service is furnished in the tenant's name, leaves delinquent and unpaid water charges when the tenant vacates the premises, the City will require any future service to be only in the name of the property owner and not in the name of any subsequent tenant.

(f) *Tenant application.* A tenant applying for water services must provide to the City a valid signed lease or rental agreement along with identification for all persons listed on the agreement over the age of 18. Identification provided must be in the form of a California Identification Card, Military Identification Card, California Drivers License, or other valid picture identification. The required advanced payment will also be collected at the time of application as described in Section 6-6.10(g).

(g) *Installation of services.* Regular water service shall be installed at the location desired by the applicant. The size of such service shall be finally determined by the City. Service installations may be made only to property abutting on public streets or abutting on such distribution mains as may be constructed in alleys or easements, at the convenience of the City. Services installed in new subdivisions prior to the construction of streets or in advance of street improvements shall be accepted by the applicant in the installed location.

(h) *Changes in customers' equipment.* Customers making any material change in the size, character, or extent of the equipment or operations utilizing water service, or whose change in operation results in a large increase in the use of water, shall immediately give the City written notice of the nature of the change and, if necessary, amend their applications.

(i) *Installation charges.* Charges for installing a water service line from the main to the curb stop shall be established by [Section 6-6.18](#) of this chapter.

(j) *Extension charges.* Extension charges provide for the extension of mains and the installation of necessary fire hydrants within the street right-of-way only, based on property zoned R-1 and R-2 paying one-half (1/2) the cost of an eight (8) inch line and all

other property paying one-half (1/2) the cost of a ten (10”) inch line. The extension charge shall be as set forth in [Section 6-6.18](#) of this chapter.

Corner lots and lots having more than one frontage where water mains exist or are planned shall pay extension fees based on sixty (60%) percent of the first one hundred seventy-five (175) feet of total frontage (as measured to PI’s or property line returns) and one hundred (100) percent of all frontage in excess of the first one hundred seventy-five (175) feet.

This reduction shall apply only to existing corner lots and shall not apply to corner lots which would be created by a new subdivision, parcel map, or development. Such parcels shall pay extension fees based on one hundred (100) percent of all applicable frontage as measured prior to the creation of the side street.

Extension fees will not be applicable to lands within a subdivision or Special Assessment District if the water main was installed at no cost to the City (other than oversizing costs) unless an agreement exists providing for the repayment of extension costs to the original developer or to the Special District.

Where a water main only serves property on one side of the water line, the charge shall be double the current extension fee.

(k) *Connection charges.* The connection charge is designed to recover the capital costs of the treatment plant, reservoirs, and transmission lines.

The charge shall be paid at the owner’s option at either the issuance of a building permit or at certificate of occupancy – not at the date of application for a building permit. The amount of the connection charges to be paid shall be those charges in effect at the time the charges are paid at either the issuance of a building permit or certificate of occupancy. Charges shall be paid at the same time the owner chooses to pay all other development impact fees, if any. If no building permit is to be obtained, the charge shall be collected before service is established.

When a user requires a larger service than that which was previously serving the parcel, the user shall pay the difference between the old service and the new service based on those charges in effect at the time of the request as set forth in [Section 6-6.18](#) of this chapter.

(§ 2, Ord. 703, eff. July 1, 1975, as amended by § 1, Ord. 728, eff. October 20, 1976 and § § 1, 2, Ord. 816, eff. August 1, 1979, and § 2, Ord. 849, eff. July 1, 1980; § 1, Ord. 918, eff. July 1, 1983; § 4, Ord. 1091, eff. March 7, 1990)

Sec. 6-6.06. Main extensions.

(a) *Main extensions.* The following rules are hereby established:

(1) *Determination.* Upon the receipt of any application for water service or request for an application form, the City shall determine whether, in its judgment, a main extension is necessary to provide service. A main extension shall be installed in the manner provided in this section whenever, in the judgment of the City, such main extension is necessary to provide regular water service to the property described in such application or request.

(2) *Applications.* Any owner or subdivider of one or more lots where, in the opinion of the Public Works Director/ Utilities Director, an extension is required shall make a written application . Such application shall contain a legal description of the property to be served, a map showing the location of the proposed connection, and any additional information which may be required.

(3) *Investigations.* Upon the receipt of the application, the City shall make an investigation of the proposed extension and reject, amend, or approve the application.

(4) *City lines.* All extensions provided for in accordance with these regulations shall be and remain the property of the City.

(5) *Dead-end lines.* No dead-end lines shall be permitted, except as approved by the Public Works Director/ Utilities Director.

(6) *Extent and design.* All main extensions shall extend to the far property line of developed property. All main extensions shall be subject to design approval by the City.

(b) *General.* Where the City, at its own expense, extends a main to serve property within the corporate limits of the City, the extension charge shall be governed by the applicable portion of [subsection \(h\)](#) of Section 6-6.05 of this chapter.

(c) *Main extensions by applicants.* If the cost of a main extension is in excess of what the City is prepared to appropriate, it shall be the responsibility of the applicant to provide for the main extension at his own expense to the standards established by the City and in accordance with an agreement for such extension.

(§ 2, Ord. 703, eff. July 1, 1975)

Sec. 6-6.07. Main extensions to subdivisions.

Where water main extensions are required for subdivisions, it shall be the responsibility of the owner or subdivider to pay the entire cost for the complete installation of all water facilities required within the subdivision and for the extension of water transmission mains from the subdivision to the nearest existing main of adequate capacity for the area to be served. Such transmission mains shall be subject to all the requirements set forth in the subdivision regulations (Chapter 2 of Title 8 of this Code) and to any and all modifications and supplements to such regulations. Upon official acceptance by the City, the City shall assume the full ownership, maintenance, and

control of such mains.
(§ 2, Ord. 703, eff. July 1, 1975)

Sec. 6-6.08. General use regulations.

(a) *Number of services per premises.* The applicant may apply for as many fire or landscape services as may be reasonably required for the parcel and approved by the Public Works/Utilities Director provided the pipeline system from each service shall be independent of the others and they shall not be interconnected, except for approved internal loops. The cost of all services shall be borne by the applicant. No connection shall provide service to more than one parcel.

- (i) *Minimum size of service:* Single Family- 1 inch diameter
- (ii) *Residential, single family, and multi family:* Only one domestic service and meter shall be allowed per parcel.
- (iii) *Commercial/Industrial:* Only one domestic service and meter shall be allowed per parcel without approval from the Public Works Director/Utilities Director

(b) *Water waste.* No customer shall permit leaks or the waste of water. When water is wastefully or negligently used on a customer's premises, the City may discontinue the service if such conditions are not corrected.

(c) *Responsibility for equipment on customer premises.* All facilities installed by the City on private property for the purpose of rendering water service shall remain the property of the City and may be maintained, repaired, or replaced by the City without the consent or interference of the owner or occupant of the property. The property owner shall use reasonable care in the protection of the facilities. No payment shall be made for placing or maintaining such facilities on private property. No person shall place or permit the placement of any object in a manner which will interfere with the free access to a service cock or meter box or which will interfere with the reading of the meter. The City is responsible for all piping and equipment up to and including the water meter and check valve. The property owner is responsible for all equipment, piping, and appurtenances downstream of the water meter and check valve.

(d) *Damages to water system facilities.* The customer shall be liable for any damages to the City-owned customer water service facilities when such damages are from causes originating on the premises by an act of the customer or his tenants, agents, employees, contractors, licensees, or permittees, including the breaking or destruction of locks by the customer or others on or near a meter, and any damage to a meter which may result from hot water or steam from a boiler or heater on the customer's premises. The City shall be reimbursed by the customer for any such damage promptly on presentation of a bill. No seal placed on a meter by the City shall be altered or broken except by an authorized employee.

(e) *Control valve on customer property.* The property owner is responsible for all equipment, piping and appurtenances downstream of the water meter and check valve. The property owner shall install a shutoff valve as required by the building code. The customer shall not use the service curb stop to turn water on and off for their convenience.

(f) *Cross-connections.* See Cross Connection Control Program, Section 6-6.21 of this Chapter.

(g) *Direct connections to stationary steam boiler, hydraulic elevators, power pumps, and similar apparatus.* See Cross Connection Control Program, Section 6-6.21 of this Chapter.

(h) *Ingress and egress.* Representatives from the City shall have the right of ingress and egress to the customer's premises at reasonable hours for any purpose reasonably connected with the furnishing of water service.

(i) *Commercial and industrial cooling systems.* See Cross Connection Control Program, Section 6-6.21 of this Chapter.

(j) *Pools and tanks.* See Cross Connection Control Program, Section 6-6.21 of this Chapter.

(k) *Responsibility for equipment.* The customer shall, at his own risk and expense, furnish, install, and keep in good and safe condition all equipment which may be required for receiving, controlling, applying, and utilizing water. The City shall not be responsible for damages to property caused by faucets, valves, and other equipment which is open when water is turned on at the meter, either originally or when turned on after a temporary shutdown.

(§ 2, Ord. 703, eff. July 1, 1975)

Sec. 6-6.09. Meters.

(a) *Installation.* All services as specifically designated by this chapter, or those as ordered so by the Public Works Director/Utilities Director, shall be metered. The sum of money set forth in [subsection \(g\)](#) and [subsection \(h\)](#) of Section 6-6.05 of this chapter shall be paid to the City prior to the installation of the meter facilities to pay all the costs of such installation, except as provided in [subsection \(b\)](#) of this section. The service connection, whether located on public or private property, shall be the property of the City, unless specifically otherwise provided, and the City hereby reserves the right to repair, replace, and maintain such service connection, as well as to remove it upon the discontinuance of service. Meters shall be located as close to the street as possible. Preferably, within 1 foot of back of sidewalk.

(b) *Meters: General.* All services shall be metered. All dwelling units up to and including four (4) per parcel shall have individual water meters per dwelling unit.

(c) *Change in location of meters.* Meters moved for the convenience of the customer shall be relocated at the customer's expense. Meters moved to protect the City's property shall be moved at the City's expense.

