City of GALT

2015 Urban Water Management Plan Update

Public Review Draft | June 2016

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CITY OF GALT

2015 URBAN WATER MANAGEMENT PLAN

PUBLIC REVIEW DRAFT

June 2016

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CITY OF GALT

2015 URBAN WATER MANAGEMENT PLAN

TABLE OF CONTENTS

Page No.

Chapter 1 INTRODUCTION AND OVERVIEW

1.1 BACKGROUND AND PURPOSE 1-1
1.2 URBAN WATER MANAGEMENT PLANNING AND THE CALIFORNIA WATER CODE 1-1
1.2.1 Urban Water Management Planning Act of 1983 1-1
1.2.2 Applicable Changes to the Water Code since 2010 UWMPs 1-2
1.2.3 Water Conservation Act of 2009 (SB X7-7) 1-3
1.3 ABBREVIATIONS AND DEFINITIONS 1-4

Chapter 2 PLAN PREPARATION

2.1 BASIS FOR PLAN PREPARATION 2-1
2.2 INDIVIDUAL PLANNING AND COMPLIANCE 2-1
2.3 CALENDAR YEAR AND UNITS OF MEASURE 2-2
2.4 COORDINATION AND OUTREACH 2-2
2.4.1 Wholesale and Retail Coordination 2-2
2.4.2 Coordination with Other Agencies and the Community 2-3
2.4.3 Notice to Cities and Counties 2-4

Chapter 3 SYSTEM DESCRIPTION

3.1 GENERAL DESCRIPTION 3-1
3.1.1 Description of Transmission, Treatment, and Distribution Facilities 3-1
3.2 SERVICE AREA BOUNDARY MAP 3-2
3.3 SERVICE AREA CLIMATE 3-2
3.3.1 Climate Change 3-4
3.4 SERVICE AREA POPULATION AND DEMOGRAPHICS 3-5
3.4.1 Other Demographic Factors 3-5

Chapter 4 SYSTEM WATER USE

4.1 RECYCLED VERSUS POTABLE AND RAW WATER DEMAND 4-1
4.2 WATER USES BY SECTOR 4-1
4.3 DISTRIBUTION SYSTEM WATER LOSSES 4-3
4.4 ESTIMATING FUTURE WATER SAVINGS 4-4
4.5 WATER USE FOR LOWER INCOME HOUSEHOLDS 4-4

Chapter 5 BASELINES AND TARGETS

5.1 BASELINE PERIODS 5-1
5.2 SERVICE AREA POPULATION 5-1
5.2.1 Population Methodology 5-2
5.3 GROSS WATER USE 5-2
5.4 BASELINE DAILY PER CAPITA WATER USE 5-2
5.5 2015 AND 2020 TARGETS 5-3
5.5.1 Target Methods 5-3
5.5.2 5-Year Baseline - 2020 Target Confirmation 5-4
5.5.3 2015 Interim Urban Water Use Target 5-4
5.5.4 Summary of Baselines and Targets 5-4
5.6 COMPLIANCE DAILY PER CAPITA WATER USE (GPCD) 5-5

Chapter 6 SYSTEM SUPPLIES

6.1 PURCHASED OR IMPORTED WATER 6-1
6.2 GROUNDWATER 6-1
6.2.1 Basin Description 6-2
6.2.2 Groundwater Management 6-2
6.2.3 Overdraft Conditions 6-2
6.2.4 Historical Groundwater Pumping 6-3
6.3 SURFACE WATER 6-4
6.4 STORMWATER 6-4
6.5 WASTEWATER AND RECYCLED WATER 6-4
6.5.1 Recycled Water Coordination 6-4
6.5.2 Wastewater Collection, Treatment Systems, and Disposal 6-5
6.5.3 Recycled Water System 6-6
6.5.4 Actions to Encourage and Optimize Future Recycled Water Use 6-7
6.6 DESALINATED WATER OPPORTUNITIES 6-8
6.7 EXCHANGES OR TRANSFERS 6-8
6.7.1 Exchanges 6-8
6.7.2 Transfers 6-8
6.7.3 Emergency Interties 6-8
6.8 FUTURE WATER PROJECTS 6-8
6.9 SUMMARY OF EXISTING AND PLANNED SOURCES OF WATER 6-9
6.10 CLIMATE CHANGE IMPACTS TO SUPPLY 6-9

Chapter 7 WATER SUPPLY RELIABILITY

7.1 CONSTRAINTS ON WATER SOURCES 7-1
7.1.1 Water Supply Reliability 7-1
7.1.2 Water Supply Quality 7-1
7.2 RELIABILITY BY TYPE OF YEAR 7-2
7.3 SUPPLY AND DEMAND ASSESSMENT 7-5
7.3.1 Supplies and Demands for a Normal Water Year 7-5
7.3.2 Supplies and Demands for a Single-Dry Water Year 7-5
7.3.3 Supply and Demand for Multiple-Dry Water Year Periods 7-6
7.4 REGIONAL SUPPLY RELIABILITY 7-8

Chapter 8 WATER SHORTAGE CONTINGENCY PLAN

8.1 STAGES OF ACTION 8-1
8.2 PROHIBITIONS ON END USES 8-2
8.2.1 Defining Water Features 8-3
8.3 PENALTIES, CHARGES, OTHER ENFORCEMENT OF PROHIBITIONS 8-3
8.4 CONSUMPTION REDUCTION METHODS 8-5
8.5 DETERMINING WATER SHORTAGE REDUCTIONS 8-5
8.6 REVENUE AND EXPENDITURE IMPACTS 8-5
8.6.1 Drought Rate Structures and Surcharges 8-6
8.6.2 Use of Financial Reserves 8-6
8.6.3 Other Measures 8-6
8.7 RESOLUTION OR ORDINANCE 8-6
8.8 CATASTROPHIC SUPPLY INTERVENTION 8-6
8.9 MINIMUM SUPPLY FOR NEXT THREE YEARS 8-7

Chapter 9 DEMAND MANAGEMENT MEASURES

9.1 WATER WASTE PREVENTION ORDINANCES 9-1
9.1.1 Implementation over the Past Five Years 9-1
9.1.2 Planned Implementation 9-2
9.2 METERING 9-2
9.2.1 Implementation over the Past Five Years 9-2
9.2.2 Planned Implementation 9-3
9.3 CONSERVATION PRICING 9-3
9.3.1 Implementation over the Past Five Years 9-3
9.3.2 Planned Implementation 9-3
9.4 PUBLIC EDUCATION AND OUTREACH 9-3
9.4.1 Implementation over the Past Five Years 9-4
9.4.2 Planned Implementation 9-4
9.5 PROGRAMS TO ASSESS AND MANAGE DISTRIBUTION SYSTEM REAL LOSS 9-4
9.5.1 Implementation over the Past Five Years 9-5
9.5.2 Planned Implementation 9-5
9.6 WATER CONSERVATION PROGRAM COORDINATION AND STAFFING SUPPORT 9-6
9.6.1 Implementation over the Past Five Years 9-6
9.6.2 Planned Implementation 9-6
9.7 OTHER DEMAND MANAGEMENT MEASURES 9-6
9.8 PLANNED IMPLEMENTATION TO ACHIEVE WATER USE TARGETS 9-6

Chapter 10 PLAN ADOPTION, SUBMITTAL, AND IMPLEMENTATION

10.1 INCLUSION OF ALL 2015 DATA 10-1
10.2 NOTICE OF PUBLIC HEARING 10-1
10.2.1 Notice to Cities and Counties 10-1
10.2.2 Notice to the Public 10-2
10.2.3 Notice to Agencies and Organizations 10-3
10.3 PUBLIC HEARING AND ADOPTION 10-3
10.3.1 Adoption 10-3

10.4 PLAN SUBMITTAL 10-3
10.4.1 Submission to DWR 10-3
10.4.2 Electronic Data Submission 10-3
10.4.3 Submission to the California State Library 10-3
10.4.4 Submission to Cities and Counties 10-4
10.5 PUBLIC AVAILABILITY 10-4
10.6 AMENDING AN ADOPTED UWMP 10-4

LIST OF APPENDICES

APPENDIX A – Outreach Documents
APPENDIX B – Climate Change Vulnerability Assessment
APPENDIX C – SB X7-7 Verification Form
APPENDIX D – Department of Water Resources Bulletin 118 Cosumnes Subbasin
APPENDIX E – South Basin Groundwater Management Plan
APPENDIX F – 2014 Annual Drinking Water Quality Report
APPENDIX G – City Code Water Conservation Chapter
APPENDIX H – Resolution No. 2016-16
APPENDIX I – Completed UWMP Checklist
APPENDIX J – City Adoption Resolution (To be included in the Final UWMP)

LIST OF TABLES

Table 1-1 Applicable Changes to the Water Code since 2010 UWMPs 1-3
Table 2-1 Retail Only: Public Water Systems 2-1
Table 2-2 Plan Identification 2-2
Table 2-3 Agency Identification 2-2
Table 2-4 Retail: Water Supplier Information Exchange 2-3
Table 2-5 Coordination with Appropriate Agencies 2-4
Table 3-0 Climate Characteristics 3-4
Table 3-1 Retail: Population - Current and Projected 3-5
Table 4-0 2010 Water Deliveries 4-1
Table 4-1 Retail: Demand for Potable and Raw Water - Actual 4-2
Table 4-2 Retail: Demand for Potable and Raw Water - Projected 4-2
Table 4-3 Retail: Total Water Demands 4-3
Table 4-4 Retail: 12 Month Water Loss Audit Reporting 4-4
Table 4-5 Retail Only: Inclusion in Water Use Projections 4-4
Table 5-1 Baselines and Targets Summary 5-5
Table 5-2 2015 Compliance 5-5
Table 6-0 Water Supply Wells 6-1
Table 6-1 Retail: Historical Groundwater Pumping 6-3
Table 6-2 Retail: Wastewater Collected Within Service Area in 2015 6-5
Table 6-3 Retail: Wastewater Treatment and Discharge Within Service Area in 2015 6-6
Table 6-4 Retail: Current and Projected Recycled Water Direct Beneficial Uses Within Service Area 6-6
Table 6-5 Retail: 2010 UWMP Recycled Water Use Projection Compared to 2015 Actual 6-7

Table 6-6 Retail: Methods to Expand Future Recycled Water Use 6-7
Table 6-7 Retail: Expected Future Water Supply Projects or Programs 6-9
Table 6-8 Retail: Water Supplies - Actual 6-10
Table 6-9 Retail: Water Supplies - Projected 6-11
Table 7-0 Factors Resulting in Inconsistency of Supply 7-2
Table 7-1 Retail: Basis of Water Year Data 7-5
Table 7-2 Retail: Normal Year Supply and Demand Comparison 7-6
Table 7-3 Retail: Single Dry Year Supply and Demand Comparison 7-6
Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison 7-7
Table 8-1 Retail: Stages of Water Shortage Contingency Plan 8-1
Table 8-2 Retail Only: Restrictions and Prohibitions on End Uses 8-4
Table 8-3 Retail Only: Stages of Water Shortage Contingency Plan - Consumption Reduction Methods 8-5
Table 8-4 Retail: Minimum Supply Next Three Years 8-8
Table 9-1 Metering Implementation Over Past Five Years 9-2
Table 9-2 Public Education Implementation Over Past Five Years 9-4
Table 9-3 Loss Management Implementation Over Past Five Years 9-5
Table 10-1 Retail: Notification to Cities and Counties 10-2

LIST OF FIGURES

Figure 3-1 Water Service Area 3-3
Figure 6-1 Groundwater Levels 6-3
Figure 7-1 Depth to Groundwater Surface at City Wells 2014-2016 7-4

Chapter 1

INTRODUCTION AND OVERVIEW

1.1 BACKGROUND AND PURPOSE

The California Water Code (CWC) 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. 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 document, which was prepared in compliance with the CWC, and as set forth in the 2015 Urban Water Management Plan Guidebook for Urban Water Suppliers (March 2016) established by the DWR, constitutes the City of Galt (City) 2015 UWMP.

This 2015 UWMP was prepared in compliance with the UWMPA (CWC §10610 et seq.) and the Water Conservation Bill of 2009 (Senate Bill [SB] X7-7) by Carollo Engineers. Contact information for the City and Carollo Engineers is included in the Contact Sheet provided at the beginning of this document.

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.

1.2 URBAN WATER MANAGEMENT PLANNING AND THE CALIFORNIA WATER CODE

The CWC sections applicable to UWMPs are summarized in the sections below.

1.2.1 Urban Water Management Planning Act of 1983

In 1983, State Assembly Bill (AB) 797 modified the CWC 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:

- AB 1420: Requires implementation of DMMs/Best Management Practices (BMPs) and meeting the 20-by-2020 targets to qualify for water management grants or loans.
- AB 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): 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 and Water Supply Assessments.
- SB 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.
- SB X7-7: Requires development and use of new methodologies for reporting population growth estimates, base per capita use, and water conservation. An agency can choose from four methods to establish their intermediate (2015) and year 2020 water conservation targets.

1.2.2 Applicable Changes to the Water Code since 2010 UWMPs

Changes to the CWC since 2010 UWMPs are summarized in Table 1-1.

Table 1-1 Applicable Changes to the Water Code since 2010 UWMPs			
Topic	CWC Section	Legislative Bill	Summary
Demand Management Measures	10631 (f) (1) and (2)	AB 2067, 2014	Requires water suppliers to provide narratives of water demand management measures.
Submittal Date	10621 (d)	AB 2067, 2014	Requires each urban water supplier to submit its 2015 plan to the DWR by July 1, 2016.
Electronic Submittal	10644 (a) (2)	SB 1420, 2014	Requires the plan, or amendments to the plan, to be submitted electronically to DWR.
Standardized Forms	10644 (a) (2)	SB 1420, 2014	Requires the plan, or amendments to the plan, to include any standardized forms, tables, or displays specified by DWR.
Water Loss	10631 (e) (1) (J) and (e) (3) (A) and (B)	SB 1420, 2014	Requires a plan to quantify and report on distribution system water loss.
Estimated Future Water Savings	10631 (e) (4)	SB 1420, 2014	Provides for water use projections to display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans, when that information is available and applicable to an urban water supplier.
Voluntary Reporting of Energy Intensity	10631.2 (a) and (b)	SB 1036, 2014	Provides for an urban water supplier to include certain energy-related information, including, but not limited to, and estimate of the amount of energy used to extract or divert water supplies.
Defining Water Features	10632	AB 2409, 2014	Requires urban water suppliers to analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains separately from swimming pools and spas.

1.2.3 Water Conservation Act of 2009 (SB X7-7)

Beginning in 2016, retail water suppliers are required to comply with the water conservation requirements in SB X7-7 in order to be eligible for State water grants or loans. Refer to Chapter 4 for detailed information on SB X7-7.

1.3 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.

AB	Assembly Bill
AF	acre-feet
AFY	acre-feet per year
AMI	Advanced Metering Infrastructure
AMR	Automatic Meter Reading
AWWA	American Water Works Association
BMPs	Best Management Practices
CCR	California Code of Regulations
CII	Commercial, Industrial, and Institutional
CIMIS	California Irrigation Management Information Systems
CIP	Capital Improvement Plan
City	City of Galt
CPI	Consumer Price Index
CUWCC	California Urban Water Conservation Council
CWC	California Water Code
DMMs	Demand Management Measures
DWR	California Department of Water Resources
EDD	California Employment Development Department
ETo	Evapotranspiration
^{o}F	Degrees Fahrenheit
gpcd	gallons per capita per day
gpm	gallons per minute

GWMP	Groundwater Management Plan
IRWM	Integrated Regional Water Management
LAFCO	Sacramento County Local Agency Formation Commission
MFR	Multi-Family Residential
mgd	million gallons per day
MOU	Memorandum of Understanding
SACOG	Sacramento Area Council of Governments
SB	Senate Bill
SCWA	Sacramento County Water Agency
SFR	Single-Family Residential
SWRCB	State Water Resources Control Board
RHNA	Regional Housing Need Allocation
RHNP	Regional Housing Needs Plan
RWQCB	Central Valley Regional Water Quality Control Board
UWMP	Urban Water Management Plan
UWMPA	Urban Water Management Planning Act
WTP	Water Treatment Plant
WWTP	Wastewater Treatment Plant

PLAN PREPARATION

The City of Galt (City) previously prepared an Urban Water Management Plan (UWMP) in 2010, which was approved and adopted on March 19, 2013. Following adoption, the 2010 UWMP was submitted to the California Department of Water Resources (DWR). This 2015 UWMP serves as an update to the 2010 UWMP.

This section includes specific information on how the UWMP was developed, including efforts in coordination and outreach.

2.1 BASIS FOR PLAN PREPARATION

California Water Code (CWC) 10617 requires that urban water suppliers with 3,000 or more service connections or supplying 3,000 or more acre-feet (AF) of water per year prepare an UWMP every five years. The California Health and Safety Code defines a "Public Water System" as one that provides water for human consumption and has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days of the year. The number of municipal connections and volume of water supplied in 2015 by the City is reported in Table 2-1. The City only manages one Public Water System and is not participating in a Regional UWMP.

Table 2-1 Retail Only: Public Water Systems

Public Water System Number	Public Water System Name	Number of Municipal Connections 2015	Volume of Water Supplied 2015
CA3410011	City of Galt	7,187	4,163
	TOTAL	7,187	4,163

NOTES: Units of measure in this UWMP are acre-feet (AF). Source: Large Water System 2015 Annual Report to the Drinking Water Program for Year Ending December 31, 2015.

2.2 INDIVIDUAL PLANNING AND COMPLIANCE

This 2015 UWMP reports solely on the City's service area, as shown in Table 2-2. The City has notified and coordinated with appropriate regional agencies and constituents.

Table 2-2: Plan Identification			
Select Only One	Type of Plan		Name of RUWMP or Regional Alliance *if applicable* *drop down list*
☑	Individual UWMP		
	☐	Water Supplier is also a member of a RUWMP	
	☐	Water Supplier is also a member of a Regional Alliance	
☐	Regional Urban Water Management Plan (RUWMP)		

2.3 CALENDAR YEAR AND UNITS OF MEASURE

The City is reporting on a calendar year basis and therefore, 2015 data includes the months of January to December 2015. Table 2-3 indicates the City's type of reporting year, and the units of measure for reporting water volumes throughout the 2015 UWMP.

Table 2-3: Agency Identification	
Type of Agency (select one or both)	
☐	Agency is a wholesaler
☑	Agency is a retailer
Fiscal or Calendar Year (select one)	
☑	UWMP Tables Are in Calendar Years
☐	UWMP Tables Are in Fiscal Years
If Using Fiscal Years Provide Month and Date that the Fiscal Year Begins (mm/dd)	
Units of Measure Used in UWMP (select from Drop down)	
Unit	AF

2.4 COORDINATION AND OUTREACH

The Urban Water Management Planning Act (UWMPA) requires that the UWMP identify the water agency's coordination with appropriate nearby agencies.

The City coordinated its efforts with relevant agencies and parties to ensure that the data and issues discussed in the plan are presented accurately.

2.4.1 Wholesale and Retail Coordination

Retail agencies that receive a water supply from one or more wholesalers are required to provide wholesalers with projected water demand from that source, in five-year increments

for 20 years. The City does not purchase or receive water from a wholesaler. Therefore, Table 2-4 has been left blank.

Table 2-4 Retail: Water Supplier Information Exchange
The retail supplier has informed the following wholesale supplier(s) of projected water use in accordance with CWC 10631.
Wholesale Water Supplier Name *(Add additional rows as needed)*

2.4.2 Coordination with Other Agencies and the Community

The City solicited participation from other agencies, organizations, and the community for the preparation of the 2015 UWMP. Table 2-5 summarizes how the UWMP preparation was coordinated.

At the present time, the City relies on the underlying groundwater basin as its sole water supply source. Accordingly, the City has endeavored to work closely with the other entities that draw upon the groundwater basin. For the development of this UWMP and other regional water planning efforts focusing on the long-term management of the shared groundwater basin, the City worked closely with area water purveyors and public interest groups.