(d) *Changes in size of meter.* Changes in the size of the meter shall be made on the request of the customer at his own expense. An allowance not to exceed one-half (1/2) of the current cost of the replaced meter may be made.

(e) *Meter reading.* Meters shall be read as nearly as possible on the same day each month.

(f) *Meter testing.* Upon the deposit of a sum as determined by [Section 6-6.18](#) of this chapter by any consumer, the City shall test the meter. The consumer shall be notified when the test is to be performed and may be represented at such test.

If the meter is found to over-register more than two (2%) percent, an accurate meter shall be installed, the deposit shall be repaid to the depositor and the excess charge for the time service was rendered the customer requesting the test or for a period of six (6) months, whichever shall be the lesser, shall be refunded to the customer.

If the meter is found to be correct or to register less than the actual quantity of water passing through it, the deposit shall be retained by the City.

If a meter tested at the request of a customer is found to be more than twenty-five (25%) percent slow, in the case of domestic services, or more than two (2%) percent slow, for other than domestic services, the City may bill the customer for the amount of the undercharge based upon corrected meter readings for the period, not exceeding six (6) months, the meter was in use.

All meters shall be tested prior to installation, and no meter which registers more than two (2%) percent fast shall be installed.

(g) *Nonregistering meters.* If a meter is found to be not registering, the charges for service shall be at the minimum monthly rate, or based on the estimated consumption for a comparable period, or by such other method as is determined by the City, and its decision shall be final.

(§ 2, Ord. 703, eff. July 1, 1975; § 3, Ord. 849, eff. July 1, 1980; § 1, Ord. 918, eff. July 1, 1983; § 1, Ord. 1015, eff. January 1, 1987; § 3, Ord. 11-92, eff. July 2, 1992; § 3, Ord. 07-98, eff. September 17, 1998; § 3, Ord. 02-00, eff. July 1, 2000)

Sec. 6-6.10. Billing.

(a) *Billing period.* The regular billing period shall be monthly for all services. Unmetered services shall be payable in advance.

(b) *Opening and closing bills.* Opening and closing bills for less than the normal billing period may be prorated. Closing bills may be estimated by the City for the final period as an expediency to permit the customer to pay the closing bill prior to the time service is discontinued. See Section 6-6.05 for requirements for opening an account.

(c) *Payment of bills.* Bills for water service and sanitary sewer service shall be rendered at the end of each billing period. Bills shall include the charges for water and sewage and shall be inseparable. Delinquency in any part of the bill shall be sufficient cause for the discontinuance of water service. Bills shall be payable on presentation. On each bill for water and sewer service rendered by the City shall be printed substantially the following: "If this bill is not paid on or before the 45th day after the bill was sent, service may be discontinued. A delinquency charge will be made and collected prior to renewing service following a discontinuance."

(d) *Separate billing.* Separate bills may be rendered for any service which has a separate connection to a City line. All meters shall be billed separately.

(e) *Responsibility.* Where there is more than one usage charge on a single parcel being served through a single service, there shall be charged and collected from the owner or person in responsible charge, the water rate for the entire parcel.

(f) *Liability for services rendered.* The owner of single and multifamily residential property served by the City shall be charged with, and shall be personally responsible for, the water bills incurred for water service to such property. The owner of non-residential property served by the City may assign responsibility for the water bills incurred for water service to such property to the owner's tenants or lessees.

(g) *Residential Rental Account:* Advanced payment deposit of \$60 is required. If after a one year period, the customer has not had any delinquent billings, the deposit amount will be applied as credit/payment to the account. In the event that the customer has closed their account with the City prior to the advance payment deposit being refunded, it will be applied to any final billing first with any portion remaining then being refunded to the customer.

(h) *Delinquent charges.* Where a rental property owner has past due charges for utility services, no new account can be established for service at the same property until payment is rendered for those same charges.

(§ 2, Ord. 703, eff. July 1, 1975; § 4, Ord. 849, eff. July 1, 1980; § 1, Ord. 918, eff. July 1, 1983)

Sec. 6-6.11. Discontinuance of service.

(a) *Discontinuance of service for nonpayment.* Service may be discontinued for the nonpayment of bills on or after the forty-fifth (45th) day after the bill was sent. The failure of the City to send, or any such person to receive, such notice shall not affect the

City's power hereunder. A customer's water service may be discontinued if water service furnished at a previous location is not paid for within the time fixed in this subsection for the payment of bills. If a customer receives water service at more than one location, and the bill for service at any one location is not paid within the provided time for payment, water service at all locations may be turned off. Domestic service, however, shall not be turned off for the nonpayment of bills for other classes of service (landscape or fire service).

(b) *Delinquency charges.* A delinquency charge as determined by [Section 6-6.18](#) of this chapter shall be made and collected on the date of scheduled shut-off and thereafter for nonpayment or other violations of this chapter. When bills are delinquent, the City may demand that the full amount of both delinquent and current bills be paid.

(c) *Unsafe apparatus.* Water service may be refused or discontinued to any premises where apparatus or appliances are in use which might endanger or disturb the service to other customers.

(d) *Fraud or abuse.* Service may be discontinued if necessary to protect the City against fraud or abuse.

(e) *Noncompliance with regulations.* Service may be discontinued for noncompliance with the provisions of this chapter or any other laws or regulations relating to water service.

(f) *Vacation of premises.* Customers desiring to discontinue service shall so notify the City in order to be relieved of continued liability for service charges.

(g) *Short term disconnections.* Upon notification to the City, short term disconnections shall be made where the time involved comprises multiples of the minimum billing period.

(§ 2, Ord. 703, eff. July 1, 1975; § 5, Ord. 849, eff. July 1, 1980; § 1, Ord. 918, eff. July 1, 1983)

Sec. 6-6.12. Collection by suit.

(a) *Suits.* All unpaid rates and charges provided for in this chapter may be collected by suit.

(b) *Costs.* The defendant shall pay all the costs of suit in any judgment rendered in favor of the City.

(§ 2, Ord. 703, eff. July 1, 1975)

Sec. 6-6.13. Public fire protection.

(a) *Use of fire hydrants.* Fire hydrants shall be for use by the City or by organized fire protection agencies. Other persons desiring to use fire hydrants for any purpose shall first obtain written permission from the City prior to use and shall operate the fire hydrant in accordance with instructions issued by the City. Unauthorized use of fire hydrants shall be prosecuted according to law and are subject to enforcement measures established in Sec 6-6.20.

(b) *Moving fire hydrants.* When a fire hydrant has been installed in the location specified by the proper authority, the City shall have fulfilled its obligation. If a property owner or other person desires a change in the location of the fire hydrant, he shall bear all costs of such changes, without refund. Any change in the location of a fire hydrant shall be approved by the City.

(c) *Public fire protection service.* Where water is furnished for public fire protection through the public distribution system, within and outside the corporate limits of the City, the City may make a charge for such protection.
(§ 2, Ord. 703, eff. July 1, 1975; § 4, Ord. 11-92, eff. July 2, 1992)

Sec. 6-6.14. Private fire protection service.

(a) *Adequate prevention: General.* A private fire protection service connection, two (2") inch pipe size and larger, shall be furnished only if adequate provision is made to prevent the use of water from such services for purposes other than fire extinguishing.

(b) *Unlawful connections.* No person shall make, or allow to exist, any connection to any portion of any line used exclusively for unmetered private fire service or for any other purpose.

(c) *Check valves and bypass meters.* There shall be installed on all fire line connections, two (2") inch pipe size and larger, used exclusively for unmetered private fire services, a detector check valve of a type approved by the National Board of Fire Underwriters and equipped with a bypass meter. Such installations shall be located within public streets, alleys, rights-of-way, or easements.

(d) *Payment.* If the City installs the private fire protection service, the applicant shall make a deposit, in advance, of the estimated cost of installing the private fire protection service. The charge for such installation shall be based on the City's total cost of all labor, materials, equipment, and other costs incidental to the installation, including the cost of the detector check valve and bypass meter assembly if installed by the City.

(e) *Title.* The service connection and all equipment appurtenant thereto, including the detector check valve and bypass meter assembly, shall be the sole property of the City, and no part of the cost shall be refunded to the applicant.

(f) *Use.* The unmetered private fire service line shall be used only for fighting accidental fires and for testing the fire prevention system. No charge shall be made for water used for these two (2) purposes.

Water lost through leakage, or used in violation of these regulations, shall be paid for by the applicant at double the rate charged for general use.

The City shall read such bypass meters for the purposes of detecting any unauthorized use of water through the system. If water is used in violation of these regulations, the City may, at its option, discontinue and remove the service.

(g) *Rates.* There will be no monthly service charge for fire protection systems. (§ 2, Ord. 703, eff. July 1, 1975)

Sec. 6-6.15. Temporary service.

(a) *Duration of service.* Temporary service connections shall be disconnected and terminated within six (6) months after their installation, unless an extension of time is granted in writing by the City.

(b) *Deposits.* A deposit shall be paid for temporary service per [Section 6-6.18](#) of this chapter. Upon the discontinuance of the service, the actual cost of installing and removing the facilities required to furnish such service, exclusive of the cost of salvageable materials, as determined by the City, an adjustment will be made as an additional charge, refund, or credit.

If service is supplied through a fire hydrant, the applicant shall be charged a flat charge per connection for the installation, moving and removal of service facilities including the meter and a deposit as determined by [Section 6-6.18](#) of this chapter. The City will be notified when the service is no longer required. Billing for the usage of water will be at the metered rate schedule and deducted from the deposit, or an additional billing will be made if the usage exceeds the amount of the deposit.

(c) *Installation and operation.* All facilities for temporary service to the customer connection shall be made by the City and shall be operated in accordance with its instructions.

(d) *Responsibility for meters and installation.* The customer shall use all possible care to prevent damages to the meter or any other loaned facilities of the City which are involved in furnishing the temporary service from the time they are installed until they are removed, or until forty-eight (48) hours after notice in writing has been given to the City that the contractor or other person is through with the meter and the installation. If the meter or other facilities are damaged, the cost of making repairs shall be paid by the customer.