Table 2-5 Coordination with Appropriate Agencies								
Coordinating Agencies	Participated in Developing the Plan	Notified of UWMP Update	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
City Water Division	✓							
City Wastewater Division	✓							
City Management	✓							
City Planning Department					✓			
Sacramento County Water Agency (SCWA)							✓	
County of Sacramento		✓					✓	
Galt Irrigation District		✓					✓	
Clay Water District		✓					✓	
Omochumne-Hartnell Water District		✓					✓	
General Public		✓						

2.4.3 Notice to Cities and Counties

The City provided formal written notification to Sacramento County, Galt Irrigation District, Clay Water District, and Omochumne-Hartnell Water District that the City's UWMP was being updated. In accordance with the UWMPA, this notification was provided at least 60 days prior to the public hearing of the plan. Electronic copies of the final UWMP will be provided to these agencies no later than 30 days after its submission to DWR. Appendix A contains copies of the outreach documents.

SYSTEM DESCRIPTION

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

3.1 GENERAL DESCRIPTION

The City of Galt (City) is located in Sacramento County, approximately 20 miles south of the City of Sacramento along Highway 99 adjacent to the Northern California Delta Recreation Area and the Cosumnes River Preserve.

The largest land use category is residential (rural, low density, medium density, medium-high density, and high density), which accounts for approximately 58 percent of acreage within the City limits. Commercial, office professional, and light industrial make up approximately 19 percent and other land uses such as mixed use, public/quasipublic, parks, and open space account for approximately 23 percent (2030 Galt General Plan Policy Document, April 2009 Land Use Map).

The current City limits (3,815 acres) represent all incorporated lands that are governed by the City. The City limits roughly extend from Dry Creek on the south to Twin Cities Road on the north; and from Sparrow Drive on the west to Marengo Road on the east. The City's Wastewater Treatment Plant (WWTP) is a detached incorporated island located north of Twin Cities Road and west of Highway 99.

The City Sphere of Influence boundary, adopted by the Sacramento County Local Agency Formation Commission (LAFCO) on January 19, 2011, is coterminous with the City limits and Dry Creek on the south side, and borders Cherokee Lane on the east and Sargent Avenue on the west.

3.1.1 Description of Transmission, Treatment, and Distribution Facilities

On January 1, 1966, the City took over all functions of the County Water District, which at the time was responsible for providing water service to the City. On April 18, 1967, Water Permit No. 67-20 was granted to the City by the State Board of Public Health to "operate a domestic water system within the City's boundaries."

The City owns, maintains, and operates water supply wells, treatment plants, storage tanks, and water lines throughout the City. The City manages and maintains over 60 miles of water lines spanning 1 to 24 inches in diameter, ten groundwater wells, four above ground water storage tanks, and five treatment plants. The City pumps and delivers water to its residential, commercial, industrial, and institutional (CII) customers within the service area.

Future water supply projects include four deep wells to be installed over the next 20-year period (1 replacement, 3 new). The existing well to be replaced may be kept for emergency purposes. Refer to Chapter 6 for detailed information on future water projects.

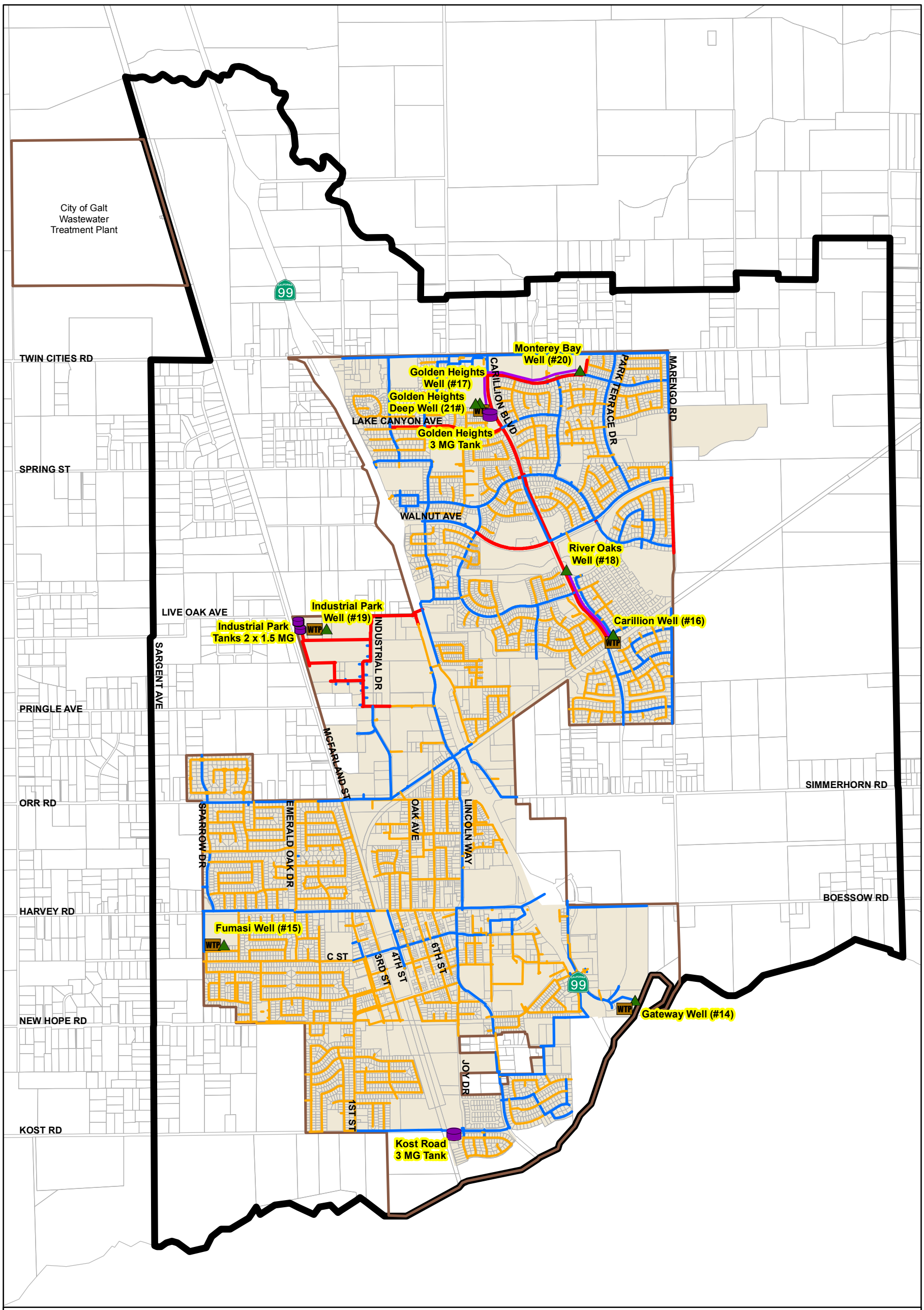
3.2 SERVICE AREA BOUNDARY MAP

Figure 3-1 shows the City limits, water service area, and the main distribution system components (large diameter pipelines and water tanks).

3.3 SERVICE AREA CLIMATE

The City has a Mediterranean-type climate with dry, moderately hot summers and moderately wet winters. The January mean temperature is 44 degrees Fahrenheit (°F), with an average high of 55°F and an average low of 37°F. The July mean temperature is 72°F with an average high of 89°F and an average low of 56°F. Average annual rainfall is approximately 12.8 inches (value reflects the average of the annual averages from 2001 to 2010). The majority of rainfall occurs from October through April. Monthly precipitation has been as high as 7.44 inches 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 0.92 inches during January to 7.47 inches in July. Temperature, rainfall, and ETo averages for the City are presented in Table 3-0. Climate data is from the California Irrigation Management Information Systems (CIMIS) Lodi West Station No. 166 (activated in September 2000).

As of March 2016, the Lodi West Station No. 166 is no longer active on CIMIS. The closest station to Galt is now Staten Island Station No. 242 (activated in November 2015). Station No. 242 has an average monthly ETo of 1.79 inches, an average monthly rainfall of 1.98 inches, and average maximum and minimum monthly air temperatures of 62.4°F and 37.9°F, respectively. Station No. 242 will be used in future UWMP updates.



Legend

Existing Water Distribution System

- Groundwater Well
- Storage Tank
- WTP

Water Pipeline Diameter

- 8" and Smaller
- 10" - 14"
- 16" and Larger
- Raw Water Pipeline

- Current Water Distribution Service Area
- Parcels
- City Limits
- Sphere of Influence

0 1,750 3,500 Feet

Figure 3-1
Current Water Service Area
2015 Urban Water Management Plan Update
City of Galt

Table 3-0 Climate Characteristics					
Month	Standard Monthly Average ETo [1] (inches)	Monthly Average Rainfall [1] (inches)	Monthly Average Temperature [1] (°F)		
			Average	Minimum	Maximum
January	0.92	1.87	44.35	37.16	55.17
February	1.66	2.25	49.61	39.28	61.20
March	3.38	1.66	54.12	41.58	67.48
April	4.51	1.33	56.78	43.71	70.09
May	6.33	0.39	64.42	49.12	79.58
June	7.23	0.07	68.98	53.36	84.77
July	7.47	0.00	71.85	55.79	88.93
August	6.56	0.00	70.14	54.12	87.70
September	4.84	0.06	67.64	51.47	85.53
October	3.14	0.88	59.89	45.63	76.06
November	1.50	1.27	50.99	39.48	64.38
December	0.83	2.95	46.63	38.19	55.96
Annual	**48.36**	**12.8**			

Notes:

Source: CIMIS Station 166 Lodi West. Represents monthly average from January 2001 to December 2010.

3.3.1 Climate Change

The California Water Code (CWC) does not require that UWMPs address climate change. The potential water supply and demand effects related to climate change have not been included in this UWMP.

The Climate Change Vulnerability Assessment in included as Appendix B. No vulnerabilities were identified for *Water Supply*, *Water Quality*, *Sea Level Rise*, *Flooding*, and *Hydropower* categories. For the category of *Water Demand*, it was noted that there are major industries that require cooling/process water and that water use can vary by more than 50 percent seasonally. The City also indicated that water use curtailment measures are effective. For the category of *Ecosystem and Habitat Vulnerability*, it was noted that the region has endangered or threatened species in addition to habitat(s) that are described in the Endangered Species Coalition's Top 10 habitats vulnerable to climate change.

3.4 SERVICE AREA POPULATION AND DEMOGRAPHICS

This section summarizes historical, current, and projected population trends in the City. 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; therefore, such planning activities can only be as effective as the ability of local officials to anticipate population growth.

The City experienced significant growth from 1990 through 2000 with an increase of 9,650 new residents, accounting for a 110 percent change in population. From 2000 through 2010, the population grew from 19,472 (2000 Census) to 23,647 (2010 Census). Data for 2015 through 2030 is from the 2030 General Plan (City of Galt 2030 General Plan, Existing Conditions Report, November 2005 and City of Galt General Plan, Policy Document, Public Review Draft, July 2008, Mintier & Associates et al.). The 2030 General Plan assumed an annualized population growth rate of 3.4 percent to forecast the City's population. More recently, the City's Water Rate Cost of Service Study assumed an annualized population growth rate of 2 percent (Resolution No. 2016-16). The current and projected population for the City is contained in Table 3-1. The projected populations were estimated based on an annualized population growth rate of 2 percent.

Table 3-1 Retail: Population - Current and Projected

Population Served	2015	2020	2025	2030	2035	2040*(opt)*
	24,419	26,960	29,766	32,864	36,285	40,061

NOTES: 2015 population is per SB X7-7 Method for Population Estimates 2 (Persons-per-Connection Method). Projected populations assume 2% annual population growth.

3.4.1 Other Demographic Factors

The City is historically an agricultural based community, and has become an important transportation hub for rail and trucking. It has also evolved into a residential community for the Sacramento and San Joaquin Counties. The demographic information (2014 Galt Housing Element) indicates that the majority of residents are families with children. According to the 2014 Galt Housing Element, employment is focused in educational services, health care, and social assistance (18 percent); retail trade (13 percent); construction (11 percent); transportation, warehousing, and utilities (10 percent);

professional, scientific, management, and administrative services (9 percent), and public administration (8 percent) industries. Many residents who have administrative and professional jobs commute to Stockton or Sacramento (2014 Galt Housing Element).

Analyzing demographic data can yield important information about possible shifts in demand for City water service. The median age in the City is 32.4, with 72.6 percent of the population being over 16 years of age (2010 Census). The population is split 49.3 to 50.7 percent male to female, respectively. The number of housing units was 7,262 (2010 Census). The median household income for the City was $58,090 in 2013 (www.ci.galt.ca.us). The California Employment Development Department (EDD) reported a 14.7 percent unemployment rate for 2010 and a 7.1 percent unemployment rate for 2015.

SYSTEM WATER USE

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. This section describes the water system demands and water demand projections.

4.1 RECYCLED VERSUS POTABLE AND RAW WATER DEMAND

This Chapter covers potable and raw water demand. Recycled water is addressed comprehensively in Chapter 6.

4.2 WATER USES BY SECTOR

Water demands served by the City of Galt (City) are primarily residential (includes single-family residential [SFR] and multi-family residential [MFR]), commercial, industrial, and institutional (CII), and landscape irrigation. The following water use sectors and associated metered and unmetered deliveries, as shown in Table 4-0, were reported in the 2010 UWMP.

Table 4-0 2010 Water Deliveries

Use Type	Metered Volume	Unmetered Volume	Total Volume
Single- and Multi- Family Residential	927	1,666	2,593
Commercial, Institutional, and Industrial	2,348	0	2,348
Irrigation	233	0	233
Agriculture	0	0	0
Other	0	0	0
Total	**3,508**	**1,666**	**5,174**

Notes: Units of measure in this UWMP are acre-feet (AF). Source: City 2010 metered data and production records.

As of 2016, all connections in the City are metered. The actual demands for potable water are presented in Table 4-1 for the 2015 calendar year.

Table 4-1 Retail: Demands for Potable and Raw Water - Actual			
Use Type (Add additional rows as needed)	2015 Actual		
Drop down list May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool	Additional Description (as needed)	Level of Treatment When Delivered Drop down list	Volume
Single Family	Includes Multi-family	Drinking Water	3,100
Landscape		Drinking Water	504
Losses		Drinking Water	208
Other	CII	Drinking Water	271
Other	Unbilled authorized consumption	Drinking Water	80
		TOTAL	4,163

NOTES: Units of measure in this UWMP are acre-feet (AF). Unbilled authorized consumption includes backwashing filters, sewer cleaning, and street sweeping.

Table 4-2 contains the projected potable and raw water demands from 2020 through 2040. The demand projections are based on the City's 2020 target water use (includes conservation) and the projected populations. To project the number of connections per customer sector, it was assumed that the number of connections will grow consistently with the projected water demands; this is based on the relative distribution of customer types, accounts, and water use reported for 2015. However, the customer sector water deliveries in Table 4-2 are only general estimates of projected use, and may vary significantly based on future development and water conservation measures taken by each customer sector. Ultimately, the implementation, magnitude, and type of future development will determine the distribution of water use per customer sector.

Table 4-2 Retail: Demands for Potable and Raw Water - Projected						
Use Type (Add additional rows as needed)	Additional Description (as needed)	Projected Water Use Report To the Extent that Records are Available				
Drop down list May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool		2020	2025	2030	2035	2040-opt
Single Family	Includes Multi-family	3,913	4,320	4,770	5,266	5,815
Landscape		636	702	775	856	945
Losses		263	290	320	354	390
Other	CII	342	378	417	461	509
Other	Unbilled auth. consumption	101	111	123	135	149
	TOTAL	5,255	5,802	6,405	7,072	7,808

NOTES: Units of measure in this UWMP are acre-feet (AF). Unbilled authorized consumption may include backwashing filters, sewer cleaning, and street sweeping.

The City's total water demands for potable and raw water, and recycled water demand, based on the figures presented in Table 4-1, Table 4-2, and Table 6-4, are summarized in Table 4-3. No infrastructure exists at this time to support recycled water use within the City. However, the City does provide undisinfected secondary effluent for agricultural irrigation.

Table 4-3 Retail: Total Water Demands

	2015	2020	2025	2030	2035	2040 *(opt)*
Potable and Raw Water *From Tables 4-1 and 4-2*	4,163	5,255	5,802	6,405	7,072	7,808
Recycled Water Demand* *From Table 6-4*	603	603	603	603	603	603
TOTAL WATER DEMAND	4,766	5,858	6,405	7,008	7,675	8,411

**Recycled water demand fields will be blank until Table 6-4 is complete.*

NOTES: Units of measure in this UWMP are acre-feet (AF).

4.3 DISTRIBUTION SYSTEM WATER LOSSES

Distribution system water losses ("real" losses) are the physical water losses from the water distribution system and the supplier's storage facilities, up to the point of customer consumption. The City's distribution system losses are not yet quantified using the American Water Works Association (AWWA) Method Guidance "Water Resources Water Audit Manual" as the City has only recently completed metering of all customers. The AWWA method will be used in the following years and will be included in the 2020 UWMP. The distribution water losses have been estimated based on the December 2015 metered values for water produced at the wells, water delivered at the connections, and the unbilled authorized use reported. Analysis of the December 2015 data resulted in estimated losses of 5 percent (10 AF). The calculated distribution system water loss for the most recent 12-month period available (2015 calendar year) extrapolates the losses determined for December 2015 to 12 months and is reported in Table 4-4.

Table 4-4 Retail: 12 Month Water Loss Audit Reporting	
Reporting Period Start Date (mm/yyyy)	Volume of Water Loss*
01/2015	120
** Taken from the field "Water Losses" (a combination of apparent losses and real losses) from the AWWA worksheet.*	
NOTES: Units of measure in this UWMP are acre-feet (AF). Assumes monthly loss of 10 AF.	

4.4 ESTIMATING FUTURE WATER SAVINGS

"Passive" savings are water savings from codes, standards, ordinances, or transportation and land use plans. As shown in Table 4-5, future water savings are not included in the total water use projections (Table 4-2). The City is recently metered; therefore, future water savings will be included in the 2020 UWMP.

Table 4-5 Retail Only: Inclusion in Water Use Projections	
Are Future Water Savings Included in Projections? (Refer to Appendix K of UWMP Guidebook) *Drop down list (y/n)*	No
If "Yes" to above, state the section or page number, in the cell to the right, where citations of the codes, ordinances, etc... utilized in demand projections are found.	
Are Lower Income Residential Demands Included In Projections? *Drop down list (y/n)*	Yes

4.5 WATER USE FOR LOWER INCOME HOUSEHOLDS

As shown in Table 4-5, lower income household demand projections are included in the total water use projections (Table 4-2 and Table 4-3).

The most recent Sacramento Area Council of Governments (SACOG) Regional Housing Needs Plan (RHNP) has determined that Galt has a housing construction need of 679 units for the planning period 2013 - 2021. Of these units, 19.3 percent should be affordable to very low-income households, 13.4 percent to low-income households, 18.6 percent moderate-income households, and 48.7 percent above moderate-income households. Very low- and low-income housing needs represent 222 housing units of the City's total housing allocation.

The 2014 Housing Element lists 239 housing units (new construction, housing rehabilitation, and preservation of at-risk rental housing) for extremely low-, very low-, and low-income levels. This exceeds the regional housing need allocation (RHNA) of 222 low- and very low-income housing units (2013-2021 SACOG RHNP).

Some of the policies related to providing low-income housing in the City's 2014 Housing Element are listed below:

- Encourage the development of housing to meet the needs of extremely low-, very low-, low-, and moderate-income families
- Allow for the development of affordable housing
- Review progress toward meeting housing affordability targets and implementation of each housing policy
- Encourage developers to utilize innovative approaches to providing affordable housing in the City

Chapter 5

BASELINES AND TARGETS

The Urban Water Management Planning Act (UWMPA) requires that the Urban Water Management Plan (UWMP) identify the baseline water demand, urban water use target, and interim urban water use target for the City of Galt (City).

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 (Senate Bill [SB] X7-7).