(e) *Temporary service from fire hydrants.* If temporary service is supplied through a fire hydrant, a permit for the use of the fire hydrant shall be obtained from the City. It is specifically prohibited to operate the valve of any fire hydrant other than by the use of a spanner wrench designed for such purpose.

(f) *Unauthorized use of hydrants.* Tampering with any fire hydrant, or the unauthorized use of water there from, or for any other purpose, shall be unlawful and are subject to enforcement measures established in Sec 6-6.20.

(g) *Rates.* The rates for temporary service shall be in accordance with regular service. The minimum charge for water shall be as set forth by [Section 6-6.18](#) of this chapter.

(h) *Credit.* The applicant shall pay the estimated cost or service in advance or shall be otherwise required to establish credit.
(§ 2, Ord. 703, eff. July 1, 1975; § 6, Ord. 849, eff. July 1, 1980; § 1, Ord. 918, July 1, 1983)

Sec. 6-6.16. Vacancies.

If vacancies occur in any unmetered housing units, other than those on a reduced rate with no credit for vacancies, and if the water pipelines within and/or without any building or combination of buildings have been provided by owners with shutoff valves, there shall be no charge for such unit or units after such valve or valves have been closed and sealed by the City. The type of shutoff valves to be installed shall be approved by the City, and they shall be located in readily accessible places.

Where there are unusual circumstances which result in a substantial hardship upon the property owner from the strict application of the provisions of this section, the City Manager may grant a variance to these provisions; provided, however, such variance shall be conditioned to the faithful and accurate reporting of vacancies and service renewals which shall be checked by the City and verified in lieu of the turning on or off of the shutoff valve and, provided, further, such variance shall be revoked automatically if it is found by the City that service renewals have not been promptly, accurately, and faithfully reported by the owner or person in responsible charge, and such persons shall not be allowed to declare any vacancies unless each unit is equipped with a shutoff valve as specified in this section.

(§ 2, Ord. 703, eff. July 1, 1975; § 3, Ord. 816, eff. August 1, 1979; § 7, Ord. 849, eff. July 1, 1980; § 1, Ord. 918, eff. July 1, 1983)

Sec. 6-6.17. Rates for senior citizens and eligible disabled persons.

(a) *Eligible persons.* The persons herein listed and who are billed for water service, and in whose name the subject water account is listed, shall be eligible for the

rate structure hereinafter set forth, notwithstanding the provisions of [Section 6-6.16](#) of this Code, and shall pay rates as determined by [Section 6-6.18](#) of this chapter.

(1) Those persons sixty-five (65) years of age and older, who are responsible for and are paying the water bill for the dwelling within which they reside.

(2) Those persons permanently disabled, who are responsible for and who are paying the water bill for the dwelling within which they reside.

Verification of eligibility for those persons sixty-five (65) years of age and older shall be determined by reference to the applicant's Medicare Card or other appropriate and satisfactory documentation.

Permanently disabled as herein used shall mean those persons who are suffering from a permanent disability which precludes or impairs their ability to earn a living and shall be determined either by the applicant holding a Medicare Card which reflects that he is in fact permanently disabled or other appropriate and satisfactory documentation which supports the applicant's claim of disability.

(§ 1, Ord. 820, eff. August 1, 1979 and § 8, Ord. 849, eff. July 1, 1980; § 1, Ord. 918, eff. July 1, 1983)

Sec. 6-6.18. Summary of charges.

(a) *Charges for installing a water service line from the main to the curb stop:*

1" service without meter-	\$3,400.00
1" meter-	\$ 286.00
1 ½" service without meter-	\$4,115.00
1 ½" meter-	\$ 440.00
2" service without meter-	\$4,386.00
2" meter-	\$ 596.00

Service lines larger than two inches (2") shall be charged for actual time and materials (service and/or meter). A deposit will be required based on the cost estimate furnished by the Public Works Department.

(b) *Install meter on existing service:*

Will be charged per 6-6.18(a) meter fees

(c) *Extension charges (Section 6-6.05 (h)):*

Parcels zoned	Extension fee per front foot*
R-1 and R-2	\$48.03
All others	\$51.82

* The indicated extension fee includes a surcharge of \$4.00 per front foot for fire hydrant installations where the City has installed, or plans to install, street fire hydrants serving the property.

(d) *Connection charges (Section 6-6.05(I)):*

<i>Meter Size</i>	<i>Maximum Continuous Flow</i>	<i>Factor</i>	<i>Fee</i>
1"	25 GPM	1.00	\$6,489
1 1/2"	50 GPM	2.00	\$12,987
2"	100 GPM	4.00	\$25,956
3"	450 GPM*	18.00	\$116,802
	320 GPM**	12.80	\$83,059
4"	1000 GPM*	40.00	\$259,560
	575 GPM**	23.00	\$149,247
6"	2000 GPM*	80.00	\$519,120
	1250 GPM**	50.00	\$324,450
8"	3000 GPM*	120.00	\$778,680
	1875 GPM**	75.00	\$486,675

* Positive Displacement Meter

** Compound Meter

Meter type for connections two (2") inch and larger will be determined by Yuba City after consultation with the new customer. Any customer that will utilize, in any month, totaling more than five (5%) percent of the maximum continuous meter rating shall have a separate connection charge based on the customer's individual usage characteristics.

Any customer that purchases a connection charge prior to July 1, 2000, may complete the project at any time, and is not subject to connection charge rate adjustments or credit of interest. Any connection charges paid between July 1, 2000 and December 31, 2009, and the project is completed within eighteen (18) months, will not be subject to any additional connection charges or interest credits. A project is deemed completed when all building permits are paid and a final inspection report is issued. Any connection charges paid between July 1, 2000 and December 31, 2009 and the project is not completed within eighteen (18) months will be subject to the connection charge in effect at the time of project completion, and will be entitled to interest credit as to any connection charge increases. Interest will only be allowed as a credit toward connection charges increases and, in no event, shall customer be entitled to any refund of said interest. Interest will accrue, beginning eighteen (18) months after the initial purchase, based on the initial connection charge payment. Interest payment will be credited semi-annually on January 1st and July 1st based on the previous average semi-annual rate of the Local Agency Investment Fund administered by the California State Treasury. Connection permits or charges cannot be sold or transferred between any party other than Yuba City.

- (e) Meter test deposit (Section 6-6.09 (f)): \$50.00
- (f) After hours service charge: \$93.00
- (g) Delinquency charges \$10.00
(Section 6-6.15(b):or 10% of the outstanding bill (whichever is greater)
- (h) Temporary service deposit \$100.00
(Section 6-6.15(b)): per inch of service desired

- (i) *Fire hydrant use* (Section 6-6.15(b)):
 - Connection and removal of meter – \$58.00
 - Move meter from one hydrant to another – \$58.00
 - Deposit (for usage charge): \$175.00
 - Deposit (for meter): \$850.00

Minimum monthly usage charge:

Metered	5,000 cubic feet at current rate
Flat rate	\$58.00

(j) *Water service rates:*

(1) Quantity charges. A rate per one hundred (100) cubic feet is hereby established for all metered services, with a minimum billing as set forth in paragraph (2) of this subsection as follows: \$1.0851 per 100 cubic feet

(2) Minimum meter rates:

	Minimum Rate	Minimum Quantity
(i) Single family dwelling and duplex (two (2) dwellings per parcel), each dwelling:		
Charge	\$17.36	1,600 cubic feet
(ii) Multiple dwellings per unit:		
Charge	\$10.85	1,000 cubic feet
Three (3) or more apartments, mobile homes, or trailers on one (1) parcel, per unit, no credit for vacancy. If billed individually, rate shall be the same as single family dwelling.		

- (i) Commercial, industrial and other non-dwelling units per unit:

<i>Meter Size</i>	<i>Minimum Usage Cubic Feet</i>	<i>Minimum Charge</i>
1"	1,600	\$17.36
1 1/2"	3,200	\$34.72
2"	10,240	\$111.11
3"*	28,800	\$312.51
3"**	20,480	\$222.23
4"*	64,000	\$694.46
4"**	36,800	\$399.32
6"*	128,000	\$1388.93
6"**	80,000	\$868.08
8"*	192,000	\$2,083.39
8"**	120,000	\$1,302.12

*Positive Displacement Meter

**Compound Meter

(iv) Multiple commercial with separate buildings on one (1) parcel per unit:

\$17.36 1,600 cubic feet

(v) Combination of commercial, industrial, and dwelling units on one (1) parcel with a single meter:

Minimum of \$17.36 for 1,600 cubic feet single-family and \$17.36 for 1,600 cubic feet commercial industrial

(3) Unmetered service. The following monthly charges are hereby established for unmetered services of the following types:

(i) Single-family dwellings: \$32.50 per unit

(ii) Multiple dwellings, apartments, mobile homes and trailers;

A. If billed individually: \$19.98 per unit

B. Two (2) or more units on one (1) parcel when the owner is responsible for the water and sewer charges for all units. All units shall be billed one (1) account and on the reduced sewer rate. Charge per unit with no credit for vacancies: \$12.97 per unit

(iii) Commercial, industrial and other non-dwelling units: \$22.53 per unit

(iv) Multiple commercial with separate buildings on one (1) parcel: \$19.98 per unit

(k) *Senior citizen rates* (Section 6-6.17):

(1) Minimum meter rates. The minimum monthly rate for water service for those eligible persons established by Title 6, Chapter 6, Article 17, are hereby fixed at the following rates per month, the payment of which shall entitle said eligible person to an amount of water not to exceed the following:

	<i>Minimum Rate</i>	<i>Minimum Quantity</i>
(i) Single-family dwellings:		
	\$11.49	1,600 cubic feet
(ii) Multiple dwelling per unit (apartment, mobile home or trailer on a parcel in conjunction with a single-family dwelling):		
	\$7.18	1,000 cubic feet

(2) Quantity charges. A rate per one hundred (100) cubic feet is hereby established for all eligible resident metered services with a minimum billing as set forth in section 6-6.18 (k) (1) as follows:

\$0.718300 per 100 cubic feet

(3) Unmetered service. The following monthly charges are established for unmetered services for eligible persons as hereinabove defined of the following types:

(i) Single-family dwellings: \$21.66 per unit

(ii) Multiple dwellings (apartments, mobile homes and trailers) non-reduced: \$7.42 per unit

(l) Meter surcharge for unmetered services. Reserved

(m) Not used

(n) *Annual adjustments.* Annually on July 1 of each year fees and charges in the following sections shall be adjusted based on the previous April value of the Twenty City Average of Engineering News Record Construction Index: 6-6.18 (a), (b), (c) and (d).

Annually on October 1 of each year fees and charges in the following sections shall be adjusted based on the previous April value of the California Consumer Price Index (CPI) for all urban consumers: 6-6.18 (e), (f), (h), (i) and (r).

Annually on October 1 of each year fees and charges in the following sections shall be adjusted based on the previous April value of the California Consumer Price Index (CPI) for all urban consumers or four and one-half (4.5%) percent whichever is greater: 6-6.18 (j), (k), (o) (1) and (o)(2).

(o) *Charges for groundwater service.* The following monthly rates are applicable to all customers primarily serviced with groundwater (previous customers of Hillcrest Water Company and future customers primarily serviced by

groundwater). If customers are converted to primary surface water supply, rates in Section 6-6.18 (a) to (c), (e) to (j), (l) to (n) and (o)(4) shall apply.

(1) Flat rate residential and commercial water service connections not larger than one (1") inch in diameter.

	<i>Charge</i>
Single-family residential unit	\$20.69
Including premises, not to exceed 13,000 square feet	
For additional unit on same premises	\$9.90
For each swimming pool	\$3.37
For each 100 square feet of premises in excess of 13,000 square feet	\$1.00

(2) The following quantity rates are applicable to all metered groundwater service:

	<i>Charge</i>
For all water delivery per 100 cubic feet	\$.0560
Monthly service charge, per meter	
5/8 x 3/4- meter	\$9.58
3/4 inch meter	\$9.58
1 inch meter	\$11.05
1 1/2 inch meter	\$12.65
2 inch meter	\$16.13
3 inch meter	\$39.90
4 inch meter	\$66.51

The service charge is a readiness to serve charge that is applicable to all metered service and to which is to be added the monthly charge computed at the quantity rates.

(3) All portions of Title 6 Chapter 6 shall apply to all customers primarily serviced with groundwater (previously customers of Hillcrest Water Company); except for 6-6.18 (d) and (j).

(4) The following applies to charges for Hillcrest Water System groundwater customers in Regions 1, 2 and 3 that have been permanently connected to surface water distribution system. A surcharge to the monthly bill as described below shall take effect no sooner than thirty (30) days after the conversion to the surface water distribution system. The surcharge may begin at different times for different customers as customers are converted to the surface water distribution system over a period of time. The surcharge shall apply to an account for two hundred forty (240) months unless a customer elects to pay off the remaining principal balance of the surcharge earlier. After two hundred forty (240) months or after prepayment of the remaining principal balance the surcharge shall be removed from the monthly bill. The surcharge is not subject to cost index increases. The surcharge may be included in the base minimum monthly bill total, or as an identified monthly surcharge on the bill. The

surcharge shall be in an amount sufficient to recover the Hillcrest Water System Regions 1, 2 and 3 share of actual cost of construction of surface water improvements for Hillcrest Water System Regions 1, 2 and 3 as specified in the staff report to the City Council dated September 30, 2008 but not larger than the amounts stated in the notice of the proposed surcharge approved by the Council on that same date and shall be as follows:

- (i) Customers who have water meters as of November 24, 2008:
 - i. 1 inch or smaller meter shall not exceed \$17.00 per month for 240 months or a one time surcharge of \$3070.00
 - ii. 1.5 inch meter shall not exceed \$34.00 per month for 240 months or a one time surcharge of \$6130.00
 - iii. 2 inch meter shall not exceed \$109.60 per month for 240 months or a one time surcharge of \$19770.00
 - iv. 3 inch meter shall not exceed \$217.40 per month for 240 months or a one time surcharge of \$39220.00
 - v. 4 inch meter shall not exceed \$393.85 per month for 240 months or a one time surcharge of \$71050.00
 - vi. 6 inch meter shall not exceed \$849.15 per month for 240 months or a one time surcharge of \$153195.00
- (ii) Customers who do not have water meters as of November 24, 2008. If grants are received for full cost of meter installation customers who do not have a water meter as of November 24, 2008 Section 6-6.18(o) (4) (i) charges shall apply:
 - i. 1 inch or smaller meter shall not exceed \$19.80 per month for 240 months or a one time surcharge of \$3570.00
 - ii. 1.5 inch meter shall not exceed \$39.60 per month for 240 months or a one time surcharge of \$7130.00
 - iii. 2 inch meter shall not exceed \$115.75 per month for 240 months or a one time surcharge of \$20880.00
 - iv. 3 inch meter shall not exceed \$265.45 per month for 240 months or a one time surcharge of \$47870.00
 - v. 4 inch meter shall not exceed \$453.05 per month for 240 months or a one time surcharge of \$81700.00
 - vi. 6 inch meter shall not exceed \$928.24 per month for 240 months or a one time surcharge of \$167395.00
- (iii) For customers whose parcels have already paid the impact fee as of November 24, 2008, the surcharge shall not apply.

(p) *Dog recreation areas—Waiver of fees.* All of the applicable Yuba City fees associated with the dog recreation area, including, but not limited to, the water connection and water service meter fees are hereby waived.

(q) *Fee for private well customers—From January 1, 2010 through June 30, 2010, any parcel currently served with a private well and City water lines are in the street in front of the parcel to be served:*

- (i) May connect to the surface water system at costs described in Section 6-16.18 (o)4.
- (ii) Extension charges in Section 6-6.18(c) shall be waived unless there is an existing reimbursement agreement in place.
- (iii) All other fees associated with the installation of a water service (Section 6-6.18 (a) and (b)) shall apply.
- (iv) Connection charges as described in Section 6-6.18(d) shall not apply.

From January 1, 2010 through June 30, 2010, any parcel currently served with a private well and does not have City water lines in the street in front of the parcel to be served:

- (i) May connect to the surface water system at costs described in Section 6-16.18 (o)4.
- (ii) Extension charges in Section 6-6.18(c) shall apply.
- (iii) All other fees associated with the installation of a water service (Section 6-6.18 (a) and (b)) shall apply.
- (iv) Connection charges as described in Section 6-6.18(d) shall not apply.

(r) Fees for Cross Connection Control Program

- (1) Application for Backflow Tester: \$50.00
- (2) Backflow Test Tags: \$10.00 per Tag
- (3) Air Gap Inspection/Sticker: \$50.00 per vehicle/equipment piece

(§ 2, Ord. 918, eff. July 1, 1983; § 3, Ord. 1015, eff. January 1, 1987; § 2, Ord. 1069, eff. July 1, 1989; § 5, Ord. 1091, eff. March 7, 1990; § 2, Ord. 11-92, eff. July 2, 1992; § 2, Ord. 07-98, eff. September 17, 1998; § 2, Ord. 02-00, eff. July 1, 2000; § 1, Ord. 02-01, eff. June 14, 2001; § 1, Ord. 03-01, eff. May 15, 2001; § 2, Ord. 04-01, eff. July 19, 2001; § 1, Ord. 019-03, eff. January 1, 2004; § 1, Ord. 009-04, eff. August 5, 2004; § 2, Ord. 011-07, eff. October 4, 2007; § 1, Ord. 002-09, eff. March 5, 2009)

Sec. 6-6.19. Emergency water restrictions.

Upon declaration of the City Council that water supply conditions are such that they dictate and justify the implementation of emergency water restrictions, the following mandatory regulations shall apply to the use of water from the City's Municipal Public Water Supply system:

- (a) Lawn watering is permitted only as follows:
 - (i) Wednesdays and Saturdays for those whose address ends with an even number;

- (ii) Thursdays and Sundays for those whose address ends with an odd number; and
 - (iii) New lawns may be watered three (3) times each day for the first three (3) weeks after planting provided that notification is given to the City Public Works Department of the new planting either at the time of planting or as soon thereafter as is practicable.
- (b) Cleaning of sidewalks, driveways, parking lots, buildings and other impermeable surfaces by the use of water is prohibited.
- (c) All evaporative coolers must be of the recirculating type.
- (d) Public agencies and/or commercial/industrial companies using City water to irrigate large turf areas greater than 0.5 acres, shall submit an irrigation schedule for approval by the Public Works Director/Utilities Director. This schedule shall provide for a reduction of water use based on a percentage of previous usage. The actual percentage and base year of usage shall be established by the Public Works Director/Utilities Director as approved by the City Council and will be in accordance with the severity of the water shortage declared by the City Council.
- (e) An automatic shutoff nozzle shall be attached to all hoses for all uses except lawn watering as set forth in paragraphs (a) and (d) above. The use of free flowing hoses is prohibited.
- (f) Car washing will be allowed on the owner's residential property. All other car washing must be done at a commercial car wash facility. Washing of cars in parking lots or other commercial or industrial areas is prohibited except for vehicles owned by the person or agency who leases or owns said property.
- (g) Leaking customer pipes, sprinklers, or other water facilities shall be repaired promptly, and not later than five (5) days after being notified of such leak by the City. In the event of a severe leak, as determined by the City, the repairs shall be made in the shortest time reasonably possible.
- (h) Commercial nurseries will be allowed to apply water to plant materials located on their property as needed to maintain said plant material. Watering shall be by a method which does not allow the waste of water. This permission does not apply to turf or lawn material. Turf or lawn materials shall be watered in accordance with either paragraph (a) or (d) of this section.
- (i) Watering of trees, shrubs, hedges and other plant materials excepting lawns shall be done with a drip system, by a hand held hose with an automatic shutoff nozzle, or by use of a water bucket. There shall be no runoff caused by watering of these plant materials.

- (j) Decorative water facilities such as ponds or fountains are prohibited unless they are equipped with a recycling device approved by the City.
- (k) All restaurants and other food and drink establishments shall furnish water only at the request of the customer.
- (l) Allowing water to run off beyond the owners property lines is prohibited.