5.1 BASELINE PERIODS

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 its baseline. If 10 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 to customers in 2008, a 10-year average must be 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 10-year baseline range (2000 to 2009) and 5-year baseline range (2005-2009) is included in Table 1 of the SB X7-7 Verification Forms (Appendix C).

The 2010 UWMP 10-year baseline range was from 1999 to 2008. Due to the service area population methodology (see Section 5.2.1), the baseline range was changed as records for the number of connections for the year 1999 was not available.

5.2 SERVICE AREA POPULATION

Service area population is reported for each year in the baseline periods as well as 2015, the compliance year, in Table 3 of the SB X7-7 Verification Forms (Appendix C). The UWMPA requires that the 2010 census data be used in the baseline population calculations for the 2015 UWMP. The City did not use the 2010 census data for its baseline population calculations in the 2010 UWMP; therefore, the City has recalculated their baseline populations as described below.

5.2.1 Population Methodology

The City's service area boundaries overlap by 92.6 percent with the boundaries of the City limits (Wastewater Treatment Plant [WWTP] acreage excluded)[1]; therefore, the persons-per connection methodology for population estimates is used as shown in Table 2 of the SB X7-7 Verification Forms (Appendix C). The City believes that the number of connections in 2007 as reported on the annual report may be a typo which results in a spike in population in 2007 as seen in Table 3 of the SB X7-7 Verification Forms (Appendix C).

The persons-per connection methodology is based on the alternative methodology for service area population found in Appendix A of the Methodologies for Calculating Baseline and Compliance per Capita Urban Water Use (October 1, 2010). The 2010 Census reported 23,647 residents in the City. Using the 2010 service area boundary with the 2010 census blocks, the 2010 service area population was determined to be 23,518. Population estimates were determined by anchoring the year 2010 residential connections to the year 2010 service area population, followed by scaling the estimate backward in the baseline period using active connections for the corresponding year.

A single ratio was developed for the year 2000 and 2010. Connections for the baseline years were grouped into a residential category that includes single-family and multi-family connections. The single ratio for persons per connection for the year 2000 and 2010 was calculated at 3.6 and 3.4, respectively. The 2010 ratio was applied to the years in the baseline period to estimate the population over the baseline period.

5.3 GROSS WATER USE

"Gross water use" means the total volume of water, whether treated or untreated, entering the distribution system of an urban retail water supplier with certain acceptable exclusions (i.e., recycled water, long term storage, conveyed to another urban water supplier, and agricultural use). Gross water use is reported for each year in the baseline periods as well as 2015, the compliance year, in Table 4 of the SB X7-7 Verification Forms (Appendix C).

As shown in Table 4-C.4 of the SB X7-7 Verification Forms (Appendix C), the City is not eligible for process water deductible exclusion. The City has not subtracted process water from their gross water use.

5.4 BASELINE DAILY PER CAPITA WATER USE

The baseline daily per capita water use in each of the baseline years is calculated in Table 5 of the SB X7-7 Verification Form (Appendix C) by dividing annual gross water use by annual service area population. The average baseline daily per capita water use is summarized in Table 6 of the SB X7-7 Verification Form (Appendix C) for the 10-year baseline, 5-year baseline, and 2015 compliance year.

5.5 2015 AND 2020 TARGETS

The UWMPA requires urban water suppliers to determine the interim and urban water use targets for 2015 and 2020, respectively. As shown in Table 7 of the SB X7-7 Verification Forms (Appendix C), the 2020 target method is Method 1.

The 2015 interim water use target is the planned daily per capita water use in 2015, a value halfway between the baseline daily per capita water use and the 2020 urban water use target (2015 UWMP Guidebook).

The 2020 urban water use target is how much water is planned to be delivered, in 2020 to each resident within an urban water supplier's distribution system area, taking into account water conservation practices that currently are and plan to be implemented (2015 UWMP Guidebook).

5.5.1 Target Methods

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.

5.5.1.1 Method 1 – 80 Percent of Base Daily Per Capita Water Use

Method 1 requires an urban water supplier to first 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 10-year baseline daily per capita use of 217 gallons per capita per day (gpcd) determined previously, the target use for Method 1 is 174 gpcd. This is shown in Table 7-A of the SB X7-7 Verification Forms (Appendix C).

5.5.1.2 Method 2 – Performance Standards

Method 2 requires water suppliers to use baseline commercial, industrial, and institutional (CII), 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 and lack of metered usage data over the baseline period, it is not feasible for the City to use this methodology.

5.5.1.3 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. In order to determine the target using Method 3, 95 percent of the region-specific conservation goal is calculated. Based on a target of 174 gpcd for the San Joaquin River region, the Method 3 target is 165 gpcd. This is shown in Table 7-E of the SB X7-7 Verification Forms (Appendix C).

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[1] Acreage - City Limits 3469.13, Service Area 3213.38, WWTP 294.35, SOI 8817.10

5.5.1.4 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
- 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 over the baseline period (2000-2009); therefore, it is not feasible for the City to use this methodology.

5.5.2 5-Year Baseline - 2020 Target Confirmation

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 California Department of Water Resources (DWR). To confirm the target, the 5-year average baseline (215 gpcd) previously determined is used. In order to meet the minimum criteria, the chosen 2020 urban water use target must fall below 95 percent of the 5-year baseline, which for the City is 204 gpcd. This is shown in Table 7-F of the SB X7-7 Verification Forms (Appendix C).

5.5.3 2015 Interim Urban Water Use Target

The 2015 Interim Target is the value halfway between the 10- year baseline gpcd and the confirmed 2020 Target. The Interim 2015 Target is 196 gpcd, as shown in Table 8 of the SB X7-7 Verification Forms (Appendix C).

5.5.4 Summary of Baselines and Targets

A summary of the various baselines, 2015 interim use target, and the confirmed 2020 target are summarized in Table 5-1. The 2020 water use target was determined using Method 1, which corresponds to 80 percent of the 10-year baseline. According to the 2015 UWMP Guidebook, this target is valid since it is less than the target confirmation criteria of 204 gpcd.

Table 5-1 Baselines and Targets Summary *Retail Agency or Regional Alliance Only*					
Baseline Period	Start Year	End Year	Average Baseline GPCD*	2015 Interim Target *	Confirmed 2020 Target*
10-15 year	*2000*	*2009*	*217*	*196*	*174*
5 Year	*2005*	*2009*	*215*		
*All values are in Gallons per Capita per Day (GPCD)					

5.6 COMPLIANCE DAILY PER CAPITA WATER USE (GPCD)

"Compliance daily per-capita water use means the gross water use during the final year of the reporting period. Water suppliers are required to calculate their actual 2015 water use (2015 calendar year) and evaluate whether their per capita 2015 target use was met and assess progress towards achieving their 2020 target water use. Refer to Table 5-2 and SB X7-7 Table 7-9 (Appendix C) for 2015 compliance.

Table 5-2: 2015 Compliance *Retail Agency or Regional Alliance Only*								
Actual 2015 GPCD*	2015 Interim Target GPCD*	Optional Adjustments to 2015 GPCD *From Methodology 8*					2015 GPCD* *(Adjusted if applicable)*	Did Supplier Achieve Targeted Reduction for 2015? Y/N
		Extraordinary Events*	Economic Adjustment*	Weather Normalization*	TOTAL Adjustments*	Adjusted 2015 GPCD*		
152	196	0	0	0	0	152	152	Yes
All values are in Gallons per Capita per Day (GPCD)								

The 2020 conservation target calculated for the City does not represent a significant effort to reach. In 2015, the City usage was 152 gpcd and the 2015 interim target is 196 gpcd. Therefore, meeting the 2020 target (174 gpcd) should not be difficult for the City.

From 2010 to 2015, City water usage decreased by approximately 47 gpcd. This decrease may have been due to the drought, recession, local business closures, and/or the City's water conservation efforts. The savings associated with the demand management measures (DMMs) that the City is currently implementing and plans to implement will continue to result in a reduction of water use, helping the City meet the 2020 water use target. The City will avoid placing a disproportionate burden on any customer sector to meet the 2020 water use target.

SYSTEM SUPPLIES

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 20 years.

6.1 PURCHASED OR IMPORTED WATER

The City of Galt (City) does not purchase or import any water from other water suppliers or other entities.

6.2 GROUNDWATER

The City currently utilizes local groundwater as its sole water supply source. The City extracts its water supply from the underlying groundwater San Joaquin Valley Basin Cosumnes Subbasin via eight active groundwater wells scattered throughout the water service area (refer to Figure 3-1). The pumping capacities of the City's active wells (Table 6-0) currently range from 600 to 1,900 gallons per minute (gpm).

Table 6-0 Water Supply Wells

Well Name	Well No.	Depth, feet	Flow, gpm	Notes
Gateway	14	750	600	Water treated for manganese at the site.
Fumasi	15	652	700	Water treated at Fumasi Water Treatment Plant (WTP) for manganese and arsenic. Currently only used for fire flow condition. Future rehab of filters and replacement of media scheduled.
Carillon	16	870	1,500	Water treated at Carillon WTP for manganese and arsenic.
Golden Heights	17	930	1,250	Water treated at the Golden Heights WTP for manganese. Well is in stand-by mode. Well continuously used.
Golden Heights Deep Well	21	1,539	1,700	Water treated at the Golden Heights WTP.
River Oaks	18	91 3	1,300	Water treated at the Carillon WTP for manganese and arsenic.
Industrial Park	19	1,000	1,900	Water treated at the Industrial WTP for arsenic.
Monterey Bay	20	850	1,450	Water treated at the Golden Heights WTP for manganese. Well continuously used.

6.2.1 Basin Description

The City is located within the geomorphic province known as the Central Valley, which is divided into the Sacramento Valley and the San Joaquin Valley. The groundwater underlying the City is part of the larger San Joaquin Valley Groundwater Basin within the San Joaquin River Hydrologic Region. The City relies upon groundwater from the Cosumnes Subbasin (California Department of Water Resources [DWR] Groundwater Basin Number 5-22.16) of the San Joaquin Valley Groundwater Basin as its sole source of domestic potable water. The Cosumnes Subbasin is an unadjudicated basin that supports both municipal and agricultural users. DWR Bulletin 118, "California's Groundwater" contains a detailed description of the Cosumnes Subbasin and its characteristics and conditions. A copy of the Cosumnes Subbasin description is included in Appendix D (last updated in February 3, 2006).

The City's groundwater wells were historically drilled to a depth of approximately 1,000 feet. At these depths, the groundwater quality in the City typically requires treatment for manganese and arsenic. In recent years, City staff learned that the City of Elk Grove drilled a well to a new aquifer at a depth of approximately 1,700 feet. This deeper aquifer (Merhten Formation) has low arsenic levels and has also been producing a higher water flow yield. The City installed the Kost Road Monitoring Well in the same lower aquifer and found no detectable arsenic levels. For this reason, the City constructed a deep well at the Golden Heights location.

6.2.2 Groundwater Management

The City participated with the South Area Water Council in preparation of a South Basin Groundwater Management Plan (GWMP). The October 2011 South Basin GWMP is included in Appendix E. Historical GWMPs that cover the Cosumnes Subbasin include the Southeast Sacramento County Agricultural Water Authority GWMP (December 2002), Sacramento Metropolitan Water Authority GWMP (December 2003), Eastern San Joaquin Groundwater Basin GWMP (September 2004), and the GWMP North San Joaquin Water Conservation District (May 1996).

6.2.3 Overdraft Conditions

Based upon the water balance provided in Bulletin 118, groundwater outflows exceed groundwater inflows by approximately 4,300 acre-feet per year (AFY), suggesting a basin overdraft situation may exist. However, assuming a +/- 5 percent error, the water balance deficit of 4,300 AFY is potentially inconclusive with regard to the overall health of the basin.

DWR has continuously monitored the groundwater level at the City's Gateway Well since 1961. Over the period of record, there are two distinctive periods of declining ground water levels (first period is from 1963 to 1980 and the second is from 1984 to 1992). In each instance, over time, the groundwater levels have recovered such that the depth to groundwater either met or exceeded the groundwater level at the beginning of the period of

decline. Figure 6-1 shows the groundwater levels at the well from 1961 to 2012 (Source: California Statewide Groundwater Elevation Monitoring Program).

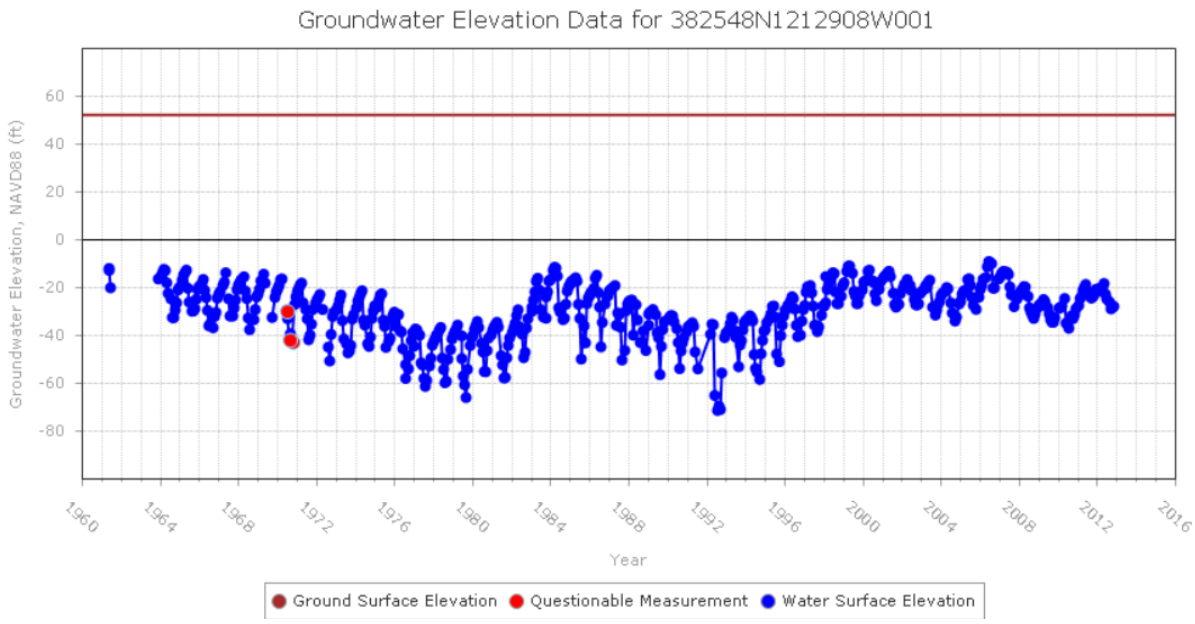

Figure 6-1 Groundwater Levels

6.2.4 Historical Groundwater Pumping

The historical volume of groundwater pumped by the City over the past five years is provided in Table 6-1. The City's water supplies are entirely obtained from the San Joaquin Valley Groundwater Basin Cosumnes Subbasin.

Table 6-1 Retail: Groundwater Volume Pumped						
☐	Supplier does not pump groundwater. The supplier will not complete the table below.					
Groundwater Type *Drop Down List* *May use each category multiple times*	Location or Basin Name	2011	2012	2013	2014	2015
Add additional rows as needed						
Alluvial Basin	San Joaquin Valley Basin Cosumnes Subbasin	5120	5699	6132	5382	4163
	TOTAL	5,120	5,699	6,132	5,382	4,163
NOTES: Units of measure in this UWMP are acre-feet (AF). Source: City's annual Monthly Production spreadsheets.						

6.3 SURFACE WATER

The City does not have any surface water sources as part of its water supply.

6.4 STORMWATER

The City has not identified any opportunities related to stormwater recapture to offset potable water use.

6.5 WASTEWATER AND RECYCLED WATER

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.

6.5.1 Recycled Water Coordination

The City owns and operates the Wastewater Treatment Plant (WWTP) that collects and treats all wastewater within the service area. Therefore, the City coordinates recycled water use within the service area and does not rely on an outside facility or agency.

The City's Recycled Water Evaluation Plan (June 2010) explored the feasibility of utilizing recycled water as a new source of water for landscape and/or agricultural irrigation within and near its existing and future City limits. The use of recycled water would supplement the groundwater supply typically used for these demands.

The Recycled Water Evaluation Plan identified a total of 63 potential recycled water customers, which included existing and future landscape irrigation customers, existing industrial customers, future landscape irrigation of commercial, industrial, and high density residential land use areas, and irrigated areas within the Caltrans right of way of Highway 99.

Future development of a recycled water distribution system will require the construction of a transmission system to serve potential existing and future customers. The implementation of these improvements will depend on the proximity to the WWTP as well as the City's growth patterns. A possible phasing of the improvements identified in the Recycled Evaluation Plan was developed based on the phasing of improvements in the Water Distribution System Master Plan and proximity to the WWTP.

6.5.2 Wastewater Collection, Treatment Systems, and Disposal

6.5.2.1 Wastewater Collected Within Service Area

The City owns, maintains, and operates the WWTP, gravity sewer pipelines and force mains, sewer lift stations, and pump stations. The WWTP is located west of Highway 99 and north of Twin Cities Road. The City collects wastewater from residential, commercial, industrial, and institutional (CII) customers within the service area. The WWTP is permitted for 3.0 million gallons per day (mgd). It currently operates at approximately 2.2 mgd. Treated effluent is used for irrigation purposes and/or is discharged to the Laguna Creek.

The WWTP consists of secondary treatment, tertiary filtration, and ultraviolet disinfection. Treatment processes include coarse bar screening, activated sludge, extended aeration in two oxidation ditches, two secondary clarifiers, tertiary filtration, and ultraviolet disinfection. Prior to the addition of UV disinfection, the WWTP utilized chlorine gas disinfection and dechlorination with sulfur dioxide. As part of Tertiary Upgrade Project in 2011, tertiary filtration, ultraviolet disinfection, and biosolids improvements (vacuum assisted dewatering system) were constructed. The WWTP also includes an Effluent Storage Reservoir with a capacity of 70 million gallons.

Table 6-2 contains current wastewater volumes collected within the City limits in 2015.

Table 6-2 Retail: Wastewater Collected Within Service Area in 2015						
☐	There is no wastewater collection system. The supplier will not complete the table below.					
	Percentage of 2015 service area covered by wastewater collection system *(optional)*					
	Percentage of 2015 service area population covered by wastewater collection system *(optional)*					
Wastewater Collection			Recipient of Collected Wastewater			
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? *Drop Down List*	Volume of Wastewater Collected from UWMP Service Area 2015	Name of Wastewater Treatment Agency Receiving Collected Wastewater	Treatment Plant Name	Is WWTP Located Within UWMP Area? *Drop Down List*	Is WWTP Operation Contracted to a Third Party? *(optional)* *Drop Down List*
Add additional rows as needed						
City of Galt	Metered	2,111	City of Galt	Wastewater Treatment Plant	Yes	No
Total Wastewater Collected from Service Area in 2015:		2,111				
NOTES: Units of measure in this UWMP are acre-feet (AF).						

6.5.2.2 Wastewater Treatment and Discharge within Service Area

The City owns an agricultural reuse site where fodder crops are grown (crops that are not directly used for human consumption). The reuse site consists of 164-acres of agricultural property. The treated effluent used at the site is undisinfected secondary effluent. Disinfected tertiary treated effluent is discharged to Laguna Creek at Discharge Point No. 001 (monitoring location Eff-001) through an outfall to the Skunk Creek channel. The City is not required to discharge a specified amount to Laguna Creek.

Table 6-3 identifies the volume of treated wastewater disposed of within the service area in 2015.

Table 6-3 Retail: Wastewater Treatment and Discharge Within Service Area in 2015										
☐	No wastewater is treated or disposed of within the UWMP service area. The supplier will not complete the table below.									
							2015 volumes			
Wastewater Treatment Plant Name	Discharge Location Name or Identifier	Discharge Location Description	Wastewater Discharge ID Number *(optional)*	Method of Disposal *Drop down list*	Does This Plant Treat Wastewater Generated Outside the Service Area?	Treatment Level *Drop down list*	Wastewater Treated	Discharged Treated Wastewater	Recycled Within Service Area	Recycled Outside of Service Area
Add additional rows as needed										
Wastewater Treatment Plant and Reclamation Facility	Eff-001	Laguna Creek		River or creek outfall	No	Tertiary	2,111	1,508	603	0
						Total	2,111	1,508	603	0
NOTES: Units of measure in this UWMP are acre-feet (AF).										

6.5.3 Recycled Water System

No infrastructure exists at this time to support recycled water use within the City. However, the City does provide undisinfected secondary effluent for agricultural irrigation as shown in Table 6-4 and Table 6-5 and described in Section 6.5.2.

Table 6-4 Retail: Current and Projected Recycled Water Direct Beneficial Uses Within Service Area								
☐	Recycled water is not used and is not planned for use within the service area of the supplier. The supplier will not complete the table below.							
Name of Agency Producing (Treating) the Recycled Water:		City of Galt						
Name of Agency Operating the Recycled Water Distribution System:		City of Galt						
Supplemental Water Added in 2015								
Source of 2015 Supplemental Water								
Beneficial Use Type	General Description of 2015 Uses	Level of Treatment *Drop down list*	2015	2020	2025	2030	2035	2040 (opt)
Agricultural irrigation	WWTP Reuse Site Irrigation	Secondary, Undisinfected	603	603	603	603	603	603
Landscape irrigation (excludes golf courses)			0	0	0	0	0	0
Golf course irrigation			0	0	0	0	0	0
Commercial use			0	0	0	0	0	0
Industrial use			0	0	0	0	0	0
Geothermal and other energy production			0	0	0	0	0	0
Seawater intrusion barrier			0	0	0	0	0	0
Recreational impoundment			0	0	0	0	0	0
Wetlands or wildlife habitat			0	0	0	0	0	0
Groundwater recharge (IPR)*			0	0	0	0	0	0
Surface water augmentation (IPR)*				0	0	0	0	0
Direct potable reuse				0	0	0	0	0
Other *(Provide General Description)*			0	0	0	0	0	0
		Total:	603	603	603	603	603	603
**IPR - Indirect Potable Reuse*								
NOTES: Units of measure in this UWMP are acre-feet (AF).								

Table 6-5 Retail: 2010 UWMP Recycled Water Use Projection Compared to 2015 Actual			
☐	Recycled water was not used in 2010 nor projected for use in 2015. The supplier will not complete the table below.		
Use Type		2010 Projection for 2015	2015 Actual Use
Agricultural irrigation		2,554	603
Landscape irrigation (excludes golf courses)		0	0
Golf course irrigation		0	0
Commercial use		0	0
Industrial use		0	0
Geothermal and other energy production		0	0
Seawater intrusion barrier		0	0
Recreational impoundment		0	0
Wetlands or wildlife habitat		0	0
Groundwater recharge (IPR)		0	0
Surface water augmentation (IPR)		0	0
Direct potable reuse		0	0
Other	*Type of Use*	0	0
	Total	2,554	603
NOTES: Units of measure in this UWMP are acre-feet (AF).			

6.5.4 Actions to Encourage and Optimize Future Recycled Water Use

The City supports use of recycled water and has taken steps to promote the use of recycled water and increase awareness among City stakeholders. No financial strategies have been developed, since the recycled water distribution system only exists in concept at this time. As shown in Table 6-6, the City does not plan to expand recycled water use at this time.

Table 6-6 Retail: Methods to Expand Future Recycled Water Use			
☑	Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.		
6-7	Provide page location of narrative in UWMP		
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use
Add additional rows as needed			
		Total	0
NOTES: Units of measure in this UWMP are acre-feet (AF).			

6.6 DESALINATED WATER OPPORTUNITIES

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

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 since the City is not located near the coast or a brackish groundwater source.

6.7 EXCHANGES OR TRANSFERS

The UWMPA requires the UWMP to address the opportunities for development of short- or long-term transfer or exchange opportunities. The City is relatively isolated from neighboring potable water systems and, due to this isolation, the City is not participating in any inter-connection programs with neighboring purveyors. Therefore, transfer or exchange opportunities are not immediately available to the City.

6.7.1 Exchanges

Water exchanges entail water being delivered by one water user to another water user, with the receiving water user providing water in return at a specified time or when the conditions of the parties' agreements are met. The City does not have any planned or potential water exchanges.

6.7.2 Transfers

Water transfers entail a temporary or long-term change in the point of diversion, place of use, or purpose of use due to a transfer, sale, lease, or exchange of water or water rights. The City does not have any planned or potential water transfers.

6.7.3 Emergency Interties

The City does not have any emergency interties in which transfers of water can be made.

6.8 FUTURE WATER PROJECTS

The current City policy is to accommodate new potable water demands through additional groundwater pumping. This pumping capacity is to be provided via new wells equipped with treatment facilities for disinfection, as well as for the removal of iron, manganese, or other constituents as required by Division of Drinking Water (formerly the California Department of Public Health) standards.

Table 6-7 contains the future water projects listed in the 2010 Water Distribution System Master Plan Capital Improvement Plan (CIP). Timing of the projects reflects the project phasing shown in the CIP; however, the timing of these projects may be postponed due to changes in population growth and water demands. The projects expected increase in the

water supply has not been totaled as some of the well projects may replace existing wells or projects reflect upgrades to existing WTPs.

Table 6-7 Retail: Expected Future Water Supply Projects or Programs						
☐	No expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Supplier will not complete the table below.					
☐	Some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format.					
	Provide page location of narrative in the UWMP					
Name of Future Projects or Programs	Joint Project with other agencies?		Description (if needed)	Planned Implementation Year	Planned for Use in Year Type *Drop Down List*	Expected Increase in Water Supply to Agency *This may be a range*
	Drop Down List (y/n)	*If Yes, Agency Name*				
Add additional rows as needed						
One Well	No			2020	All Year Types	
Future WTP and Three Wells	No			2020	All Year Types	
Future WTP and Three Wells	No			2030	All Year Types	
NOTES: Units of measure in this UWMP are acre-feet (AF).						

6.9 SUMMARY OF EXISTING AND PLANNED SOURCES OF WATER

The actual source and volume of water for the year 2015 is presented in Table 6-8. The projected water supply for 2020, 2025, 2030, 2035, and 2040 are included in Table 6-9. The projected water supply is based on demand projections and incorporates water conservation associated with Senate Bill (SB) X7-7. The projected supply available to the City assumes that new wells will be developed in the future if warranted by demand. As shown in Table 6-9, the City anticipates it can supply all of its water demands with groundwater from the Cosumnes Subbasin through the planning horizon.

6.10 CLIMATE CHANGE IMPACTS TO SUPPLY

The California Water Code (CWC) does not require that UWMPs address climate change. The potential water supply effects related to climate change have not been included in this UWMP. However, the Integrated Regional Water Management (IRWM) Climate Change Vulnerability Assessment has been completed and is included as Appendix B (Refer to Section 3.3.1).

Table 6-8 Retail: Water Supplies — Actual				
Water Supply	Additional Detail on Water Supply	2015		
Drop down list *May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool*		Actual Volume	Water Quality *Drop Down List*	Total Right or Safe Yield *(optional)*
Add additional rows as needed				
Purchased or Imported Water		0		
Groundwater		4,163	Raw Water	
Surface water		0		
Stormwater Use		0		
Recycled Water		0		
Desalinated Water		0		
Exchanges		0		
Transfers		0		
	Total	4,163		0
NOTES: Units of measure in this UWMP are acre-feet (AF). Source: City's annual Monthly Production spreadsheets.				

Table 6-9 Retail: Water Supplies — Projected											
Water Supply	Additional Detail on Water Supply	Projected Water Supply *Report To the Extent Practicable*									
Drop down list *May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool*		**2020**		**2025**		**2030**		**2035**		**2040** *(opt)*	
		Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*
Add additional rows as needed											
Purchased or Imported Water		0		0		0		0		0	
Groundwater		5,255		5,802		6,405		7,072		7,808	
Surface water		0		0		0		0		0	
Stormwater Use		0		0		0		0		0	
Recycled Water		603		603		603		603		603	
Desalinated Water		0		0		0		0		0	
Exchanges		0		0		0		0		0	
Transfers		0		0		0		0		0	
	Total	5,858	0	6,405	0	7,008	0	7,675	0	8,411	0
NOTES: Units of measure in this UWMP are acre-feet (AF).											

Chapter 7

WATER SUPPLY RELIABILITY

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.

7.1 CONSTRAINTS ON WATER SOURCES

7.1.1 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. This section examines the reliability of the water supply available to the City of Galt (City), under both normal and dry conditions.

When assessing the adequacy of the water supply, the City's current water system is limited by the pumping and water system storage capacity. If warranted by demand, it is assumed the City would construct new wells and supply facilities. When assessing the vulnerability of the water supply due to seasonal or climatic changes, the City groundwater supply has not been impacted in the past.

Table 7-0 contains a summary of factors affecting water supply reliability and that may pose an opportunity for inconsistency in supply. Water quantity represents the potential supply limitation of the pumping capacity or if the groundwater basin was ever considered to be in overdraft conditions. Water quality factors represent iron, manganese, and arsenic (refer to Section 6.2). Climatic factors are selected as the City would be required to comply with state mandates for conservation.

7.1.2 Water Supply Quality

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

In general, groundwater quality in the Cosumnes Subbasin is very good, and as such has a limited effect on the City's ability to provide its service area with a reliable source of high quality drinking water. Nor does it have a significant effect on water management strategies or supply reliability. The groundwater is typically only treated for manganese and arsenic before distribution which is managed at the well site. The City's drinking water meets all applicable water quality regulations (See Appendix F for a copy of the City's 2014 Annual Drinking Water Quality Report).

Table 7-0 Factors Resulting in Inconsistency of Supply							
Source Information		Source Limitation					
Water Supply Sources	Specific Source Name	Water Quantity(1)	Legal	Environmental	Water Quality(2)	Climatic(3)	Additional Information
Groundwater	San Joaquin Valley Basin Cosumnes Subbasin	Yes	-	-	Yes	Yes	-

Notes:

1. Limited by pumping capacity.
2. Water quality factors may require additional treatment of the groundwater.
3. The City would be required to comply with state mandates for conservation.

7.2 RELIABILITY BY TYPE OF YEAR

This section considers the City's water supply reliability during three water scenarios: average water year, single-dry water year, and multiple-dry water years. An average year is also referred to as a "normal" year.

These scenarios are defined as follows:

- **Average Year:** a year, or an averaged range of years, that most closely represents the average water supply available to the City. Generally 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:** the year that represents the lowest water supply available to the City. 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 Years:** the period that represents the lowest average water supply available to the City for a consecutive multiple 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 source for the City is exclusively groundwater the runoff tables are not deemed as suitable for selecting year types since the timing for recharge would vary. Groundwater elevation data was analyzed for State Well Number 05N06E26K001M located in the Cosumnes Subbasin in Galt. The ground surface elevation is 50 feet and the reference point (RP) elevation is 51 feet. Data was available from 1961 through 2011. The median

groundwater elevation over the 50 years (1961-2011) was -31.3 feet. Using this median, the average year would be 2010 (elevation -30.6). The 50 year minimum was -73.5 feet in 1992. It is anticipated that the minimum would most closely correspond to year 2015 as the single-dry year since the drought pattern from 2012 to 2015 is worse than what occurred from 1987 to 1992. The multiple-dry years would be 2012 through 2015.

A prolonged drought has historically had little extended effect upon the availability of supply since the only source is groundwater. From experience, periods of drought have resulted in short-term increases in the depth to groundwater due to the slower-than normal aquifer recharge. Historically, the water table has recharged and depth to groundwater returned to average levels in the years following periods of drought. Figure 7-1 illustrates the return to average levels for the City's wells during the latter part of the recent drought (2014-2016). These levels represent the depth to water surface from the casing during static conditions at each well. To date the temporary increase in depth to groundwater has not impacted the City’s ability to supply water nor has there been any significant impact upon the well water quality. The volume available and supply by water year type cannot be accurately determined since the water pumped is based on demand that includes the conservation measures implemented that year. Therefore, there is no anticipated difference in supply and demand. This may change in the 2020 UWMP based on the impact of the 2012 to 2015 drought on groundwater levels and any changes in groundwater management that could occur in the future.

As described above, the specific years identified for average, single-dry, and multiple-dry water years presented in Table 7-1 were developed based on historical groundwater level records for the Cosumnes Subbasin (Source: California Statewide Groundwater Elevation Monitoring Program). As discussed above, the available supply cannot be quantified. Therefore, the box indicating that the quantification of available supplies is not compatible with Table 7-1 has been checked but the water type years have been included.

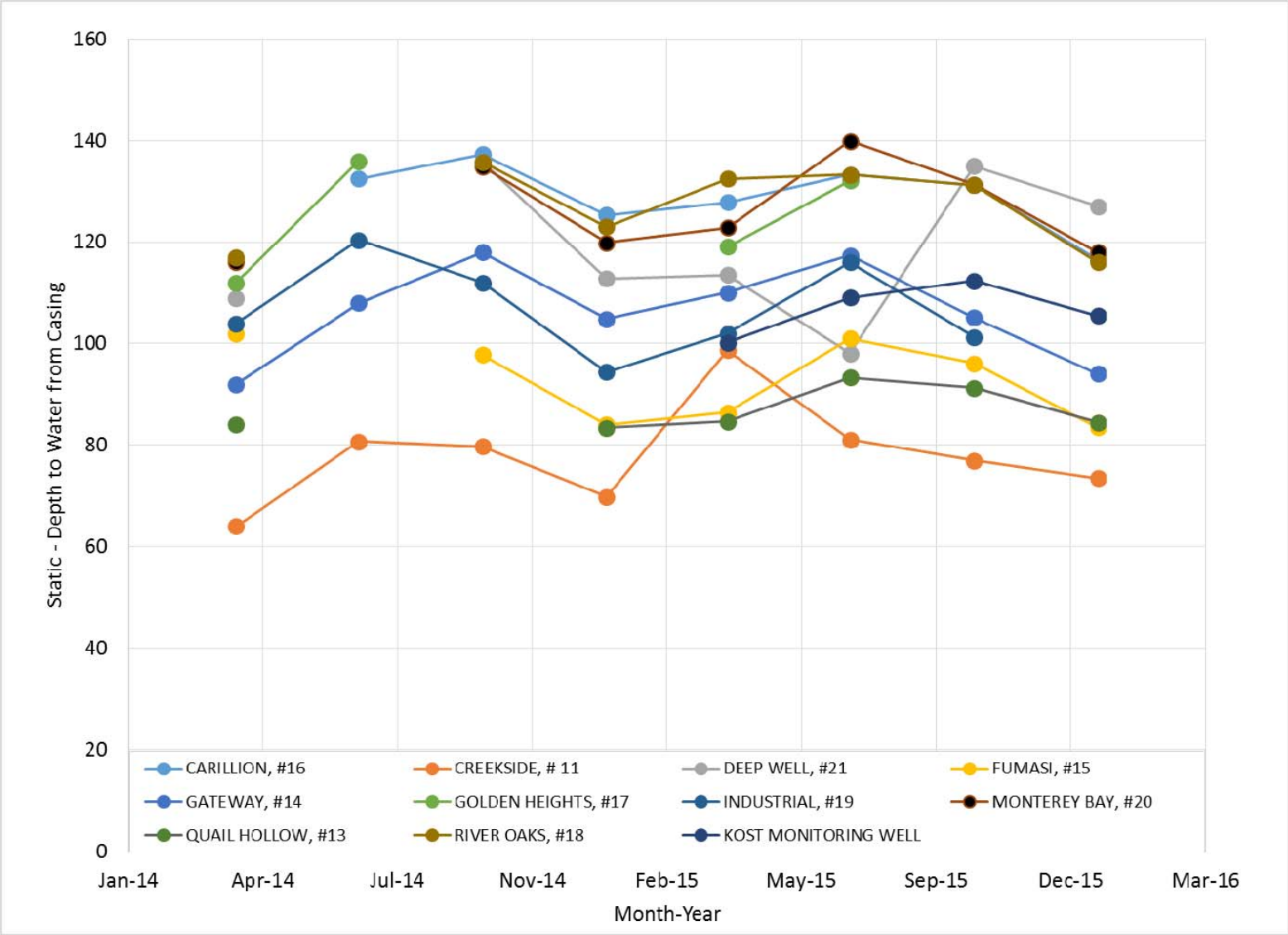

Figure 7-1 Depth to Groundwater Surface at City Wells 2014-2016

Table 7-1 Retail: Basis of Water Year Data			
Year Type	Base Year *If not using a calendar year, type in the last year of the fiscal, water year, or range of years, for example, water year 1999-2000, use 2000*	Available Supplies if Year Type Repeats	
		☑ Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location _____	
		☐ Quantification of available supplies is provided in this table as either volume only, percent only, or both.	
		Volume Available	% of Average Supply
Average Year	2010		100%
Single-Dry Year	2015		
Multiple-Dry Years 1st Year	2012		
Multiple-Dry Years 2nd Year	2013		
Multiple-Dry Years 3rd Year	2014		
Multiple-Dry Years 4th Year *Optional*	2015		
Multiple-Dry Years 5th Year *Optional*			
Multiple-Dry Years 6th Year *Optional*			
Agency may use multiple versions of Table 7-1 if different water sources have different base years and the supplier chooses to report the base years for each water source separately. If an agency uses multiple versions of Table 7-1, in the "Note" section of each table, state that multiple versions of Table 7-1 are being used and identify the particular water source that is being reported in each table.			
NOTES: Units of measure in this UWMP are acre-feet (AF). Quantification of available supplies is not compatabile with this table and is provided in Section 7.2.			

7.3 SUPPLY AND DEMAND ASSESSMENT

7.3.1 Supplies and Demands for a Normal Water Year

Table 7-2 provides an estimate of the projected normal year supply and demand totals. As shown in Table 7-2, the City is anticipated to have sufficient water production capabilities to support the growth of the community.

7.3.2 Supplies and Demands for a Single-Dry Water Year

Table 7-3 provides an estimate of the projected single-dry year supply and demand totals. Demand reductions due to water shortage stage rationing measures are not included in the single-dry year demand estimates.

Table 7-2 Retail: Normal Year Supply and Demand Comparison					
	2020	2025	2030	2035	2040 *(Opt)*
Supply totals *(autofill from Table 6-9)*	5,858	6,405	7,008	7,675	8,411
Demand totals *(autofill from Table 4-3)*	5,858	6,405	7,008	7,675	8,411
Difference	0	0	0	0	0
NOTES: Units of measure in this UWMP are acre-feet (AF).					

Table 7-3 Retail: Single Dry Year Supply and Demand Comparison					
	2020	2025	2030	2035	2040 (Opt)
Supply totals	5,858	6,405	7,008	7,675	8,411
Demand totals	5,858	6,405	7,008	7,675	8,411
Difference	0	0	0	0	0
NOTES: Units of measure in this UWMP are acre-feet (AF).					

7.3.3 Supply and Demand for Multiple-Dry Water Year Periods

Table 7-4 provides an estimate of the projected multiple-dry year supply and demand totals. Demand reductions due to water shortage stage rationing measures are not included in the multiple-dry year demand estimates. Based on recent experience, it is conceivable that water usage could be reduced by over 30 percent should conservation measures be necessary due to multi-year drought conditions.

Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison						
		2020	2025	2030	2035	2040 (Opt)
First year	Supply totals	5,858	6,405	7,008	7,675	8,411
	Demand totals	5,858	6,405	7,008	7,675	8,411
	Difference	0	0	0	0	0
Second year	Supply totals	5,858	6,405	7,008	7,675	8,411
	Demand totals	5,858	6,405	7,008	7,675	8,411
	Difference	0	0	0	0	0
Third year	Supply totals	5,858	6,405	7,008	7,675	8,411
	Demand totals	5,858	6,405	7,008	7,675	8,411
	Difference	0	0	0	0	0
Fourth year *(optional)*	Supply totals	5,858	6,405	7,008	7,675	8,411
	Demand totals	5,858	6,405	7,008	7,675	8,411
	Difference	0	0	0	0	0
Fifth year *(optional)*	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Sixth year *(optional)*	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0

NOTES: Units of measure in this UWMP are acre-feet (AF).