(§ 2, Ord. 03-91, eff. April 17, 1991; § 1, Ord. 08-91, eff. June 19, 1991)

Sec. 6-6.20. Enforcement measures.

(1) For each violation of any of the provisions/regulations set forth in this chapter, there shall be assessed against the responsible party for the property on which the violation occurs, i.e. the owner, lessee, person in possession of said property, or the person reflected in the Yuba City utility records as the party to whom the water bill is sent, the following penalties:

- (a) First violation: A written warning of such violation.
- (b) Second violation: Fifty and no/100ths (\$50.00) Dollars surcharge which shall appear on the next monthly water billing.
- (c) Third violation: One hundred and no/100ths (\$100.00) Dollars surcharge which shall appear on the next monthly water billing.
- (d) Fourth and subsequent violations: Two hundred- fifty and no/100ths (\$250.00) Dollars surcharge which shall appear on the next monthly water billing.
(§ 3, Ord. 03-91, eff. April 17, 1991)

(2) For each violation of any of the cross-connections or other provisions/regulations as set forth in [Section 6-6.08](#) or [6-6.21](#) there shall be assessed against the responsible party for the property on which the violation occurs, i.e. the owner, lessee, person in possession of said property, or the person reflected in the Yuba City utility records as the party to whom the water bill is sent, the following penalties:

- (a) First violation: A written warning of such violation and five times the value of the water.
- (b) Second violation: Five-hundred and no/100ths (\$500.00) Dollars surcharge and ten times the value of the water, which shall appear on the next monthly water billing.
- (c) Third and subsequent violation: Five thousand and no/100ths (\$5,000.00) Dollars surcharge and ten times the value of the water, which shall appear on the next monthly water billing.

Sec. 6-6.21. Cross-Connection Control Program.

A Cross-Connection Control Program is established as provided in this section.

1. Purpose/References/Case History

A. Purpose

1. To protect the public water supply against actual or potential cross-connection by isolating within the premises contamination that may occur because of some undiscovered or unauthorized cross-connection on the premises;
2. To eliminate existing connections between drinking water systems and other sources of water that are not approved as safe and potable for human consumption;
3. To eliminate cross-connections between drinking water systems and sources of contamination;
4. To prevent the making of cross-connections in the future;
5. This Section is adopted pursuant to the State of California Code of Regulations, Title 17&22 Public Health, and entitled "Regulations Relating to Cross-Connections". Requiring the water supplier to administer a program to ensure cross-connection devices are installed, maintained and tested annually.

B. References

1. Under Public Law 99-339 the Safe Drinking Water Act inclusive of amendments
2. California Plumbing Code Chapter 6 602.0 602.1 602.2 602-3 602-4
3. California Administrative Code Title 17 & 22
4. City of Yuba City standard details 408 408A 410 413
5. Manual of Cross Connection Control, 9th Edition, published by University of Southern California Foundation for Cross-Connection Control and Hydraulic Research

C. Case History

Manual of Cross Connection Control, 9th Edition, published by University of Southern California Foundation for Cross-Connection Control and Hydraulic Research

2. Definitions

For the purposes of this Section, the following definitions shall apply:

- A. Air-Gap Separation (AG). A physical break between a supply pipe and a receiving vessel. The air-gap shall be at least double the diameter of the supply pipe measured vertically above the top rim of the vessel, in no case less than one inch.
- B. Approved Backflow Prevention Device. "Approved backflow prevention device" means devices which have passed laboratory testing and field evaluation tests performed by a recognized testing organization which has demonstrated their competency to perform such tests to the (AWWA) American Water Works Association and possesses a valid certification.
- C. Approved Water Supply. "Approved water supply" means any water supply whose potability is regulated by a state or local health agency including water supplier.
- D. Auxiliary Water Supply. "Auxiliary water supply" means any water supply on or available to the premises other than the approved water supply.
- E. AWWA Standard. "AWWA standard" means an official standard developed and approved by the American Water Works Association (AWWA).
- F. Backflow. "Backflow" means a flow condition, caused by a differential in pressure, that causes the flow of water or other liquids, gases, mixtures or substances into the distributing pipes of a potable supply of water from any source or sources other than an approved water supply source, whether caused by back siphonage, backpressure or otherwise.
- G. Contamination. "Contamination" means a degradation of the quality of the potable water by any substance which creates a hazard to the public health or which may impair the usefulness or quality of the water.
- H. "Cross-connection," "Cross Connection", means any actual or potential connection between a potable water system used to supply water for potable purposes and any source or system containing unapproved water or a substance that is not or cannot be approved as safe, wholesome and potable. By-pass arrangements, jumper connections, removable sections, swivel or changeover devices or any other devices through which backflow could occur, shall be considered to be cross-connections.
- I. Double Check-Valve Assembly. "Double check-valve assembly" means an assembly of at least two independently acting check-valves including tightly closing shutoff valves on each side of the check-valve assembly and test cocks available for testing the water-tightness of each check-valve.
- J. Health Agency. "Health agency" means the California Department of Public Health.
- K. Local Health Agency. "Local health agency" means the Sutter County Environmental Health.

L. Person. "Person" means an individual, corporation, company, association, partnership, municipality, public utility or other public body or institution.

M. Premises. "Premises" means any and all areas on a property which is served or has the potential to be served by the public water system.

N. Public Water System means water provided by the City of Yuba City.

O. Reclaimed Water. "Reclaimed water" means a wastewater which as a result of treatment is suitable for uses other than potable use.

P. Reduced Pressure Principle Backflow Prevention Assembly. "Reduced pressure principle backflow prevention assembly" means an assembly incorporating two or more check-valves and an automatically operating differential relief valve located between the two checks, a tightly closing shut-off valve on each side of the check-valve assembly, and equipped with necessary test cocks for testing.

Q. Service Connection. "Service connection" means and refers to the point of connection of a water user's piping to the water supplier's facilities.

R. Unprotected Cross-Connection. "Unprotected cross-connection" means any cross-connection not outfitted with an air-gap separation, double check-valve assembly or reduced pressure principle backflow prevention assembly.

S. Water Supplier. "Water supplier" means The City of Yuba City who operates the approved water supply system. For the purposes of this document, the term "water supplier" shall mean the City.

T. Water User. "Water user" means any person obtaining water from an approved water supply system of the City of Yuba City.

3. Cross-connection protection requirements.

A. General Provisions.

1. It is unlawful for any person, firm or corporation at any time to make or maintain or cause to be made or maintained, temporarily or permanently, for any period of time whatsoever, any cross-connection between plumbing pipes of water fixtures being served with water by the City and any other source of water supply, or to maintain any sanitary fixture or other appurtenances or fixtures which by reason of their construction may cause or allow backflow of water or other substances into the water supply system of the City and/or the service of water pipes or fixtures of any water user of the City.

2. Unprotected cross-connections with the City's water supply are prohibited.

3. Whenever the water supplier, health agency or local health agency determines that backflow protection is required on a premises, the City will require the water user to install an approved backflow prevention device at his/her expense for continued services or before a new service will be granted or continued.

4. Wherever the Water supplier, health agency or local health agency determines that backflow protection is required on a water supply line entering a water user's premises, then any and all water supply lines from the City's mains entering such premises, buildings or structures shall be protected by an approved backflow prevention device, to be installed at the water user's expense. The type of device to be installed will be in accordance with the requirements of this section.

5. Every fire protection system served by the water supplier shall be separately connected to the public water system, and not interconnected to plumbing systems serving domestic or irrigation water unless approved by the Public Works Director/Utilities Director.

6. All services to commercial or industrial users who apply for new construction or remodel permits shall at that time upgrade all service connection points to current standards. This includes Domestic /Irrigation /Fire water service connection points.

7. Any current device that does not meet current standards must be replaced. The water user must retrofit their assembly to meet current standards at the water user's expense.

8. Backflow preventive assemblies shall have at least the same cross-sectional area as the water meter or less than the cross sectional area with exception of those in parallel. In those instances where a continuous water supply is necessary and, two (2) sets of backflow preventive assemblies shall be installed in parallel, if the water supply cannot be temporarily interrupted for the testing of or the repair of the assemblies.

9. *Cross-connections.* The customer shall comply with State and federal laws governing the separation of dual water systems or installations of backflow protective devices to protect the public water supply from the danger of cross-connections. Backflow protective devices shall be installed as near the service as possible and shall be open to tests and inspections by the City. Plans for the installation of backflow protective devices shall be approved by the City prior to installation.

10. In special circumstances, where the customer is engaged in the handling of especially dangerous or corrosive liquids or industrial or process waters, the City may require the customer to eliminate certain plumbing or piping connections as an additional precaution and as a protection to the backflow preventive devices.

11. As a protection to the customer's plumbing system, a suitable pressure relief valve shall be installed and maintained by him, at his expense, when check valves or other protective devices are used. The relief valve shall be installed between the check valves

and the water heater. The devices shall be serviced, overhauled, or replaced whenever they are found defective, and all costs of repair, replacement, and maintenance shall be borne by the customer.

12. *Direct connections to stationary steam boiler, hydraulic elevators, power pumps, and similar apparatus.* No person shall draw water from City pipes directly into any stationary steam boiler, hydraulic elevator, power pump, or similar apparatus.

13. Where City water is used to supply a steam boiler, hydraulic elevator, or power pump, its owner shall provide tankage of sufficient capacity to afford a supply of at least twelve (12) hours, into which the service pipe shall be discharged.

14. *Commercial and industrial cooling systems.* All commercial and industrial businesses shall be required to equip all air-conditioning and evaporative cooler units using City water with cooling towers and/or recirculating water pumps in order to conserve City water.

15. *Responsibility for equipment.* The customer shall, at his own risk and expense, furnish, install, and keep in good and safe condition all equipment which may be required for receiving, controlling, applying, and utilizing water. The City shall not be responsible for damages to property caused by faucets, valves, and other equipment which is open when water is turned on at the meter, either originally or when turned on after a temporary shutdown.

B. Where Protection is Required.

1. Each service connection from the City water system for supplying water to premises having an auxiliary water supply shall be protected against backflow of water from the premises into the public water system.

2. Each service connection from the City water system for supplying water to any premises on which any substance, which has the potential to create contamination, is handled in such fashion as may allow its entry into the water system, shall be protected against backflow of the water from the premises into the public system by a backflow prevention device to be installed at the water user's expense. Backflow prevention devices shall also be installed, at the water user's expense, for service connections handling process waters and waters originating from the City water system which have been subjected to contamination from the premises.

3. Backflow prevention devices shall be installed on all service connections to any premises having any of the following:

- a. Internal cross-connections that cannot be permanently corrected and controlled to the satisfaction of the state or local health agency and the City; or
- b. Intricate plumbing and piping arrangements; or

- c. Where entry to all portions of the premises is not readily accessible for inspection purposes, making it impracticable or impossible to ascertain whether or not cross-connections exist.
- d. Any premises that has pumps to increase water pressure from the supplier.

4. Any system or premises designated to serve multiple residential, commercial or industrial tenants whose water practices are unknown at the time the plumbing or building permit is issued shall be protected against backflow of water from the premises to the public water system by a backflow prevention device of the type required by the City, health agency or local health agency. The determination of the type of backflow prevention device required shall be based on a determination of the potential hazard that may reasonably be expected to be encountered in buildings of similar type or nature.

5. All portable pressure spray or cleaning units (including water trucks, street sweepers, etc...) that have the capability of connecting to any water supplier's system shall be provided with an air-gap separation.

C. Type of Protection Required.

1. The type of protection that shall be provided to prevent backflow into the approved water supply shall be commensurate with the degree of hazard that exists on the consumer's premises. The type of protective device that may be required (listed in an increasing level of protection) includes: double check-valve assembly (DC), reduced pressure principle backflow prevention device (RP) and an air-gap separation (AG). The water user may choose a higher level of protection than required by the City, health agency or local health agency. The minimum type of backflow protection required to protect the approved water supply at the user's water connection to premises with varying degrees of hazard are given in Table 1. Situations which are not covered in Table 1 shall be evaluated on a case by case basis and the appropriate backflow protection shall be determined by the City or health agency, consistent with the highest practicable protection of potable water supplies.

TYPE OF BACKFLOW PROTECTION REQUIRED

TABLE 1

Degree of Hazard	Minimum Type of Backflow Prevention
<u>Sewage and Hazardous Substances.</u>	See below
(1) Premises where the public water system is used to supplement the reclaimed water supply.	AG
(2) Premises where there are wastewater pumping and/or treatment plants and there	AG

is not interconnection with the potable water system. This does not include a single-family residence that has a sewage lift pump. A RP may be provided in lieu of an AG if approved by both the health agency and the City	
(3) Premises where reclaimed water is used and there is no interconnection with the potable water system. A RP may be provided in lieu of an AG if approved by both the health agency and the City	AG
(4) Premises where hazardous substances are handled in any manner in which the substances may enter a potable water system. This does not include a single-family residence that has a sewage lift pump. A RP may be provided in lieu of an AG if approved by both the health agency and the City	AG
(5) Premises where there are irrigation systems into which fertilizers, herbicides or pesticides are, or can be, injected or assimilated.	RP
<u>Auxiliary Water Supplies.</u>	See below
(1) Premises where there is an unapproved auxiliary water supply which is interconnected with the public water system. A RP may be provided in lieu of an AG if approved by both the health agency and the City.	AG
(2) Premises where there is an unapproved auxiliary water supply and there are no interconnections with the public water system. A DC may be provided in lieu of a RP if approved by both the health agency and City.	RP
<u>Fire Protection Systems.</u>	
(1) Premises where fire system is directly supplied from the public water system and there is an unapproved auxiliary water supply on or to the premises (not	RP

interconnected).	
(2) Premises where the fire system is supplied from the public water system and interconnected with an unapproved auxiliary water supply. A RP may be provided in lieu of an AG if approved by both the health agency and City	AG
(3) Premises where the fire system is supplied from the public water system and where either elevated storage tanks or fire pumps which take suction from the private reservoirs or tanks are used.	RP
(d) Dockside Watering Points and Marine Facilities.	RP
(1) Pier hydrants for supplying water to vessels for any purpose.	RP
(2) Premises where there are marine facilities.	RP
(e) Premises where entry is so restricted that the City determines that inspections for cross-connections cannot be made with sufficient frequency or at sufficiently short notice to assure that cross-connections do not exist.	RP
(f) Premises where cross-connections have been established or reestablished two or more times or any other water service that the health agency or the City determines that a cross-connection hazard may exist	RP

4. Backflow prevention devices.

A. Approved Backflow Prevention Devices.

1. Only backflow prevention devices which have been approved by the City shall be acceptable for installation by a water user connected to the City's potable water system.
2. The City will provide, upon request, to any affected customer a list of approved backflow prevention devices.

B. Backflow Prevention Device Installation.

1. Backflow prevention devices shall be installed in a manner prescribed in Section 7603, Title 17/22, of the California Administrative Code of Regulations. Location of the devices shall be as close as practical to the user's connection to the public water supply. The City shall have the final discretionary authority in determining the required location of a backflow prevention device.

a. Air-gap Separation (AG). The air-gap separation shall be located on the user's side of and as close to the service connection as is practical. All piping from the service connection to the receiving tank shall be above grade and be entirely visible. No water use shall be provided from any point between the service connection and the air-gap separation. The water inlet piping shall terminate a distance of at least two pipe diameters of the supply inlet, but in no case less than one inch above the overflow rim of the receiving tank.

b. Reduced Pressure Principle Backflow Prevention Device (RP). The approved reduced pressure principle backflow prevention device shall be installed on the user's side of and as close to the service connection as is practical. The device shall be installed a minimum of twelve inches above grade and not more than thirty-six inches above grade measured from the bottom of the device and with a minimum of twelve inches side clearance. The device shall be installed so that it is readily accessible for maintenance and testing. Water supplied from any point between the service connection and the RP device shall be protected in a manner approved by the City.

c. Double Check-Valve Assembly (DC). The approved double check-valve assembly shall be located as close as practical to the user's service connection and shall be installed above grade, if possible, and in a manner where it is readily accessible for testing and maintenance. If a double check-valve assembly is put below grade it must be installed in a vault such that there is a minimum of six inches between the bottom of the vault and the bottom of the device, so that the top of the device is no more than eight inches below grade, so there is a minimum of six inches of clearance between the side of the device with the test cocks and the side of the vault, and so there is a minimum of three inches clearance between the other side of the device and the side of the vault. Double check-valve assemblies of the "Y" type must be installed on their "side" with the test cocks in a vertical position so that the check-valve may be removed for service without removing the device. Vaults which do not have an integrated bottom must be placed on a three-inch layer of gravel.

C. Backflow Prevention Device Testing and Maintenance.

1. California Department of Public Health requires that the City administer a cross-connection program to ensure that annual testing is completed. The owners of any premises on which, or on account of which, backflow prevention devices are installed, shall have the devices tested by a person certified by the American Water Works Association and approved by the City. Backflow prevention devices must be tested at least annually and immediately after installation, relocation or repair. The City may require a more frequent test schedule if it is determined to be necessary. No device shall

be placed back in service unless it is functioning as required. A report in a form acceptable to the City shall be filed with the City each time a device is tested, relocated or repaired. These devices shall be serviced, overhauled or replaced whenever they are found to be defective and all costs of testing, repair and maintenance shall be borne by the water user.

2. The City will supply affected water users with a list of persons acceptable to the City to test backflow prevention devices. The City will notify affected customers by mail when annual testing of a device is needed and also supply users with the necessary forms which must be filled out each time a device is tested or repaired.

D. Backflow Prevention Device Removal.

1. Approval must be obtained from the City before a backflow prevention device is removed, relocated or replaced.

a. Removal. The use of a device may be discontinued and the device removed from service upon determination by the City that a hazard no longer exists or is not likely to be created in the future. All well(s) must be abandoned by permit through Sutter County Environmental Health.

b. Relocation. A device may be relocated following confirmation by the City of Yuba City that the relocation will continue to provide the required protection and satisfy installation requirements. The City shall require a retest following the relocation of the device to verify the required level of protection.

c. Repair. A device may be removed for repair, provided the water use is either discontinued until repair is completed and the device is returned to service, or the service connection is equipped with other backflow protection approved by the City. The City shall require a retest following the repair of the device to verify the required level of protection.

d. Replacement. A device may be removed and replaced provided the water use is discontinued until the replacement device is installed. All replacement devices must be approved by the City and must be commensurate with the degree of hazard involved or updated to current standards

5. User Supervisor.

At each premise where it is necessary, in the opinion of the City, a user supervisor shall be designated by and at the expense of the water user. This user supervisor shall be responsible for the monitoring of the backflow prevention devices and for avoidance of cross-connections. In the event of contamination or pollution of the drinking water system due to a cross-connection on the premises, the City shall be promptly notified by the user supervisor so that appropriate measures may be taken to overcome the contamination. The water user shall inform the City of the user supervisor's identity

annually, and whenever a change occurs. Any cost incurred by the City due to contamination by the failure / tampering or removal of the backflow device caused by user negligence shall be the responsibility of the water user or the property owner.

6. Administrative Procedures.

A. Water System Survey.

1. The City shall review all requests for new services to determine if backflow protection is needed. Plans and specifications must be submitted to the City upon request for review of possible cross-connection hazards as a condition of service for new service connections. If it is determined that a backflow prevention device is necessary to protect the public water system, the required device must be installed before service will be granted.

2. The City may require an on-premises inspection to evaluate cross-connection hazards. The City will transmit a written 48 hour notice requesting an inspection appointment to each affected water user. Any customer which cannot or will not allow on-premises inspection of their piping system shall be required to install the backflow prevention device the city considers necessary.

a. Right of entry for inspections. Upon presentation of official identification, any authorized employee of the City on official business shall be allowed access at reasonable hours to any premises supplied by City water supply.

b. Any person who, as owner or occupant of any premises, refuses admittance to or hinders or prevents inspection by an authorized employee of the City may have all water service to the premises terminated. Water will not be restored until an inspection is performed and any corrective action has been addressed. A reconnection fee will be charged in accordance with the fees established in section 6.18 of this Chapter.