7.4 REGIONAL SUPPLY RELIABILITY

The City is maximizing the use of local water resources (groundwater) and reducing waste through the implementation of demand management measures (DMMs) (see Chapter 9.0). The City's efforts help to minimize the need to purchase water from other agencies and construct new wells.

WATER SHORTAGE CONTINGENCY PLAN

The Urban Water Management Planning Act (UWMPA) requires that the Urban Water Management Plan (UWMP) include an urban water shortage contingency analysis that addresses 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. In addition to actions, the City of Galt (City) is required to develop mandatory prohibitions against specific water use during shortages and consumption reduction methods in the most restrictive stages. A copy of Chapter 13.10 (Water Conservation) of the City Municipal Code is included in Appendix G. The City's Water Conservation Chapter serves as their Water Shortage Contingency Plan and may be amended as needed without amending this 2015 UWMP.

8.1 STAGES OF ACTION

The stages of action in response to water supply shortages, including up to a 50 percent reduction in water supply are summarized in Table 8-1. Detailed descriptions of each stage of action are included in the Water Conservation Chapter (Appendix G).

Table 8-1 Retail
Stages of Water Shortage Contingency Plan

Stage	Complete Both	
	Percent Supply Reduction[1] *Numerical value as a percent*	Water Supply Condition *(Narrative description)*
Add additional rows as needed		
1	0%	Normal Water Supply
2	30%	Water Alert
3	40%	Water Warning
4	50%	Water Crisis (Emergency)

[1] *One stage in the Water Shortage Contingency Plan must address a water shortage of 50%.*

For planning purposes, the City has assumed that the above stages could result in water shortages created by a loss of pumping capacity caused by either well or distribution system failure or via state mandate to reduce groundwater pumping.

Section 10620 (d)(2) of the California Water Code (CWC) 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 Manager is to establish the state of the water use policy that shall be in effect from time to time based upon recommendations from the City Engineer. Such recommendations from the City Engineer may be based upon, but will not be limited to, times of drought, prolonged power outages or perception of such, natural disasters or water generation, or transmission system failures.

Upon determination of the water use policy stage and, thereafter, any upgrade or downgrade of such stage, the City Manager is to determine the means by which the City will notify the residents. Notification may be achieved through newspaper, public notice, mailings, and utility billings or by a combination of such means as determined by the City Manager.

8.2 PROHIBITIONS ON END USES

Table 8-2 contains mandatory prohibitions and the water shortage stage when they are enacted. These prohibitions are detailed in the Water Conservation Chapter (Appendix G).

In May 2016, the Governor of California issued an Executive Order declaring the following practices be permanently prohibited:

- Hosing off sidewalks, driveways, and other hardscapes
- Washing automobiles with hoses not equipped with a shut-off nozzle
- Using non-recirculated water in a fountain or other decorative water feature
- Watering lawns in a manner that causes runoff, or within 48 hours after measurable precipitation
- Irrigating ornamental turf on public street medians

These prohibitions were put in effect on May 31, 2016, by the City.

In the event any provision of this Chapter or the Water Conservation Chapter (Appendix G) conflicts or overlaps with any mandatory State regulation related to water conservation, the most stringent shall apply.

8.2.1 Defining Water Features

The water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, are to be defined separately from swimming pools and spas in the 2015 UWMPs and supporting documents. The Water Conservation Chapter (Appendix G) specifically identifies and defines the water features to which prohibitions are applicable to, thus meeting the requirement.

8.3 PENALTIES, CHARGES, OTHER ENFORCEMENT OF PROHIBITIONS

The penalties stated in this section are deemed to neither limit nor repeal any other powers granted under state or federal law, or municipal ordinances. Notice for each and all violations shall be given in writing to the occupant of the site of the violation, or to any person in control of such site, or posted on the site in a conspicuous location. Each day any violation is committed or permitted to continue shall constitute a separate offense and shall be punishable as such, except as otherwise indicated.

Penalties for excessive use in Stages 1 through 3 within a 12-month period are as follows:

- **First Offense:** Warning
- **Second Offense:** $25 added to water bill
- **Third Offense:** $50 added to water bill
- **Fourth Offense:** $100 added to water bill
- **Fifth Offense:** Installation of a water meter at customers expense in addition to a $100 reconnection fee
- **Additional Offenses:** $100 added to water bill, plus installation of a flow restrictors at customers expense

Penalties for excessive use in Stage 4 within a twelve-month period are as follows:

- **First Offense:** Warning
- **Second Offense:** $100 added to water bill
- **Third Offense:** $200 added to water bill
- **Fourth Offense:** Installation of a water meter at customers expense in addition to a $200 reconnection fee
- **Additional Offenses:** $200 added to water bill, plus installation of a flow restrictors at customers expense

Table 8-2 Retail Only: Restrictions and Prohibitions on End Uses			
Stage	Restrictions and Prohibitions on End Users *Drop down list* *These are the only categories that will be accepted by the WUEdata online submittal tool*	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? *Drop Down List*
Add additional rows as needed			
1-4	Landscape - Restrict or prohibit runoff from landscape irrigation		Yes
N/A	Landscape - Limit landscape irrigation to specific times		
2-4	Landscape - Limit landscape irrigation to specific days		Yes
4	Landscape - Prohibit certain types of landscape irrigation		Yes
4	Landscape - Prohibit all landscape irrigation		Yes
1-4	Landscape - Other landscape restriction or prohibition		Yes
N/A	CII - Lodging establishment must offer opt out of linen service		
2-4	CII - Restaurants may only serve water upon request		Yes
N/A	CII - Commercial kitchens required to use pre-rinse spray valves		
N/A	CII - Other CII restriction or prohibition	Galt Municipal Code Section 13.10.070	Yes
4	Water Features - Restrict water use for decorative water features, such as fountains		Yes
N/A	Pools and Spas - Require covers for pools and spas		
N/A	Pools - Allow filling of swimming pools only when an appropriate cover is in place.		
1-4	Other water feature or swimming pool restriction		Yes
1-4	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner		Yes
1-4	Other - Require automatic shut of hoses		Yes
4	Other - Prohibit use of potable water for construction and dust control		Yes
2-4	Other - Prohibit use of potable water for washing hard surfaces		Yes
4	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water		Yes
1-4	Other		Yes

The penalties or charges for excessive use during water shortages are detailed in the Water Conservation Chapter (Appendix G). Due to recent installation of water meters city-wide, the penalties for excessive use will be updated over the next couple of years.

8.4 CONSUMPTION REDUCTION METHODS

The UWMPA requires that the UWMP include an urban water shortage contingency analysis that addresses methods to reduce consumption. Table 8-3 contains consumption reduction methods by water shortage stage.

Table 8-3 Retail Only: Stages of Water Shortage Contingency Plan - Consumption Reduction Methods		
Stage	Consumption Reduction Methods by Water Supplier *Drop down list* *These are the only categories that will be accepted by the WUEdata online submittal tool*	Additional Explanation or Reference *(optional)*
Add additional rows as needed		
1-4	Expand Public Information Campaign	Increased outreach efforts.
1-4	Improve Customer Billing	System currently allows customers to view usage online.
1-4	Increase Frequency of Meter Reading	System currently identifies issues.
3-4	Decrease Line Flushing	Maintenance efforts would be temporarily reduced or suspended.
1-4	Reduce System Water Loss	Water loss is tracked monthly.
2-4	Increase Water Waste Patrols	Through efforts of water conservation officers.
1-4	Other	Update penalties for water wasting. Revisions are needed to meters recently installed city-wide.

8.5 DETERMINING WATER SHORTAGE REDUCTIONS

The UWMPA requires that the UWMP include a means to determine the actual water use reduction from implementing the stages of the Water Conservation Chapter (Appendix G). Reductions in water use for each user can be determined based on meter readings. This will be performed by the City now that it is completely metered.

8.6 REVENUE AND EXPENDITURE IMPACTS

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).

The City is fully metered and all City customers are billed volumetrically. Therefore, the City may experience a decrease in revenue with reduced water sales during a water shortage. Although the variable costs of supplying water will be reduced as water usage decreases, the fixed costs will remain constant. The variable costs are linked to the operation of the

wells (power, chemicals, and usage-based maintenance). The fixed costs are independent of well operation and include the debt for the capital improvement associated with the development of the wells and salaries for maintenance and operations personnel. The City's current rate structure generally provides for 60 percent of all revenue via fixed charges and the remaining 40 percent via commodity charges (see Section 9.3 for additional rate structure details).

To overcome a reduction in revenue due to a water shortage the City could adjust the water rates or develop a reserve fund.

8.6.1 Drought Rate Structures and Surcharges

The City's Water Conservation Chapter (Appendix G) does not include drought rate structures or surcharges.

8.6.2 Use of Financial Reserves

It is recommended that the City develop a reserve fund sufficient to provide for the continued operation of the water system in the event of a decline in water service revenue. In fact, the City's recent changes to the rate structure allow for funds to be set aside in a reserve fund incrementally over time.

8.6.3 Other Measures

The City will consider postponement of capital improvements and operational measures to temporarily reduce power and chemical costs as a means to overcome impacts from water shortage contingency planning to revenues and expenditures.

8.7 RESOLUTION OR ORDINANCE

The CWC 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 Water Conservation Chapter (Municipal Code Chapter 13.10) is included in Appendix G.

8.8 CATASTROPHIC SUPPLY INTERVENTION

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

The City has assessed the reliability of the supply in terms of the pumping ability during a sudden catastrophic event that has the potential for limiting the City’s ability to produce and pump groundwater. Examples of potential catastrophic events that may cause a mechanically related water shortage could include flooding, major fire emergencies, regional power outage, an earthquake, water contamination, and acts of sabotage.

The following scenarios are of concern to the City regarding its ability to provide water service. The scenarios are listed in order of relative priority, beginning with the worst case:

- An earthquake that disrupts both the City's distribution system and power supply
- Loss of supply due to groundwater contamination, from a sudden spill or unidentified leak that enters the groundwater from surface seepage
- Contamination that may spread throughout the groundwater basin
- Bacterial contamination due to pipeline failure
- Civil disturbance and purposeful interruption of water service

The inherent redundancy of the City water system (multiple independent wells, treatment facilities, generators, and storage tanks) helps to alleviate some of the risk from the catastrophic events listed above.

On October 12, 2005 the City adopted a new Emergency Operations Plan (Ordinance 2006-01) that includes the actions and contingency plans for an interruption in water supply.

The City will take the following actions in the event of a catastrophic supply interruption:

- Inventory the status of essential City services, including the City water system.
- Issue advisories and/or instructions for life saving/health preservation including location of potable water.
- Provide emergency water and, if necessary, coordinate with the private sector (i.e. bottled water companies, beverage distributors, milk distributors, etc.).
- Determine mass-care needs, including food and water. Request necessary food supplies, equipment, and other supplies to operated mass-care facilities with the coordination of the Red Cross.
- Determine if the water system is functional for firefighting. Ensure an adequate supply of water for firefighting operations.

8.9 MINIMUM SUPPLY FOR NEXT THREE YEARS

The CWC requires that the City estimate the minimum water supply available during each of the next three years (2017, 2018, and 2019). Assuming the demand would be similar to the current drought conditions, the minimum supply for the next three years is estimated to be the 2015 demand. As discussed in Section 7.2, the supply cannot be accurately

estimated. The estimate for the minimum supply for the next three years is included in Table 8-4.

Table 8-4 Retail: Minimum Supply Next Three Years			
	2016	2017	2018
Available Water Supply	4,163	4,163	4,163
NOTES: Units of measure in this UWMP are acre-feet (AF).			

The City's reliance upon groundwater for its sole source of supply has effectively insulated the City from the effects of a prolonged drought, with the exception of increasing depth to groundwater due to a slower than normal aquifer recharge and the probable increase in agricultural pumping that could create a localized overdrafted condition. To respond to this potential basin overdraft, the City has joined with the agricultural pumpers to further their overall understanding of the basin, such that an allowable basin yield can be defined along with specific basin management objectives to enhance the long-term reliability of the basin.

DEMAND MANAGEMENT MEASURES

This chapter presents details of the Demand Management Measures (DMMs) contained in the Urban Water Management Planning Act (UWMPA), as well as the City of Galt's (City's) existing and planned efforts to further develop their water conservation program. The City is committed to water conservation and has implemented or plans to implement several policies and on-going programs that promote and encourage water conservation.

The UWMPA presents two distinct methods for providing information related to DMMs. One method is to be a signatory to the Memorandum of Understanding (MOU) regarding Urban Water Conservation in California. The MOU requires the preparation of an annual report, which can be used to fulfill the DMM requirements of the Urban Water Management Plan (UWMP). However, the City is not a signatory to the MOU and therefore not a member of the California Urban Water Conservation Council (CUWCC) and does not prepare annual reports for the CUWCC. The other method for a water supplier, who is not member of CUWCC and not a signatory to the MOU, is to describe their current water conservation programs and demonstrate how they comply with the DMMs specified in Water Code Section 10631. The UWMPA was amended in 2014 to streamline DMMs from 14 specific measures to 6 more general requirements and an "other" category.

9.1 WATER WASTE PREVENTION ORDINANCES

This DMM involves adoption of an ordinance prohibiting water waste.

The City's water waste prohibition is included in the first stage (Stage 1 - Normal Water Supply) of their Water Use Policy (Galt Code Chapter 13.10 Section 0.60). The Water Use Policy is the City's Water Shortage Contingency Plan. Specific prohibitions in Stage 1 include the following: gutter flooding, free flowing hoses, and non re-circulating ornamental water fountains. See Chapter 8 for detailed information on stages of action, prohibitions of end uses, and penalties.

The City adopted Galt Code Chapter 13.10 (Water Conservation), prohibiting specific water wasting activities as described above, in 1993 and then revised in July 2006 and July 2014. A copy of the Galt Code Chapter 13.10 is included in Appendix G.

9.1.1 Implementation over the Past Five Years

The effectiveness of this DMM can be determined by a decrease in violators. For the year 2015, the City recorded 1,110 warnings.

In June 2015, the City hired two water conservation officers who drive around looking for water wasting offenders and responding to water wasting complaints. The water

conservation officers leave door hangers providing notice of violation. The City does not currently identify water wasters based on meter readings.

The City does not have a water wasting hotline. City residents are encouraged to contact the Public Works Department by email (publicworks@ci.galt.ca.us) or by telephone (209 366-7295), or on the City's mobile phone application called Galt Connect.

9.1.2 Planned Implementation

The City will continue to enforce this DMM. The effectiveness of this DMM will be evaluated by monitoring the number of warnings and offenses. The City is currently working on a system to help better track offenses (ex. to know whether it is second, third, fourth, etc. offense). More detailed information about the number of warnings and violations will be provided in the 2020 UWMP update. If an area is determined to have excessive violations, the City would implement a specific public outreach program informing the public about the Water Use Policy.

9.2 METERING

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.

9.2.1 Implementation over the Past Five Years

The City Water Code Section 13.04.060 (Appendix G) addresses water meters. All City customers are metered as of 2015. The City has advanced metering infrastructure (AMI) and automatic meter reading (AMR). The best way to evaluate the effectiveness of metering is periodic review of customer water use. The number of meters installed for the past five years is reported in Table 9-1. The project budget to install meters over the past five years was approximately $4.8 million dollars.

Table 9-1 Metering Implementation Over Past Five Years

Year	Number of Meters Installed
2011	0
2012	1
2013	41
2014	127
2015	6,125

9.2.2 Planned Implementation

The City will be providing a comparison of the metered volume/cost to the flat rate cost on the bills of customers for one year. After that the City will bill all customers on metered rates. The data collected by the installed meters will be used to establish a baseline of water use for later comparison. Additionally, current water use per capita will be compared with historic data (before and after conservation pricing is established).

9.3 CONSERVATION PRICING

Implementation of this measure includes, at a minimum, eliminating "non-conserving" pricing and adopting "conserving" pricing. This measure pertains to both water service and sewer service, where the urban water supplier also provides sewer service.

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 two or three-tiered pricing system.

9.3.1 Implementation over the Past Five Years

Over the past five years residential customers have been billed on flat rate. As the City installed water meters, the City transitioned customers from flat rate pricing to conservation rate pricing. Metered water rates were adopted by the City Council in March 2016 as Resolution No. 2016-16 (Appendix H). These 2016 metered water rates for residential, non-residential, and irrigation users consist of a monthly rate based on meter size as well as a rate per 100 cubic feet based on usage. The residential and non-residential (commercial, industrial, and institutional [CII] customers) are billed using the same consumption rate.

9.3.2 Planned Implementation

Beginning March 2017 and annually through 2020, the approved water rates will be subject to an annual inflationary adjustment, based upon the percentage change in the Consumer Price Index (CPI).

In 2016, the City will be completing a wastewater cost of service study. Conversion from a flat rate to a commodity rate based on water consumption will be analyzed as an option in this study.

9.4 PUBLIC EDUCATION AND OUTREACH

The City has implemented public education and outreach for water demand management through coordination with other agencies and provision of programs promoting water conservation, speakers for the media or community groups, public service announcements, water conservation bill inserts, website (www.ci.galt.ca.us/), quarterly residential newsletters ("Galt Connections") and comparisons on customer's bills.

9.4.1 Implementation over the Past Five Years

Table 9-2 reports the number of documents distributed and public events held to promote water conservation over the past five years.

Table 9-2 Public Education Implementation Over Past Five Years		
Year	Number of Documents Distributed (1)	Number of Public Events (2)
2011	0	0
2012	1	1
2013	1	1
2014	2	1
2015	4	1

Notes:
1) Quarterly newsletters ("Galt Connections") with water conservation information.
2) Presentations at City Council meetings.

9.4.2 Planned Implementation

Public information can be one of the best tools to conserve water. The 2016 budget for public education and outreach is approximately $21,400. The Water Conservation Coordinator could optimize the program by coordinating additional opportunities for community speakers and special events. Additionally, the Building Department could provide additional information/coordination during building permit phase for new and older homes.

Similar to a public information program, a school education program, including provision of education materials, instructional assistance, and classroom presentations, can also be one of the best tools to conserve water. The Water Conservation Coordinator could begin a school education program by meeting with school principals and educators to promote classroom presentations and field trips. Educational water conservation projects could be undertaken by the Eagle Scouts, City Youth Committee, and other groups to educate children about conservation.

9.5 PROGRAMS TO ASSESS AND MANAGE DISTRIBUTION SYSTEM REAL LOSS

This DMM focuses on the water distribution system itself, and includes water audits, leak detection, and repair. The first step in a water audit is relatively straightforward, involving

comparison of the amount of water produced with the amount of water delivered to customers. The difference is termed “unaccounted water,” which includes actual losses (leaks) in the distribution system, authorized but unmetered use (e.g., hydrant flushing and firefighting), unauthorized water use, and meter error.

9.5.1 Implementation over the Past Five Years

The City generates residential leak detection reports monthly and mails leak notification letters to residents whose water use is indicative of a leak. Residents can contact the City to ask questions or check their water use consumption.

When a complaint is lodged regarding a potential water leak, the City takes swift action to identify and repair the given leak as warranted. To minimize system losses, when a leak is reported, the City performs acoustical monitoring to rapidly locate and repair the leak.

The City's Water Distribution System Master Plan (May 2010) proposed that approximately 2.5 miles of existing pipeline be replaced to correct existing deficiencies. The City has a water main replacement program to replace older pipes throughout the City. It is assumed that the City will replace approximately 50,000 feet of older water mains through 2030, which accounts for roughly 10 percent of the existing system. On an annual basis, this equates to approximately one-half mile of water main replacements per year. The number of repaired leaks and length of pipeline replacement over the past five years in reported in Table 9-3. As shown in Table 9-3, the City has not initiated the water main replacement program.