3. The City may, at its discretion, require a re-inspection for cross-connection hazards of any premises to which it serves water. The City will transmit a written 48 hour notice requesting an inspection appointment to each affected water user. Any customer which cannot or will not allow on-premises inspection of their piping system shall be required to install the backflow prevention device the City considers necessary.

B. Customer Notification -- Device Installation.

1. The City will notify any affected water user of the survey findings, listing corrective action to be taken if required. A period of thirty days will be given to complete all corrective action required including installation of backflow prevention devices.

2. A second notice will be sent to each water user which does not take the required corrective action prescribed in the first notice within the thirty day period allowed. The second notice will give the water user a fifteen day period to take the required corrective action. If no action is taken within the two-week period the City may terminate water service to the affected water user until the required corrective actions are taken. A reconnection fee will be charged per the city's fee schedule.

C. Customer Notification--Testing and Maintenance.

1. The City will notify each affected water user 15 days prior to the time for the backflow prevention device installed on their service connection to be tested. This written notice shall give the water user 60 days to have the device tested and supply the City with a completed test report. All test reports are due annually on the first day of the month in which the device was installed, repaired or replaced.

2. A second notice shall be sent 30 days after the first notice to each City water user which does not have his/her backflow prevention device tested as prescribed in the first notice within the 60 period allowed. The second notice will give the water user a 30 day period with in the original 60 day period to have his/her backflow prevention device tested.

3. A third and notice shall be sent to have his/her backflow prevention device tested. If no action is taken within the remaining 14 day period a 48 hour notice will be hand delivered prior to the shut off time and date stated in the third notice. The City may terminate water service to the affected water user at that time to the premises until the subject device is tested. A reconnection fee will be charged in accordance with the city's fee schedule before the water service will be restored.

7. TESTER REQUIREMENTS

A. All testers must posses a current Business License issued by the City.

B. APPLICATION FOR TESTERS

All parties that wish to test backflow prevention devices within the City surface or groundwater systems shall complete an application for approval to the City cross connection control program and pay all applicable fees as set forth in section 6.18 of this chapter. All fees for applications are non refundable regardless of approval. If approved, this will permit testing for a period of 3 years from the approval date. Before the expiration of the initial 3 year period, a notification letter of upcoming expiration will be sent. For renewal, a new application and all applicable fees must be paid. Notification by phone or mail will occur regardless of approval. All test equipment must be calibrated within the last 12 months and calibration reports must be submitted with each application. The responsibility for maintaining current approval status is solely the applicant's responsibility. Tester fees and backflow tag fees shall be waived for City employees for the testing of municipal devices only.

C. BACKFLOW TAGS

Every individual backflow device must have a backflow test tag. Serial numbers from tags must be printed on all test report forms submitted. A new tag must be placed on each device at the number one test cock each time the device is tested /repaired or relocated. All backflow tags must be purchased at the City Finance Department, 1201 Civic Center Boulevard, Yuba City, California, 95993 in accordance with the fees established in section 6.18 of this chapter. Tags are valid from January 1 through December 31 of each year. Tags will expire on December 31 of every calendar year and each year's tags will be of differing color. **Tag fees are non refundable and unused tags may not be returned for a refund.**

D. APPLICATION FORMS

All application forms can be picked up and returned with fees paid at the time of application to the City of Yuba City Finance Department 1201 Civic Center Boulevard, Yuba City, California, 95993 (Attention Cross Connection Control Program).

E. TEST FORMS

All test forms must be approved by The City of Yuba City Cross Connection Program.

8. Water Service Termination.

A. General. When the City encounters water uses that represent a clear and immediate hazard to the potable water supply that cannot be immediately abated, the City shall institute the procedure for discontinuing the City water service.

B. Basis for Termination. Conditions or water uses that create a basis for water service termination shall include, but are not limited to, the following items:

1. Refusal to install a required backflow prevention device;
2. Refusal to test a backflow prevention device;
3. Refusal to repair a faulty backflow prevention device;
4. Refusal to replace a faulty backflow prevention device;
5. Direct or indirect connection between the public water system and a sewer line;
6. Unprotected direct or indirect connection between the public water system and a system or equipment containing contaminants;
7. Unprotected direct or indirect connection between the public water system and an auxiliary water system;

8. A situation which presents an immediate health hazard to the public water system.

C. Water Service Termination Procedures.

1. For conditions 1, 2, 3 or 4 of subsection B of this section, the City will terminate service to a customer's premises after two written notices have been sent specifying the corrective action needed and the time period in which it must be done. If no action is taken within the allowed time period water service may be terminated.

2. For conditions 5, 6, 7 or 8 of subsection B of this section, the City will take the following steps:

a. Make reasonable effort to advise the water user of intent to terminate water service;

b. Immediately terminate water supply and lock service valve. The water service will remain inactive until correction of violations has been approved by the City. A reconnection fee will be charged in accordance with the City's shutoff policy.

9. Fire Hydrant Use.

A. It is unlawful for any unauthorized person to draw, cause to be drawn, or allow to be drawn, for any purpose whatsoever, any water from any fire backflow device or fire hydrant within the City's public water supply (surface or groundwater) without a hydrant meter issued from the Finance Department with exception to any authorized fire personnel. All unauthorized water use will be considered theft of a public utility and subject to the fees/fines established in section 6.20 of this chapter. All conditions of Subsection B of this section shall apply and the City may require additional backflow prevention devices in companion with the hydrant meter. The additional backflow device will be at the user's expense.

B. Air Gap Inspection and Stickers. All water trucks, tanks, and other equipment drawing water from within the City's public water supply (surface or groundwater) shall be inspected annually and approved by the Public Works Department for proper air gap prior to drawing water. Upon approval by the Public Works Department a color coded verification sticker that contains a specific serial number shall be applied to the vehicle's windshield or rear bumper. The sticker will be valid for one (1) year from the date of issuance. All inspections are to be paid for in advance at the City of Yuba City Finance Department, 1201 Civic Center Boulevard, Yuba City, California, 95993 in accordance with the fees established in Section 6.18 of this chapter. All unauthorized water use will be considered theft of a public utility and subject to the fees/fines established in section 6.20 of this chapter.

C. *Pools and tanks.* When an abnormally large quantity of water is desired for filling a swimming pool or for other purposes, arrangements shall be made with the City prior to taking such water.

*[Section 6-6.01](#), [Section 6-6.02](#), [Section 6-6.03](#), [Section 6-6.04](#), [Section 6-6.05](#), [Section 6-6.06](#), [Section 6-6.07](#), [Section 6-6.08](#), [Section 6-6.09](#), [Section 6-6.10](#), [Section 6-6.11](#), [Section 6-6.12](#), [Section 6-6.13](#), [Section 6-6.14](#), [Section 6-6.15](#), [Section 6-6.16](#), [Section 6-6.17](#), [Section 6-6.18](#), [Section 6-6.19](#), [Section 6-6.20](#), Section 6-6.21, Section 6-6.22, Section 6-6.23, Section 6-6.24, Section 6-6.25, Section 6-6.26, Section 6-6.27, Section 6-6.28, Section 6-6.29, Section 6-6.30, Section 6-6.31, Section 6-6.32 and Section 6-6.33, codified from Ordinance Nos. 272 and 307, as amended by Ordinance Nos. 435 and 463, amended in their entirety by Ordinance No. 506, effective January 1, 1965; [Section 6-6.01](#), [Section 6-6.02](#), [Section 6-6.03](#), [Section 6-6.04](#), [Section 6-6.05](#), [Section 6-6.06](#), [Section 6-6.07](#), [Section 6-6.08](#), [Section 6-6.09](#), [Section 6-6.10](#), [Section 6-6.11](#), [Section 6-6.12](#), [Section 6-6.13](#), [Section 6-6.14](#), [Section 6-6.15](#) and [Section 6-6.16](#), as amended by said Ordinance No. 506 and Ordinance Nos. 511, effective April 14, 1965, 514, effective June 2, 1965, retroactive to January 1, 1965, 516, effective July 7, 1965, and 527, effective July 20, 1966, repealed by Section 1, Ordinance No. 703, effective July 1, 1975. [Section 6-6.05](#) amended by Section 2, Ordinance No. 849, effective July 1, 1980; [Section 6-6.09](#), [Section 6-6.10](#) and [section 6-6.11](#) amended by Sections 3 through 5, Ordinance No. 849, effective July 1, 1980; [Section 6-6.15](#), [Section 6-6.16](#) and [section 6-6.17](#) amended by Sections 6 through 8, Ordinance No. 849, effective July 1, 1980.

Section 3 This Ordinance shall be effective 30 days from and after its adoption, and after adoption shall be published as provided by law.