Table 9-3 Loss Management Implementation Over Past Five Years

Year	Number of Repaired Leaks	Pipeline Replacement (feet)
2011	32	0
2012	24	0
2013	51	0
2014	59	0
2015	126	0

9.5.2 Planned Implementation

The best way to evaluate the effectiveness of this program is to compare water production data at the wells with water consumption from the City’s customers. The City has metered all services and installed flow meters on each of the water supply wells so that the production rate of each well can be monitored regularly. The City plans to compare production and consumption records to audit the performance of the water system. This will allow the City to identify and correct system inefficiencies, thus reducing system losses. The results of this performance audit will be presented in the 2020 UWMP update.

9.6 WATER CONSERVATION PROGRAM COORDINATION AND STAFFING SUPPORT

This DMM entails designating a water conservation coordinator responsible for managing water conservation efforts and evaluating the results. The Water Conservation Coordinator tasks may include, but are not limited to monthly tracking of production versus consumption, enforcement of water use restrictions, and implementation of conservation programs.

9.6.1 Implementation over the Past Five Years

As of June 2015, the City's Water Conservation Coordinator is Tony Elce (Supervising Engineering Technician, aelce@ci.galt.ca.us, (209) 366-7260). Additionally, there are two part-time water conservation officers. The 2015 program budget was $14,800.

9.6.2 Planned Implementation

The effectiveness of this DMM is determined by the work performed by the Water Conservation Coordinator. The City may set up performance standards and goals, and compare them with the results. The City could educate community volunteers to aid the City in water conservation efforts.

9.7 OTHER DEMAND MANAGEMENT MEASURES

The City does not plan to implement rebate programs or other DMMs in the future.

9.8 PLANNED IMPLEMENTATION TO ACHIEVE WATER USE TARGETS

The City has met their 2015 interim target of 196 gallons per capita per day (gpcd). The 2020 conservation target calculated for the City does not represent a significant effort to reach. Therefore, meeting the 2020 target (174 gpcd) should not be difficult for the City.

PLAN ADOPTION, SUBMITTAL, AND IMPLEMENTATION

The City of Galt (City) prepared this Draft 2015 Urban Water Management Plan (UWMP) during the spring of 2016. A completed UWMP checklist will be included in Appendix I of the Final UWMP.

10.1 INCLUSION OF ALL 2015 DATA

The 2015 UWMPs must include the water use and planning data for the entire year of 2015. The City is reporting on a calendar year basis and therefore, 2015 data includes the months of January to December 2015.

10.2 NOTICE OF PUBLIC HEARING

A public hearing will be held on July 19, 2016, prior to adoption of the UWMP at City Hall Council Chambers, 380 Civic Drive. Notices were provided to nearby irrigation and water districts, Sacramento County, and the public. The public hearing will provide an opportunity for the public to provide input on the plan before it is adopted. Additionally, the public hearing provides 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.

10.2.1 Notice to Cities and Counties

The City does not provide water supplies to other cities or counties. Sacramento County, as shown in Table 10-1, was provided 60 day notification (prior to the public hearing) that the City is in process of preparing the 2015 UWMP. The 60 Day Notification letter to Sacramento County is included in Appendix A. Sacramento County was provided a notice of public hearing, including the time and location. The notice of public hearing to Sacramento County is included in Appendix A.

Table 10-1 Retail: Notification to Cities and Counties		
City Name	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
	☐	☐
	☐	☐
	☐	☐
County Name *Drop Down List*	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
Sacramento County	☑	☑
	☐	☐

10.2.2 Notice to the Public

The Urban Water Management Planning Act (UWMPA) requires that the UWMP show the water agency solicited public participation. The notice to the public is to be included in a local newspaper as prescribed in Government Code 6066. This notice will include the time and location of the public hearing, in addition to the location of where the UWMP is available for public inspection. The notice of public hearing to the public is included in Appendix A.

On July 6, 2016 and July 13, 2016, the City will place a notice in The Galt Herald (City newspaper). The City has posted this notice at City Hall stating that its UWMP is being updated and that a public hearing will be conducted to address comments and concerns from members of the community. The notice stated that a public review period would be scheduled through July 19, 2016. A copy of this notification is included in Appendix A. The Draft 2015 UWMP is available for public inspection at the City Clerk's Office, 380 Civic Drive, the Public Works Office, 495 Industrial Drive, and the Marian O. Lawrence Library, 1000 Caroline Avenue, during regular business hours. A copy of the Draft 2015 UWMP is also posted on the City's Website (www.ci.galt.ca.us/) to facilitate the public review of the document.

10.2.3 Notice to Agencies and Organizations

The following agencies and organizations were provided notice that the City is in the process of preparing the 2015 UWMP:

- Galt Irrigation District
- Clay Water District
- Omochumne-Hartnell Water District

These agencies and organizations were provided 60 day notification (prior to the public hearing) and a notice of public hearing, including the time and location. The 60 Day Notification letters and the notice of public hearing are included in Appendix A.

10.3 PUBLIC HEARING AND ADOPTION

The plan adoption by City Council is anticipated to occur at a public hearing on July 19, 2016, The City Resolution will be included in Appendix J of the Final UWMP. 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. At the hearing, the UWMP, water use targets, and conservation implementation plan will be discussed.

10.3.1 Adoption

After the public hearing, the 2015 UWMP shall be adopted as prepared or as modified after the hearing.

10.4 PLAN SUBMITTAL

The public hearing will be followed by submittal of the UWMP to the California Department of Water Resources (DWR), the California State Library, and Sacramento County (see Commitment to Distribute in Appendix A).

10.4.1 Submission to DWR

The 2015 UWMP will be submitted to DWR within 30 days of adoption.

10.4.2 Electronic Data Submission

The 2015 UWMP, in addition to tabular data, will be submitted using WUEdata submittal tool.

10.4.3 Submission to the California State Library

The 2015 UWMP will be submitted in CD or hardcopy format to the California State Library within 30 days of adoption.

10.4.4 Submission to Cities and Counties

The 2015 UWMP, which includes the City's Water Shortage Contingency Plan, will be submitted in electronic format to Sacramento County within 30 days of adoption.

10.5 PUBLIC AVAILABILITY

Within 30 days of submitting the UWMP to DWR, the adopted UWMP will be available for public review during normal business hours at the locations specified herein.

10.6 AMENDING AN ADOPTED UWMP

The plan may be updated at any time when the urban water supplier believes significant changes have occurred in population, land use, and/or water sources that may affect the contents of the plan. Copies of amendments or changes to the plan shall be submitted electronically to DWR, the California State Library, and any cities or counties which the City provides water supplies within 30 days of adoption.

Appendix A

OUTREACH DOCUMENTS

Public Works Department

April 4, 2016

Galt Irrigation District
PO Box 187
Herald, CA 95638-0187

Attention: Leo VanWarmerdam

Subject: **Notice of Preparation of the 2015 City of Galt Urban Water Management Plan**

Dear Mr. VanWarmerdam:

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 Galt (City) is in process of preparing the 2015 Urban Water Management Plan (UWMP). Based on the City's current schedule, we expect to have a public review draft of the 2015 UWMP available for review in June 2016, 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 2015 UWMP, please submit written copies to:

Alice Bernardino
City of Galt Public Works Dept.
495 Industrial Drive
Galt, CA 95632

Sincerely,

CITY OF GALT

Alice Bernardino
City of Galt

cc: Nicola Fontaine, Carollo Engineers, Inc.
John Griffin, City of Galt

City of GALT

Public Works Department

April 4, 2016

Clay Water District
2379 Lloyd Lane
Sacramento, CA 95825-8633

Attention: Gary Silva Jr

Subject: **Notice of Preparation of the 2015 City of Galt Urban Water Management Plan**

Dear Mr. Silva:

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 Galt (City) is in process of preparing the 2015 Urban Water Management Plan (UWMP). Based on the City's current schedule, we expect to have a public review draft of the 2015 UWMP available for review in June 2016, 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 2015 UWMP, please submit written copies to:

Alice Bernardino
City of Galt Public Works Dept.
495 Industrial Drive
Galt, CA 95632

Sincerely,

CITY OF GALT

Alice Bernardino
City of Galt
cc: Nicola Fontaine, Carollo Engineers, Inc.
John Griffin, City of Galt

City of GALT

Public Works Department

April 4, 2016

County of Sacramento
700 H St., Room 7650
Sacramento, CA 95814

Attention: Interim County Executive Office Nav Gill

Subject: **Notice of Preparation of the 2015 City of Galt Urban Water Management Plan**

Dear Nav Gill:

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 Galt (City) is in process of preparing the 2015 Urban Water Management Plan (UWMP). Based on the City's current schedule, we expect to have a public review draft of the 2015 UWMP available for review in June 2016, 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 2015 UWMP, please submit written copies to:

Alice Bernardino
City of Galt Public Works Dept.
495 Industrial Drive
Galt, CA 95632

Sincerely,

CITY OF GALT

Alice Bernardino
City of Galt
cc: Nicola Fontaine, Carollo Engineers, Inc.
John Griffin, City of Galt

City of GALT

Public Works Department

April 4, 2016

Omochumne-Hartnell Water District
PO Box 211
Wilton, CA 95693

Attention: Ronald Lowry

Subject: **Notice of Preparation of the 2015 City of Galt Urban Water Management Plan**

Dear Mr. Lowry:

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 Galt (City) is in process of preparing the 2015 Urban Water Management Plan (UWMP). Based on the City's current schedule, we expect to have a public review draft of the 2015 UWMP available for review in June 2016, 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 2015 UWMP, please submit written copies to:

Alice Bernardino
City of Galt Public Works Dept.
495 Industrial Drive
Galt, CA 95632

Sincerely,

CITY OF GALT

Alice Bernardino
City of Galt

cc: Nicola Fontaine, Carollo Engineers, Inc.
John Griffin, City of Galt

City of GALT

Public Works Department

June 13, 2016

County of Sacramento
700 H St., Room 7650
Sacramento, CA 95814

Attention: County Executive Officer Nav Gill

Subject: **REVISED Public Hearing Notice**

Dear Nav Gill:

Notice is hereby given that the Galt City Council will hold a Public Hearing in the Council Chamber of the City Hall, 380 Civic Drive, Galt, California, on the date and time indicated below, or as soon thereafter that the matter can be heard, to receive and consider all evidence and reports relative to the matters described below.

On behalf of the City of Galt, please notify the Sacramento County Water Agency of this revised notification.

MATTERS TO BE CONSIDERED

Adoption of the Update to the City's Urban Water Management Plan

CITY COUNCIL HEARING

REVISED PUBLIC HEARING DATE AND TIME: July 19th, 2016, at 7:00 p.m.

Further, such data and information regarding the matters to be considered at the Public Hearing described in this notice are available for review and inspection and are on file in the City Clerk's Office, 380 Civic Drive, Galt, California, the Public Works Office, 495 Industrial Drive, Galt, California, and the Marian O. Lawrence Library, 1000 Caroline Avenue, Galt, California, during regular business hours. The document is also available for viewing on the City's website.

If you challenge the approval of the above noted matters in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the City of Galt at, or prior to, the public hearing.

For questions concerning the document, please contact:
Alice Bernardino
City of Galt Public Works Dept.
Phone: (209) 366-7260

Written comments are requested by the close of business on July 19th, 2016.
Send written comments to:
Urban Water Management Plan
c/o Alice Bernardino
City of Galt Public Works Dept.
495 Industrial Drive
Galt, CA 95632

Sincerely,

CITY OF GALT

Alice Bernardino
City of Galt

cc: Nicola Fontaine, Carollo Engineers, Inc.
John Griffin, City of Galt

City of GALT

Public Works Department

June 13, 2016

Clay Water District
2379 Lloyd Lane
Sacramento, CA 95825-8633

Attention: Gary Silva Jr

Subject: **REVSED Public Hearing Notice**

Dear Mr. Silva:

Notice is hereby given that the Galt City Council will hold a Public Hearing in the Council Chamber of the City Hall, 380 Civic Drive, Galt, California, on the date and time indicated below, or as soon thereafter that the matter can be heard, to receive and consider all evidence and reports relative to the matters described below.

MATTERS TO BE CONSIDERED

Adoption of the Update to the City's Urban Water Management Plan

CITY COUNCIL HEARING

REVISED PUBLIC HEARING DATE AND TIME: July 19th, 2016, at 7:00 p.m.

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If you challenge the approval of the above noted matters in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the City of Galt at, or prior to, the public hearing.

For questions concerning the document, please contact:
Alice Bernardino
City of Galt Public Works Dept.
Phone: (209) 366-7260

Written comments are requested by the close of business on July 19th, 2016.
Send written comments to:
Urban Water Management Plan

c/o Alice Bernardino
City of Galt Public Works Dept.
495 Industrial Drive
Galt, CA 95632

Sincerely,

CITY OF GALT

Alice Bernardino
City of Galt

cc: Nicola Fontaine, Carollo Engineers, Inc.
John Griffin, City of Galt

City of GALT

Public Works Department

June 13, 2016

Galt Irrigation District
PO Box 187
Herald, CA 95638-0187

Attention: Leo VanWarmerdam

Subject: **REVISED Public Hearing Notice**

Dear Mr. VanWarmerdam:

Notice is hereby given that the Galt City Council will hold a Public Hearing in the Council Chamber of the City Hall, 380 Civic Drive, Galt, California, on the date and time indicated below, or as soon thereafter that the matter can be heard, to receive and consider all evidence and reports relative to the matters described below.

MATTERS TO BE CONSIDERED

Adoption of the Update to the City's Urban Water Management Plan

CITY COUNCIL HEARING

REVISED PUBLIC HEARING DATE AND TIME: July 19th, 2016, at 7:00 p.m.

Further, such data and information regarding the matters to be considered at the Public Hearing described in this notice are available for review and inspection and are on file in the City Clerk's Office, 380 Civic Drive, Galt, California, the Public Works Office, 495 Industrial Drive, Galt, California, and the Marian O. Lawrence Library, 1000 Caroline Avenue, Galt, California, during regular business hours. The document is also available for viewing on the City's website.

If you challenge the approval of the above noted matters in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the City of Galt at, or prior to, the public hearing.

For questions concerning the document, please contact:
Alice Bernardino
City of Galt Public Works Dept.
Phone: (209) 366-7260

Written comments are requested by the close of business on July 19th, 2016.
Send written comments to:

Urban Water Management Plan
c/o Alice Bernardino
City of Galt Public Works Dept.
495 Industrial Drive
Galt, CA 95632

Sincerely,

CITY OF GALT

Alice Bernardino
City of Galt

cc: Nicola Fontaine, Carollo Engineers, Inc.
John Griffin, City of Galt

Public Works Department

June 13, 2016

Omuchumne-Hartnell Water District
PO Box 211
Wilton, CA 95693

Attention: Ronald Lowry

Subject: **REVISED Public Hearing Notice**

Dear Mr. Lowry:

Notice is hereby given that the Galt City Council will hold a Public Hearing in the Council Chamber of the City Hall, 380 Civic Drive, Galt, California, on the date and time indicated below, or as soon thereafter that the matter can be heard, to receive and consider all evidence and reports relative to the matters described below.

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c/o Alice Bernardino
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Galt, CA 95632

Sincerely,

CITY OF GALT

Alice Bernardino
City of Galt

cc: Nicola Fontaine, Carollo Engineers, Inc.
John Griffin, City of Galt

Commitment to Distribute the 2015 Urban Water Management Plan (UWMP)

The documentation currently included in these appendices satisfies California Water Code (CWC) parts 10621(b) and 10642.

Two other sections of the CWC specify UWMP documentation that must take place after the submission of the supplier's UWMP to the California Department of Water Resources (DWR). These parts are as follows:

- Part 10644(a), requiring documentation that within 30 days of submitting the UWMP to DWR, the adopted UWMP has been or will be submitted to the California State Library and any city or county to which the supplier provides water.
- Part 10645, requiring documentation that the supplier will make the UWMP available for public review no later than 30 days after submission to DWR.

In order to satisfy these requirements, the City will perform the following actions:

- The City will submit its 2015 UWMP to DWR.
- The City will send a printed or electronic copy of its 2015 UWMP to the California State Library and to the cities and counties within which it provides water. The City will do this within 30 days from filing with DWR.
- The City will make their 2015 UWMP available for public review within 30 days from filing with DWR.

Appendix B

CLIMATE CHANGE VULNERABILITY ASSESSMENT

The Climate Change Vulnerability Assessment is taken from the Climate Change Handbook for Regional Water Planning, USEPA and DWR, 2011. The vulnerability assessment highlights those water-related resources that are important to a region and are sensitive to climate change.

I. Water Demand

☒ *Are there major industries that require cooling/process water in your planning region?*

- As average temperatures increase, cooling water needs may also increase.
- Identify major industrial water users in your region and assess their current and projected needs for cooling and process water.

☒ *Does water use vary by more than 50% seasonally in parts of your region?*

- Seasonal water use, which is primarily outdoor water use, is expected to increase as average temperatures increase and droughts become more frequent.
- Where water use records are available, look at total monthly water uses averaged over the last five years (if available). If maximum and minimum monthly water uses vary by more than 25%, then the answer to this question is "yes"
- Where no water use records exist, is crop irrigation responsible for a significant (say >50%) percentage of water demand in parts of your region?

☐ *Are crops grown in your region climate-sensitive? Would shifts in daily heat patterns, such as how long heat lingers before night-time cooling, be prohibitive for some crops?*

- Fruit and nut crops are climate-sensitive and may require additional water as the climate warms.

☐ *Do groundwater supplies in your region lack resiliency after drought events?*

- Droughts are expected to become more frequent and more severe in the future. Areas with a more hardened demand may be particularly vulnerable to droughts and may become more dependent on groundwater pumping.

☒ *Are water use curtailment measures effective in your region?*

- Droughts are expected to become more frequent and more severe in the future. Areas with a more hardened demand may be particularly vulnerable to droughts.

☐ *Are some instream flow requirements in your region either currently insufficient to support aquatic life, or occasionally unmet?*

- Changes in snowmelt patterns in the future may make it difficult to balance water demands. Vulnerabilities for ecosystems and municipal/agricultural water needs may be exacerbated by instream flow requirements that are:
    1. not quantified,
    2. not accurate for ecosystem needs under multiple environmental conditions including droughts, and
    3. not met by regional water managers.

II. Water Supply

☐ *Does a portion of the water supply in your region come from snowmelt?*

- Snowmelt is expected to decrease as the climate warms. Water systems supplied by snowmelt are therefore potentially vulnerable to climate change.
- Where watershed planning documents are available, refer to these in identifying parts of your region that rely on surface water for supplies; if your region contains surface water supplies originating in watersheds where snowpack accumulates, the answer to this question is "Yes."
- Where planning documents are not available, identify major rivers in your region with large users. Identify whether the river's headwaters are fed by snowpack.

☐ *Does part of your region rely on water diverted from the Delta, imported from the Colorado River, or imported from other climate-sensitive systems outside your region?*

- Some imported or transferred water supplies are sources from climate-sensitive watersheds, such as water imported from the Delta and the Colorado River.

☐ *Does part of your region rely on coastal aquifers? Has salt intrusion been a problem in the past?*

- Coastal aquifers are susceptible to salt intrusion as sea levels rise, and many have already observed salt intrusion due to over-extraction, such as the West Coast Basin in southern California.

☐ *Would your region have difficulty in storing carryover supply surpluses from year to year?*

- Droughts are expected to become more severe in the future. Systems that can store more water may be more resilient to droughts.

☐ *Has your region faced a drought in the past during which it failed to meet local water demands?*

- Droughts are expected to become more severe in the future. Systems that have already come close to their supply thresholds may be especially vulnerable to droughts in the future.

☐ *Does your region have invasive species management issues at your facilities, along conveyance structures, or in habitat areas?*

- As invasive species are expected to become more prevalent with climate change, existing invasive species issues may indicate an ecological vulnerability to climate change.