Introduced and read at a regular meeting of the City Council of the City of Yuba City on the 20th day of October, 2009 and passed and adopted at a regular meeting held on the 17th day of November, 2009

Ayes:

Noes

Abstain:

Absent:

Kash Gill, Mayor

Attest:

Terrel Locke, City Clerk

Approved as to form:

Timothy P. Hayes, City Attorney



Howard Backer, MD, MPH
Interim Director

State of California—Health and Human Services Agency
California Department of Public Health

Division of Drinking Water and Environmental Management
415 Knollcrest Drive, Suite 110
Redding, CA 96002
(530) 224-4800 FAX (530) 224-4844
Internet Address: www.cdph.ca.gov



EDMUND G. BROWN JR.
Governor

WATER QUALITY EMERGENCY NOTIFICATION PLAN

Name of Utility: City of Yuba City	System No. 5110002
Mailing Address: 701 Northgate Dr Yuba City Ca. 95991	FAX No: 530-822-4739
Street Address: (if different than mailing address)	E-mail address: jwesthou@yubacity.net

The following persons have been designated to implement the plan upon notification by the State Department of Public Health, Division of Drinking Water, that an imminent danger to the health of water users exists:

WATER SYSTEM PERSONNEL OR SYSTEM CONTACT

NAME	TITLE	DAY PHONE	CELL PHONE	EVENING PHONE
1. George Musallam	Public Works Director	530-822-4635	530-415-4850	
2. John Westhouse	Plant Supervisor	530-822-4637	530-713-4367	530-790-0876
3. Terrance Pioro	Chief Operator	530-822-4759	530-218-7415	530-671-5406
4. Matt Langley	Water/Sewer Supervisor	530-822-4777	530-415-8790	530-790-6759

The implementation of the plan will be carried out with the following

STATE DEPARTMENT OF PUBLIC HEALTH PERSONNEL:

NAME	TITLE	DAY PHONE	EVENING PHONE
Reese Crenshaw	Associate Sanitary Engineer	(530) 224-4861	(530) 547-5147
Richard Hinrichs	Senior Sanitary Engineer	(530) 224-4867	(530) 244-3811
Gary Schultz	Associate Sanitary Engineer	(530) 224-4868	(530) 246-2128
Ray Bruun	Associate Sanitary Engineer	(530) 224-3252	(530) 474-4559
Dan Cikuth	Associate Sanitary Engineer	(530) 224-3271	(530) 243-7360
Jim Reade	Associate Sanitary Engineer	(530) 224-2485	(530) 339-1991

If the above personnel cannot be reached, contact:

California Emergency Management Agency (CalEMA) 24 hrs (800) 852-7550 or (916) 845-8911

When reporting a water quality emergency to the Warning Center, please ask for the California Department of Public Health-Drinking Water Program Duty Officer

NOTIFICATION PLAN

Describe methods or combinations of methods to be used (radio, television, door-to-door, sound truck, etc.). For each section of your plan give an estimate of the time required, necessary personnel, estimated coverage, etc. Consideration must be given to special organizations, particularly non-English speaking groups, and outlying water users. (Use the other side of this form or attach a written description, if necessary).

Attached

Plan Prepared by: John Westhouse

Title: Water Treatment Plant Supervisor

Signature:

Date: 03-31-11

YUBA CITY NOTIFICATION PLAN

In the event that emergency notification of the public is required, Yuba City would employ several simultaneous notification methods. These include:

- Radio – Five local radio stations cover the Yuba City area, two AM stations and three FM stations. These stations could issue on-air warnings within one hour.
- Cable TV – During normal working hours, within one hour, the local cable television provider could place a notification on Channel 18 and 19.
- Yuba City emergency radio station – Yuba City operates a low power radio station, AM1500, which is designed to cover the Yuba City area. This station can be programmed to play a continuous loop message. The message is customized and can be any language. This could be in place within one hour.
- Emergency Phone Calling – Yuba City has an active Teleminder Phone System that can be programmed to call all active phone numbers within a designated area. Yuba City has mutual aid agreements with other agencies that will also place calls. This system can plan a customized message within one hour. All phone numbers in the Yuba City area could be notified within twelve to twenty-four hours.
- Police and Fire Fighters – Yuba City police and fire fighters can patrol the area and broadcast messages from their vehicles. This could be in place within one hour.
- Door Hangers – Door hanger notices could be delivered to all customers. This process could be initiated within one day and be complete within three days.
- Newspaper – The local daily morning newspaper could publish an article. The cutoff deadline is 9:00 p.m. of the previous day.



Howard Backer, MD, MPH
Interim Director

State of California—Health and Human Services Agency
California Department of Public Health

Division of Drinking Water and Environmental Management
415 Knollcrest Drive, Suite 110
Redding, CA 96002
(530) 224-4800 FAX (530) 224-4844
Internet Address: www.cdph.ca.gov



EDMUND G. BROWN JR.
Governor

WATER QUALITY EMERGENCY NOTIFICATION PLAN

Name of Utility: City of Yuba City	System No. 5110002
Mailing Address: 701 Northgate Dr Yuba City Ca. 95991	FAX No: 530-822-4739
Street Address: (if different than mailing address)	E-mail address: jwesthou@yubacity.net

The following persons have been designated to implement the plan upon notification by the State Department of Public Health, Division of Drinking Water, that an imminent danger to the health of water users exists:

WATER SYSTEM PERSONNEL OR SYSTEM CONTACT

NAME	TITLE	DAY PHONE	CELL PHONE	EVENING PHONE
1. George Musallam	Public Works Director	530-822-4635	530-415-4850	
2. John Westhouse	Plant Supervisor	530-822-4637	530-713-4367	530-790-0876
3. Terrance Pioro	Chief Operator	530-822-4759	530-218-7415	530-671-5406
4. Matt Langley	Water/Sewer Supervisor	530-822-4777	530-415-8790	530-790-6759

The implementation of the plan will be carried out with the following
STATE DEPARTMENT OF PUBLIC HEALTH PERSONNEL:

NAME	TITLE	DAY PHONE	EVENING PHONE
Reese Crenshaw	Associate Sanitary Engineer	(530) 224-4861	(530) 547-5147
Richard Hinrichs	Senior Sanitary Engineer	(530) 224-4867	(530) 244-3811
Gary Schultz	Associate Sanitary Engineer	(530) 224-4868	(530) 246-2128
Ray Bruun	Associate Sanitary Engineer	(530) 224-3252	(530) 474-4559
Dan Cikuth	Associate Sanitary Engineer	(530) 224-3271	(530) 243-7360
Jim Reade	Associate Sanitary Engineer	(530) 224-2485	(530) 339-1991

If the above personnel cannot be reached, contact:

California Emergency Management Agency (CalEMA) 24 hrs (800) 852-7550 or (916) 845-8911

When reporting a water quality emergency to the Warning Center, please ask for the California Department of Public Health-Drinking Water Program Duty Officer

NOTIFICATION PLAN

Describe methods or combinations of methods to be used (radio, television, door-to-door, sound truck, etc.). For each section of your plan give an estimate of the time required, necessary personnel, estimated coverage, etc. Consideration must be given to special organizations, particularly non-English speaking groups, and outlying water users. (Use the other side of this form or attach a written description, if necessary).

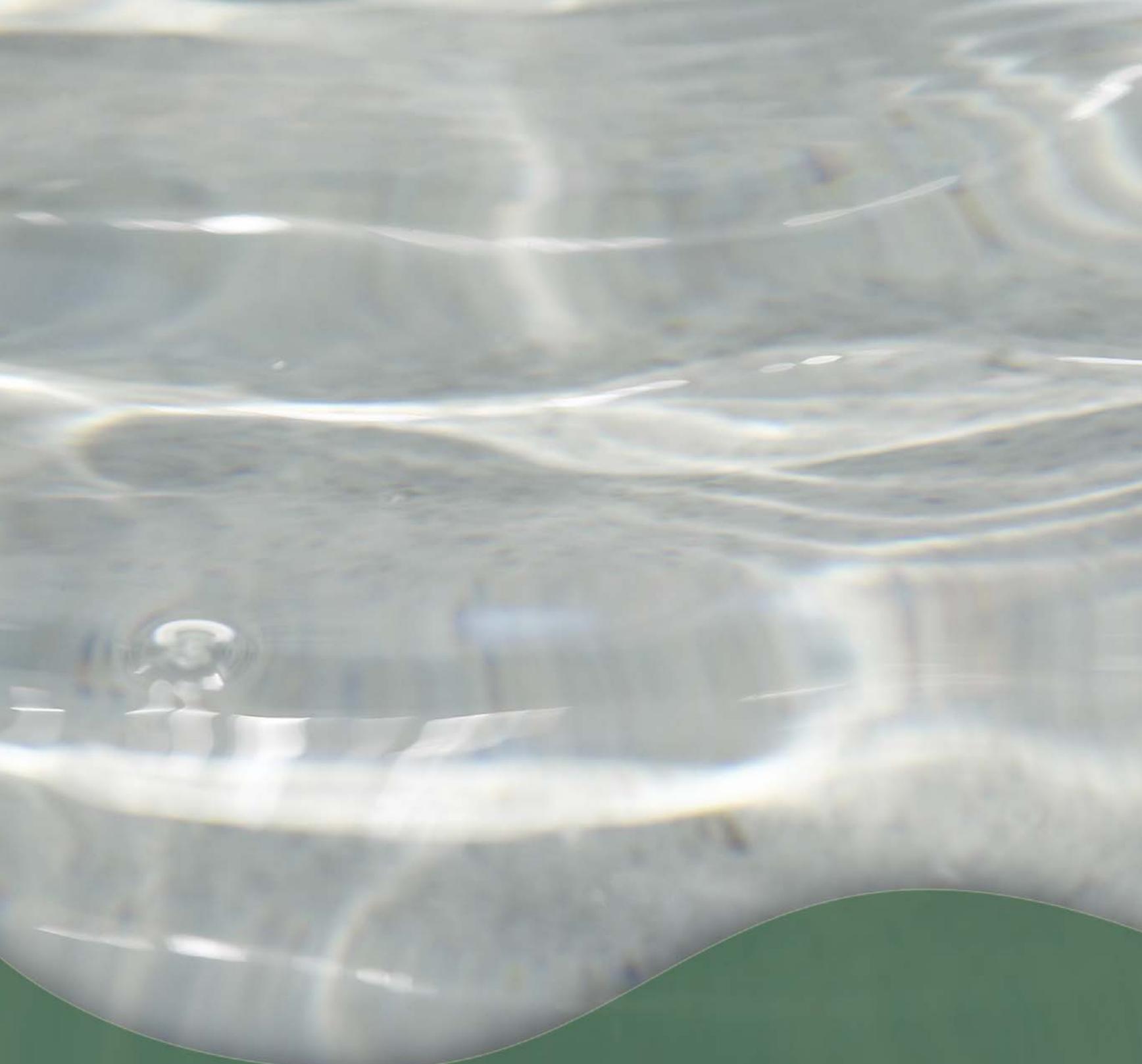
Attached

Plan Prepared by: John Westhouse
Print Name

Title: Water Treatment Plant Supervisor

Signature: _____

Date: 03-31-11



 **carollo**
Engineers...Working Wonders With Water®