III. Water Quality

☐ *Are increased wildfires a threat in your region? If so, does your region include reservoirs with fire-susceptible vegetation nearby which could pose a water quality concern from increased erosion?*

- Some areas are expected to become more vulnerable to wildfires over time. To identify whether this is the case for parts of your region, the California Public Interest Energy Research (PIER)Program has posted wildfire susceptibility projections as a Google Earth application at: *http://cal-adapt.org/fire/*. These projections are only the results of a single study and are not intended for analysis, but can aid in qualitatively answering this question. Read the application's disclaimers carefully to be aware of its limitations.

☐ *Does part of your region rely on surface water bodies with current or recurrent water quality issues related to eutrophication, such as low dissolved oxygen or algal blooms? Are there other water quality constituents potentially exacerbated by climate change?*

- Warming temperatures will result in lower dissolved oxygen levels in water bodies, which are exacerbated by algal blooms and in turn enhance eutrophication. Changes in streamflows may alter pollutant concentrations in water bodies.

☐ *Are seasonal low flows decreasing for some waterbodies in your region? If so, are the reduced low flows limiting the waterbodies' assimilative capacity?*

- In the future, low flow conditions are expected to be more extreme and last longer. This may result in higher pollutant concentrations where loadings increase or remain constant.

☐ *Are there beneficial uses designated for some water bodies in your region that cannot always be met due to water quality issues?*

- In the future, low flows are expected decrease, and to last longer. This may result in higher pollutant concentrations where loadings increase or remain constant.

☐ *Does part of your region currently observe water quality shifts during rain events that impact treatment facility operation?*

- While it is unclear how average precipitation will change with temperature, it is generally agreed that storm severity will probably increase. More intense, severe storms may lead to increased erosion, which will increase turbidity in surface waters. Areas that already observe water quality responses to rainstorm intensity may be especially vulnerable.

IV. Sea Level Rise

☐ *Has coastal erosion already been observed in your region?*

- Coastal erosion is expected to occur over the next century as sea levels rise.

☐ *Are there coastal structures, such as levees or breakwaters, in your region?*

- Coastal structures designed for a specific mean sea level may be impacted by sea level rise.

☐ *Is there significant coastal infrastructure, such as residences, recreation, water and wastewater treatment, tourism, and transportation) at less than six feet above mean sea level in your region?*

- Coastal flooding will become more common, and will impact a greater extent of property, as sea levels rise. Critical infrastructure in the coastal floodplain may be at risk.
- Digital elevation maps should be compared with locations of coastal infrastructure.

☐ *Are there climate-sensitive low-lying coastal habitats in your region?*

- Low-lying coastal habitats that are particularly vulnerable to climate change include estuaries and coastal wetlands that rely on a delicate balance of freshwater and salt water.

☐ *Are there areas in your region that currently flood during extreme high tides or storm surges?*

- Areas that are already experiencing flooding during storm surges and very high tides, are more likely to experience increased flooding as sea levels rise.

☐ *Is there land subsidence in the coastal areas of your region?*

- Land subsidence may compound the impacts of sea level rise.

☐ *Do tidal gauges along the coastal parts of your region show an increase over the past several decades?*

- Local sea level rise may be higher or lower than state, national, or continental projections.
- Planners can find information on local tidal gauges at *http://tidesandcurrents.noaa.gov/sltrends/sltrends_states.shtml?region=ca*

V. Flooding

☐ *Does critical infrastructure in your region lie within the 200-year floodplain? DWR's best available floodplain maps are available at: http://www.water.ca.gov/floodmgmt/lrafmo/fmb/fes/best_available_maps/*

- While it is unclear how average precipitation will change with temperature, it is generally agreed that storm severity will probably increase. More intense, severe storms may lead to higher peak flows and more severe floods.
- Refer to FEMA floodplain maps and any recent FEMA, US Army Corps of Engineers, or DWR studies that might help identify specific local vulnerabilities for your region. Other follow-up questions that might help answer this question:

    1. What public safety issues could be affected by increased flooding events or intensity? For example, evacuation routes, emergency personnel access, hospitals, water treatment and wastewater treatment plants, power generation plants and fire stations should be considered.
    2. Could key regional or economic functions be impacted from more frequent and/or intense flooding?

☐ *Does part of your region lie within the Sacramento-San Joaquin Drainage District?*

- The SSJDD contains lands that are susceptible to overflows from the Sacramento and San Joaquin Rivers, and are a key focus of the Central Valley Flood Protection Plan. (*http://www.water.ca.gov/cvfmp/program.cfm*).

☐ *Does aging critical flood protection infrastructure exist in your region?*

- Levees and other flood protection facilities across the state of California are aging and in need of repair. Due to their overall lowered resiliency, these facilities may be particularly vulnerable to climate change impacts.
- DWR is evaluating more than 300 miles of levees in the San Joaquin and Sacramento Rivers Valleys and the Delta (*http://www.water.ca.gov/levees/*).

☐ *Have flood control facilities (such as impoundment structures) been insufficient in the past?*

- Reservoirs and other facilities with impoundment capacity may be insufficient for severe storms in the future. Facilities that have been insufficient in the past may be particularly vulnerable.

☐ *Are wildfires a concern in parts of your region?*

- Wildfires alter the landscape and soil conditions, increasing the risk of flooding within the burn and downstream areas. Some areas are expected to become more vulnerable to wildfires over time. To identify whether this is the case for parts of your region, the California Public Interest Energy Research Program (PIER) has posted wildfire susceptibility projections as a Google Earth application at: *http://cal-adapt.org/fire/*. These projections are the results of only a single study and are not intended for analysis, but can aid in qualitatively answering this question. Read the application's disclaimers carefully to be aware of its limitations.

VI. Ecosystem and Habitat Vulnerability

☐ *Does your region include inland or coastal aquatic habitats vulnerable to erosion and sedimentation issues?*

- Erosion is expected to increase with climate change, and sedimentation is expected to shift. Habitats sensitive to these events may be particularly vulnerable to climate change.

☐ *Does your region include estuarine habitats which rely on seasonal freshwater flow patterns?*

- Seasonal high and low flows, especially those originating from snowmelt, are already shifting in many locations.

☐ *Do climate-sensitive fauna or flora populations live in your region?*

- Some specific species are more sensitive to climate variations than others.

☒ *Do endangered or threatened species exist in your region? Are changes in species distribution already being observed in parts of your region?*

- Species that are already threatened or endangered may have a lowered capacity to adapt to climate change.

☐ *Does the region rely on aquatic or water-dependent habitats for recreation or other economic activities?*

- Economic values associated with natural habitat can influence prioritization.

☐ *Are there rivers in your region with quantified environmental flow requirements or known water quality/quantity stressors to aquatic life?*

- Constrained water quality and quantity requirements may be difficult to meet in the future.

☐ *Do estuaries, coastal dunes, wetlands, marshes, or exposed beaches exist in your region? If so, are coastal storms possible/frequent in your region?*

- Storm surges are expected to result in greater damage in the future due to sea level rise. This makes fragile coastal ecosystems vulnerable.

☒ *Does your region include one or more of the habitats described in the Endangered Species Coalition's Top 10 habitats vulnerable to climate change http://www.endangered.org/its-getting-hot-out-there/ ?*

- These ecosystems are particularly vulnerable to climate change.

☐ *Are there areas of fragmented estuarine, aquatic, or wetland wildlife habitat within your region? Are there movement corridors for species to naturally migrate? Are there infrastructure projects planned that might preclude species movement?*

- These ecosystems are particularly vulnerable to climate change.

VII. Hydropower

☐ *Is hydropower a source of electricity in your region?*

- As seasonal river flows shift, hydropower is expected to become less reliable in the future.

☐ *Are energy needs in your region expected to increase in the future? If so, are there future plans for hydropower generation facilities or conditions for hydropower generation in your region?*

- Energy needs are expected to increase in many locations as the climate warms. This increase in electricity demand may compound decreases in hydropower production, increasing its priority for a region.

Appendix C

SB X7-7 VERIFICATION FORM

SB X7-7 Table 0: Units of Measure Used in UWMP* *(select one from the drop down list)*
Acre Feet
**The unit of measure must be consistent with Table 2-3*
NOTES:

SB X7-7 Table-1: Baseline Period Ranges			
Baseline	**Parameter**	**Value**	**Units**
10- to 15-year baseline period	2008 total water deliveries	5,953	Acre Feet
	2008 total volume of delivered recycled water	-	Acre Feet
	2008 recycled water as a percent of total deliveries	0.00%	Percent
	Number of years in baseline period[1, 2]	10	Years
	Year beginning baseline period range	2000	
	Year ending baseline period range[3]	2009	
5-year baseline period	Number of years in baseline period	5	Years
	Year beginning baseline period range	2005	
	Year ending baseline period range[4]	2009	

[1] If the 2008 recycled water percent is less than 10 percent, then the first baseline period is a continuous 10-year period. If the amount of recycled water delivered in 2008 is 10 percent or greater, the first baseline period is a continuous 10- to 15-year period. [2] The Water Code requires that the baseline period is between 10 and 15 years. However, DWR recognizes that some water suppliers may not have the minimum 10 years of baseline data.

[3] The ending year must be between December 31, 2004 and December 31, 2010.

[4] The ending year must be between December 31, 2007 and December 31, 2010.

NOTES:

SB X7-7 Table 2: Method for Population Estimates	
Method Used to Determine Population (may check more than one)	
☐	**1. Department of Finance** (DOF) DOF Table E-8 (1990 - 2000) and (2000-2010) and DOF Table E-5 (2011 - 2015) when available
☑	**2. Persons-per-Connection Method**
☐	**3. DWR Population Tool**
☐	**4. Other** DWR recommends pre-review
NOTES:	

SB X7-7 Table 3: Service Area Population		
Year		Population
10 to 15 Year Baseline Population		
Year 1	2000	19,483
Year 2	2001	19,166
Year 3	2002	20,005
Year 4	2003	20,256
Year 5	2004	21,187
Year 6	2005	21,894
Year 7	2006	24,408
Year 8	2007	26,746
Year 9	2008	24,473
Year 10	2009	22,662
Year 11		
Year 12		
Year 13		
Year 14		
Year 15		
5 Year Baseline Population		
Year 1	2005	21,894
Year 2	2006	24,408
Year 3	2007	26,746
Year 4	2008	24,473
Year 5	2009	22,662
2015 Compliance Year Population		
2015		24,419
NOTES:The City believes that the number of connections in 2007 as reported on the annual report may be a typo which results in a spike in population in 2007.		

SB X7-7 Table 4: Annual Gross Water Use *								
Baseline Year *Fm SB X7-7 Table 3*		**Volume Into Distribution System** *This column will remain blank until SB X7-7 Table 4-A is completed.*	**Deductions**					**Annual Gross Water Use**
			Exported Water	**Change in Dist. System Storage** (+/-)	**Indirect Recycled Water** *This column will remain blank until SB X7-7 Table 4-B is completed.*	**Water Delivered for Agricultural Use**	**Process Water** *This column will remain blank until SB X7-7 Table 4-D is completed.*	
10 to 15 Year Baseline - Gross Water Use								
Year 1	2000	4,592	-	-	-	-	-	4,592
Year 2	2001	4,955	-	-	-	-	-	4,955
Year 3	2002	4,948	-	-	-	-	-	4,948
Year 4	2003	4,992	-	-	-	-	-	4,992
Year 5	2004	5,199	-	-	-	-	-	5,199
Year 6	2005	5,300	-	-	-	-	-	5,300
Year 7	2006	5,668	-	-	-	-	-	5,668
Year 8	2007	6,203	-	-	-	-	-	6,203
Year 9	2008	5,918	-	-	-	-	-	5,918
Year 10	2009	5,741	-	-	-	-	-	5,741
Year 11	0	-	-	-	-	-	-	-
Year 12	0	-	-	-	-	-	-	-
Year 13	0	-	-	-	-	-	-	-
Year 14	0	-	-	-	-	-	-	-
Year 15	0	-	-	-	-	-	-	-
10 - 15 year baseline average gross water use								**5,352**
5 Year Baseline - Gross Water Use								
Year 1	2005	5,300	-	-	-	-	-	5,300
Year 2	2006	5,668	-	-	-	-	-	5,668
Year 3	2007	6,203	-	-	-	-	-	6,203
Year 4	2008	5,918	-	-	-	-	-	5,918
Year 5	2009	5,741	-	-	-	-	-	5,741
5 year baseline average gross water use								**5,766**
2015 Compliance Year - Gross Water Use								
2015		4,163	-	-	-	-	-	**4,163**

* NOTE that the units of measure must remain consistent throughout the UWMP, as reported in Table 2-3

NOTES: Units of measure are acre-feet (AF).

SB X7-7 Table 4-A: Volume Entering the Distribution System(s)

Complete one table for each source.

Name of Source	Groundwater
This water source is:	
☑	The supplier's own water source
☐	A purchased or imported source

Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	2000	4,592	-	4,592
Year 2	2001	4,955	-	4,955
Year 3	2002	4,948	-	4,948
Year 4	2003	4,992	-	4,992
Year 5	2004	5,199	-	5,199
Year 6	2005	5,300	-	5,300
Year 7	2006	5,668	-	5,668
Year 8	2007	6,203	-	6,203
Year 9	2008	5,918	-	5,918
Year 10	2009	5,741	-	5,741
Year 11	0			-
Year 12	0			-
Year 13	0			-
Year 14	0			-
Year 15	0			-
5 Year Baseline - Water into Distribution System				
Year 1	2005	5,300	-	5,300
Year 2	2006	5,668	-	5,668
Year 3	2007	6,203	-	6,203
Year 4	2008	5,918	-	5,918
Year 5	2009	5,741	-	5,741
2015 Compliance Year - Water into Distribution System				
2015		4,163	-	4,163

** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES: Units of measure are acre-feet (AF). Source: City Well Production Records.

SB X7-7 Table 4-B: Indirect Recycled Water Use Deduction *(For use only by agencies that are deducting indirect recycled water)*

Baseline Year *Fm SB X7-7 Table 3*		**Surface Reservoir Augmentation**					**Groundwater Recharge**			**Total Deductible Volume of Indirect Recycled Water Entering the Distribution System**
		Volume Discharged from Reservoir for Distribution System Delivery	Percent Recycled Water	Recycled Water Delivered to Treatment Plant	Transmission/ Treatment Loss	Recycled Volume Entering Distribution System from Surface Reservoir Augmentation	Recycled Water Pumped by Utility*	Transmission/ Treatment Losses	Recycled Volume Entering Distribution System from Groundwater Recharge	
10-15 Year Baseline - Indirect Recycled Water Use										
Year 1	2000			-		-			-	-
Year 2	2001			-		-			-	-
Year 3	2002			-		-			-	-
Year 4	2003			-		-			-	-
Year 5	2004			-		-			-	-
Year 6	2005			-		-			-	-
Year 7	2006			-		-			-	-
Year 8	2007			-		-			-	-
Year 9	2008			-		-			-	-
Year 10	2009			-		-			-	-
Year 11	0			-		-			-	-
Year 12	0			-		-			-	-
Year 13	0			-		-			-	-
Year 14	0			-		-			-	-
Year 15	0			-		-			-	-
5 Year Baseline - Indirect Recycled Water Use										
Year 1	2005			-		-			-	-
Year 2	2006			-		-			-	-
Year 3	2007			-		-			-	-
Year 4	2008			-		-			-	-
Year 5	2009			-		-			-	-
2015 Compliance - Indirect Recycled Water Use										
2015				-		-			-	-

**Suppliers will provide supplemental sheets to document the calculation for their input into "Recycled Water Pumped by Utility". The volume reported in this cell must be less than total groundwater pumped - See Methodology 1, Step 8, section 2.c.*

NOTES: Units are acre-feet (AF). Sources: Annual Report to the Drinking Water Program and AWWA Water Audit Wksht.

SB X7-7 Table 4-C: Process Water Deduction Eligibility *(For use only by agencies that are deducting process water) Choose Only One*	
☐	**Criteria 1**- Industrial water use is equal to or greater than 12% of gross water use. Complete SB X7-7 Table 4-C.1
☐	**Criteria 2** - Industrial water use is equal to or greater than 15 GPCD. Complete SB X7-7 Table 4-C.2
☐	**Criteria 3** - Non-industrial use is equal to or less than 120 GPCD. Complete SB X7-7 Table 4-C.3
☐	**Criteria 4** - Disadvantaged Community. Complete SB x7-7 Table 4-C.4
NOTES:	

SB X7-7 Table 4-C.1: Process Water Deduction Eligibility					
Criteria 1 Industrial water use is equal to or greater than 12% of gross water use					
Baseline Year *Fm SB X7-7 Table 3*		Gross Water Use Without Process Water Deduction	Industrial Water Use	Percent Industrial Water	**Eligible for Exclusion Y/N**
10 to 15 Year Baseline - Process Water Deduction Eligibility					
Year 1	2000	4,592		0%	NO
Year 2	2001	4,955		0%	NO
Year 3	2002	4,948		0%	NO
Year 4	2003	4,992		0%	NO
Year 5	2004	5,199		0%	NO
Year 6	2005	5,300		0%	NO
Year 7	2006	5,668		0%	NO
Year 8	2007	6,203		0%	NO
Year 9	2008	5,918		0%	NO
Year 10	2009	5,741		0%	NO
Year 11	0	-			NO
Year 12	0	-			NO
Year 13	0	-			NO
Year 14	0	-			NO
Year 15	0	-			NO
5 Year Baseline - Process Water Deduction Eligibility					
Year 1	2005	5,300		0%	NO
Year 2	2006	5,668		0%	NO
Year 3	2007	6,203		0%	NO
Year 4	2008	5,918		0%	NO
Year 5	2009	5,741		0%	NO
2015 Compliance Year - Process Water Deduction Eligiblity					
2015		4,163		0%	NO
NOTES:					

SB X7-7 Table 4-C.2: Process Water Deduction Eligibility					
Criteria 2 Industrial water use is equal to or greater than 15 GPCD					
Baseline Year *Fm SB X7-7 Table 3*		Industrial Water Use	Population	Industrial GPCD	**Eligible for Exclusion Y/N**
10 to 15 Year Baseline - Process Water Deduction Eligibility					
Year 1	2000		19,483	-	NO
Year 2	2001		19,166	-	NO
Year 3	2002		20,005	-	NO
Year 4	2003		20,256	-	NO
Year 5	2004		21,187	-	NO
Year 6	2005		21,894	-	NO
Year 7	2006		24,408	-	NO
Year 8	2007		26,746	-	NO
Year 9	2008		24,473	-	NO
Year 10	2009		22,662	-	NO
Year 11	0		-		NO
Year 12	0		-		NO
Year 13	0		-		NO
Year 14	0		-		NO
Year 15	0		-		NO
5 Year Baseline - Process Water Deduction Eligibility					
Year 1	2005		21,894	-	NO
Year 2	2006		24,408	-	NO
Year 3	2007		26,746	-	NO
Year 4	2008		24,473	-	NO
Year 5	2009		22,662	-	NO
2015 Compliance Year - Process Water Deduction Eligibility					
2015			24,419	-	NO
NOTES:					

SB X7-7 Table 4-C.3: Process Water Deduction Eligibility							
Criteria 3 Non-industrial use is equal to or less than 120 GPCD							
Baseline Year *Fm SB X7-7 Table 3*		Gross Water Use Without Process Water Deduction *Fm SB X7-7 Table 4*	Industrial Water Use	Non-industrial Water Use	Population *Fm SB X7-7 Table 3*	Non-Industrial GPCD	**Eligible for Exclusion Y/N**
10 to 15 Year Baseline - Process Water Deduction Eligibility							
Year 1	2000	4,592		4,592	19,483	210	NO
Year 2	2001	4,955		4,955	19,166	231	NO
Year 3	2002	4,948		4,948	20,005	221	NO
Year 4	2003	4,992		4,992	20,256	220	NO
Year 5	2004	5,199		5,199	21,187	219	NO
Year 6	2005	5,300		5,300	21,894	216	NO
Year 7	2006	5,668		5,668	24,408	207	NO
Year 8	2007	6,203		6,203	26,746	207	NO
Year 9	2008	5,918		5,918	24,473	216	NO
Year 10	2009	5,741		5,741	22,662	226	NO
Year 11	0	-		-	-		NO
Year 12	0	-		-	-		NO
Year 13	0	-		-	-		NO
Year 14	0	-		-	-		NO
Year 15	0	-		-	-		NO
5 Year Baseline - Process Water Deduction Eligibility							
Year 1	2005	5,300		5,300	21,894	216	NO
Year 2	2006	5,668		5,668	24,408	207	NO
Year 3	2007	6,203		6,203	26,746	207	NO
Year 4	2008	5,918		5,918	24,473	216	NO
Year 5	2009	5,741		5,741	22,662	226	NO
2015 Compliance Year - Process Water Deduction Eligiblity							
2015		4,163		4,163	24,419	152	NO
NOTES:							

SB X7-7 Table 4-C.4: Process Water Deduction Eligibility

Criteria 4

Disadvantaged Community. A "Disadvantaged Community" (DAC) is a community with a median household income less than 80 percent of the statewide average.

SELECT ONE

"Disadvantaged Community" status was determined using one of the methods listed below:

☐ **1. IRWM DAC Mapping tool**
http://www.water.ca.gov/irwm/grants/resources_dac.cfm

If using the IRWM DAC Mapping Tool, include a screen shot from the tool showing that the service area is considered a DAC.

☑ **2. 2010 Median Income**

California Median Household Income		Service Area Median Household Income	Percentage of Statewide Average	**Eligible for Exclusion? Y/N**
2015 Compliance Year - Process Water Deduction Eligibility				
2010	$60,883	$58,476	96%	NO

NOTES:

SB X7-7 Table 4-D: Process Water Deduction - Volume *Complete a separate table for each industrial customer with a process water exclusion*						
Name of Industrial Customer		*Industrial Customer 1*				
Baseline Year *Fm SB X7-7 Table 3*		Industrial Customer's Total Water Use	Total Volume Supplied by Water Agency	% of Water Supplied by Water Agency	Customer's Total Process Water Use	Volume of Process Water Eligible for Exclusion for this Customer
10 to 15 Year Baseline - Process Water Deduction						
Year 1	2000					-
Year 2	2001					-
Year 3	2002					-
Year 4	2003					-
Year 5	2004					-
Year 6	2005					-
Year 7	2006					-
Year 8	2007					-
Year 9	2008					-
Year 10	2009					-
Year 11	0					-
Year 12	0					-
Year 13	0					-
Year 14	0					-
Year 15	0					-
5 Year Baseline - Process Water Deduction						
Year 1	2005					-
Year 2	2006					-
Year 3	2007					-
Year 4	2008					-
Year 5	2009					-
2015 Compliance Year - Process Water Deduction						
2015						-
NOTES:						

SB X7-7 Table 5: Gallons Per Capita Per Day (GPCD)				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Annual Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use (GPCD)
10 to 15 Year Baseline GPCD				
Year 1	2000	19,483	4,592	210
Year 2	2001	19,166	4,955	231
Year 3	2002	20,005	4,948	221
Year 4	2003	20,256	4,992	220
Year 5	2004	21,187	5,199	219
Year 6	2005	21,894	5,300	216
Year 7	2006	24,408	5,668	207
Year 8	2007	26,746	6,203	207
Year 9	2008	24,473	5,918	216
Year 10	2009	22,662	5,741	226
Year 11	0	-	-	
Year 12	0	-	-	
Year 13	0	-	-	
Year 14	0	-	-	
Year 15	0	-	-	
10-15 Year Average Baseline GPCD				**217**
5 Year Baseline GPCD				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use
Year 1	2005	21,894	5,300	216
Year 2	2006	24,408	5,668	207
Year 3	2007	26,746	6,203	207
Year 4	2008	24,473	5,918	216
Year 5	2009	22,662	5,741	226
5 Year Average Baseline GPCD				**215**
2015 Compliance Year GPCD				
2015		24,419	4,163	**152**

NOTES: Units of measure are acre-feet (AF).

SB X7-7 Table 6: Gallons per Capita per Day *Summary From Table SB X7-7 Table 5*	
10-15 Year Baseline GPCD	217
5 Year Baseline GPCD	215
2015 Compliance Year GPCD	152
NOTES: Units are gallons per capita per day (GPCD).	

SB X7-7 Table 7: 2020 Target Method *Select Only One*		
Target Method		Supporting Documentation
☑	Method 1	SB X7-7 Table 7A
☐	Method 2	SB X7-7 Tables 7B, 7C, and 7D *Contact DWR for these tables*
☐	Method 3	SB X7-7 Table 7-E
☐	Method 4	Method 4 Calculator
NOTES:		

SB X7-7 Table 7-A: Target Method 1 20% Reduction	
10-15 Year Baseline GPCD	**2020 Target GPCD**
217	**174**
NOTES: Units are gallons per capita per day (GPCD).	

SB X7-7 Table 7-B: Target Method 2 Water Use	Target Landscape

Tables for Target Method 2 (SB X7-7 Tables 7-B, 7-C, and 7-D) are not included in the SB X7-7 Verification Form, but are still required for water suppliers using Target Method 2. These water suppliers should contact Gwen Huff at (916) 651-9672 or gwen.huff@water.ca.gov

SB X7-7 Table 7-C: Target Method 2 Target CII Water Use
Tables for Target Method 2 (SB X7-7 Tables 7-B, 7-C, and 7-D) are not included in the SB X7-7 Verification Form, but are still required for water suppliers using Target Method 2. These water suppliers should contact Gwen Huff at (916) 651-9672 or gwen.huff@water.ca.gov

SB X7-7 Table 7-D: Target Method 2 Summary
Tables for Target Method 2 (SB X7-7 Tables 7-B, 7-C, and 7-D) are not included in the SB X7-7 Verification Form, but are still required for water suppliers using Target Method 2. These water suppliers should contact Gwen Huff at (916) 651-9672 or gwen.huff@water.ca.gov

SB X7-7 Table 7-E: Target Method 3				
Agency May Select More Than One as Applicable	Percentage of Service Area in This Hydrological Region	Hydrologic Region	"2020 Plan" Regional Targets	Method 3 Regional Targets (95%)
☐		North Coast	137	130
☐		North Lahontan	173	164
☐		Sacramento River	176	167
☐		San Francisco Bay	131	124
☑	100%	San Joaquin River	174	165
☐		Central Coast	123	117
☐		Tulare Lake	188	179
☐		South Lahontan	170	162
☐		South Coast	149	142
☐		Colorado River	211	200
Target *(If more than one region is selected, this value is calculated.)*				**165**

NOTES: Units are gallons per capita per day (GPCD).

SB X7-7 Table 7-F: Confirm Minimum Reduction for 2020 Target			
5 Year Baseline GPCD *From SB X7-7 Table 5*	Maximum 2020 Target[1]	Calculated 2020 Target[2]	**Confirmed 2020 Target**
215	204	174	**174**

[1] Maximum 2020 Target is 95% of the 5 Year Baseline GPCD [2] 2020 Target is calculated based on the selected Target Method, see SB X7-7 Table 7 and corresponding tables for agency's calculated target.

NOTES: Units are gallons per capita per day (GPCD).

SB X7-7 Table 8: 2015 Interim Target GPCD		
Confirmed 2020 Target *Fm SB X7-7 Table 7-F*	10-15 year Baseline GPCD *Fm SB X7-7 Table 5*	**2015 Interim Target GPCD**
174	217	**196**
NOTES: Units are gallons per capita per day (GPCD).		

SB X7-7 Table 9: 2015 Compliance								
Actual 2015 GPCD	2015 Interim Target GPCD	Optional Adjustments *(in GPCD)*			TOTAL Adjustments	Adjusted 2015 GPCD	2015 GPCD *(Adjusted if applicable)*	**Did Supplier Achieve Targeted Reduction for 2015?**
		Enter "0" if Adjustment Not Used						
		Extraordinary Events	Weather Normalization	Economic Adjustment				
152	196	*From Methodology 8 (Optional)*	*From Methodology 8 (Optional)*	*From Methodology 8 (Optional)*	-	152	152	**YES**

NOTES: Units are gallons per capita per day (GPCD).

Appendix D

DEPARTMENT OF WATER RESOURCES BULLETIN 118
COSUMNES SUBBASIN

San Joaquin Valley Groundwater Basin
Cosumnes Subbasin

- Groundwater Basin Number: 5-22.16
- County: Sacramento, San Joaquin
- Surface Area: 281,000 acres (439 square miles)

Basin Boundaries and Hydrology

The San Joaquin Valley comprises the southern portion of the Great Valley Geomorphic Province of California. The Great Valley is a broad structural trough bounded by the tilted block of the Sierra Nevada on the east and the complexly folded and faulted Coast Ranges on the west. The Cosumnes Subbasin is defined by the areal extent of unconsolidated to semiconsolidated sedimentary deposits that are bounded on the north and west by the Cosumnes River, on the south by the Mokelumne River, and on the east by consolidated bedrock of the Sierra Nevada Mountains.

The Cosumnes Subbasin is bounded on the south and southwest by the Eastern San Joaquin Subbasin and on the north to northwest by the South American Subbasin of the Sacramento Valley Groundwater Basin.
The subbasin drains westward through three major rivers namely, the Cosumnes on the north, Dry Creek in the middle of the basin, and the Mokelumne River on the south. A large surface water body, the Camanche Reservoir, is located along a portion of the Mokelumne River in the southeast part of the subbasin.

Annual precipitation within the subbasin ranges from approximately 15 inches on the west to about 22 inches on the east.

Hydrogeologic Information

Water Bearing Formations

The Cosumnes subbasin aquifer system is comprised of continental deposits of Late Tertiary to Quaternary age. These deposits include Younger Alluvium, Older Alluvium, and Miocene/Pliocene Volcanics. The cumulative thickness of these deposits increases from a few hundred feet near the Sierra Nevada foothills on the east to over 2,500 feet along the western margin of the subbasin.

Younger Alluvium: This unit includes Recent stream channel deposits and dredge tailings. The maximum combined thickness of all the younger alluvial units is about 100 feet. Calculated specific yield values range from about 6 percent in the alluvial deposits to about 12 percent in the stream channel deposits (Olmstead and Davis 1961).

Minor exposures of dredge tailings are present along the Cosumnes and Mokelumne Rivers at the eastern margin of the subbasin. They consist of windrows of gravel, cobbles, boulders, sand, and silt resulting from gold dredging operations. The tailings are highly permeable, but well construction is complicated by the presence of cobbles and boulders.

The stream channel deposits include sediments deposited in the channels of active streams as well as overbank deposits and terraces of those streams. They occur along the Sacramento, Cosumnes, and Mokelumne Rivers and their major tributaries and consist primarily of unconsolidated silt, fine- to medium-grained sand, and gravel. Sand and gravel zones in the younger alluvium are highly permeable and yield significant quantities of water to wells.

Older Alluvium: This unit consists of loosely to moderately compacted sand, silt, and gravel deposited in alluvial fans during the Pliocene and Pleistocene. A number of formational names have been assigned to the older alluvium, including the Modesto and Riverbank Formations (Helley and Harwood, 1985), Victor Formation and Laguna Formation (Olmstead and Davis, 1961), and Victor Formation, Laguna Formation, Arroyo Seco Gravels, South Fork Gravels, and Fair Oaks Formation (DWR, 1974). The older alluvial units are widely exposed between the Sierra Nevada foothills and overlying younger alluvial units near the axis of the Sacramento Valley. Thickness of the older alluvium is about 100 to 650 feet. It is moderately permeable. The calculated specific yield of these deposits is approximately 6 to 7 percent (Olmstead and Davis 1961).

Miocene/Pliocene Volcanics: This unit consists of the Mehrten Formation, a sequence of fragmental volcanic rocks, which crops out in a discontinuous band along the eastern margin of the basin. It is composed of intervals of "black sands," stream gravels, silt, and clay interbedded with intervals of dense tuff breccia. The sand and gravel intervals are highly permeable and wells completed in them can have high yields. The tuff breccia intervals act as confining layers. Thickness of the unit is between 200 and 1,200 feet. Specific yields for this unit range from about 6 to 12 percent (O&D 1961).

Groundwater Level Trends

A review of 23 long-term hydrographs dating back to the early 1960s shows a fairly consistent pattern of water level trends through much of the subbasin. Wells outside the influence of the Cosumnes River declined from the mid-1960s to about 1980 on the order of 20 to 30 feet. From 1980 through 1986, water levels recovered on the order of 5 to 10 feet. During the 1987 through 1992 drought, water levels once again declined by 10 to 15 feet. From 1993 through 2000, much of the basin recovered by 15 to 20 feet, leaving water levels at the about the same elevation or slightly higher than they were in the mid-1980s. One exception is along the eastern subbasin margin where water levels remained fairly constant during the 1993 through 2000 recovery period. Prior to that, those eastern wells behaved similarly to other wells in the subbasin.

Groundwater Storage

Groundwater Storage Capacity. Groundwater storage capacity is estimated to be on the order of 6,000,000 af based on data from DWR 1967 and DWR 1974. This estimate is based on a surface area of 281,000 acres, an aquifer thickness of 290 feet (20 to 310 feet depths), and an average specific yield of 7.4 percent.

Groundwater in Storage. There are no published estimates of groundwater in storage available.

Groundwater Budget (Type A)

Montgomery Watson Consultants (Montgomery Watson 1993) developed a groundwater model for Sacramento County. A subsequent model was developed for San Joaquin County by Montgomery Watson as part of the American River Water Resources Investigation (USBR 1996). Based on running these models together and with data updates, Bookman-Edmonston/Navigant Consulting provided estimates of several groundwater budget components for an area generally corresponding to the Cosumnes Subbasin. The data represent an average budget for the period from 1970 to 1995. Basin inflows include natural and applied water recharge, which total 269,518 af. Subsurface inflow and outflow are not known specifically, but the model indicates that there is a net subsurface outflow of 144,551 af. Other groundwater outflows include annual urban extraction of 35,063 af, and agricultural extraction calculated by the model of 94,198 af.

Groundwater Quality

Characterization. Groundwater contained in the water-bearing deposits underlying most of Sacramento County is of excellent mineral quality for irrigation and domestic use (DWR 1974). Within the subbasin, calcium-magnesium and calcium-sodium bicarbonate water types are most common (DWR 1974 and Sorenson 1981). Groundwater from wells in the San Joaquin County portion of the subbasin typically show specific conductance values of less than 500 μmhos/cm (Sorenson 1981). Based on analyses of 20 water supply wells in the subbasin, TDS ranges from 140 to 438 mg/L and averages about 218 mg/L.

Impairments. No significant impairments were identified.

Water Quality in Public Supply Wells

Constituent Group[1]	Number of wells sampled[2]	Number of wells with a concentration above an MCL[3]
Inorganics – Primary	26	0
Radiological	17	0
Nitrates	30	0
Pesticides	22	1
VOCs and SVOCs	22	0
Inorganics – Secondary	26	21

[1] A description of each member in the constituent groups and a generalized discussion of the relevance of these groups are included in *California's Groundwater – Bulletin 118* by DWR (2003).
[2] Represents distinct number of wells sampled as required under DHS Title 22 program from 1994 through 2000.
[3] Each well reported with a concentration above an MCL was confirmed with a second detection above an MCL. This information is intended as an indicator of the types of activities that cause contamination in a given basin. It represents the water quality at the sample location. It does not indicate the water quality delivered to the consumer. More detailed drinking water quality information can be obtained from the local water purveyor and its annual Consumer Confidence Report.

Well Characteristics

	Well yields (gal/min)	
Municipal/Irrigation	Well yields in the fresh water-bearing formations underlying the basin range (in general) from about 650 to 1,500 gpm	
	Total depths (ft)	
Domestic	Range: 10 – 812	Average: 261 (Based on 832 well completion reports)
Municipal/Irrigation	Range: 130 – 934	Average: 473 (Based on 48 well completion reports)

Active Monitoring Data

Agency	Parameter	Number of wells /measurement frequency
DWR and cooperators	Groundwater levels	71 wells semiannually 4 wells monthly
DWR and cooperators	Miscellaneous water quality	13 wells every two years
Department of Health Services and cooperators	Title 22 water quality	72 wells annually

Basin Management

Groundwater management:	San Joaquin County adopted a groundwater management ordinance in 1996. Sacramento Metropolitan Water Authority adopted an AB 3030 plan on November 14, 1994. Water agencies that are part of the authority and active in the Cosumnes subbasin are denoted by a *. Northeastern San Joaquin County Groundwater Banking Authority adopted a groundwater management plan.
Water agencies	
Public	Galt ID*, Jackson Valley ID, North Delta WA, North San Joaquin WCD, Omochumne-Hartnell WD*, Clay WD*, Amador WA, Calaveras County WD, City of Galt Service Area*, Rancho Murieta CSD*, Sacramento County WD, Sacramento County MUD, North San Joaquin WCD
Private	

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Errata

Updated groundwater management information and added hotlinks to applicable websites. (2/03/06)

SOUTH BASIN GROUNDWATER MANAGEMENT PLAN

The South Basin Groundwater Management Plan can be viewed at the address below.

http://ohwd.org/ESW/Files/SSCAWA_GMP_final%5b1%5d.pdf

Appendix F

2014 ANNUAL DRINKING WATER QUALITY REPORT

CITY OF GALT
Public Works Department
495 Industrial Way
Galt, CA 95632

City Water Customer
Postal Address
Galt, CA 95632

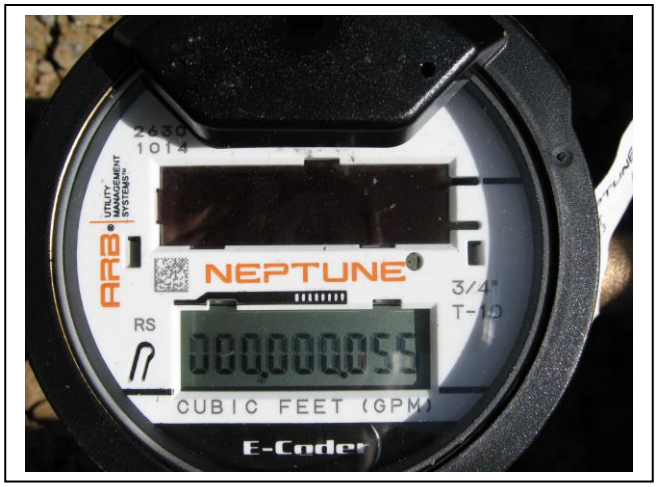
Annual Drinking Water Quality Report - 2014

THIS REPORT CONTAINS IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Please take a few minutes to read your annual water quality report. From the information inside, you will learn:

- **Sources of your drinking water**
- **What is in the water you drink**
- **Water quality test results**
- **Common water-related concerns**
- **Water conservation tips**

Este informe contiene información muy importante sobre el agua potable (para tomar). Por favor, tradúzcalo ó hable con alguien que se lo pueda leer.



If you have any questions regarding this report or concerning your water quality, please contact the Public Works Utilities Division at (209) 366-7260. The Utilities Division is working daily to improve the water quality and efficiency of our system for the citizens of Galt. Supplying sufficient, safe drinking water is our foremost concern.

ANNUAL DRINKING WATER QUALITY REPORT 2014 – CITY OF GALT

This Report, prepared May 2015, is designed to inform you about the quality of water the City delivers to you every day. The City's mission is to provide you with a safe and dependable supply of drinking water and we want you to understand our ongoing efforts to improve the water treatment process and protect our water resources. The City is committed to ensuring the quality of your water and maintaining excellent customer service.

Este informe, preparado en el Mayo de 2015, es un resumen de la calidad del agua potable que proveimos el año pasado. Este informe muestra que el agua es segura y que reune los requisistos estatales como agua saludable. El estado requiere que hagamos pruebas regularmente para asegurarnos de la calidad del agua potable. Nosotros estamos comprometidos a proveerle información para tener al cliente informado ya que el es nuestro mejor aliado. Si desea hablar con alguien en Español sobre este reporte, comuníquese al El Condado del sur Atiende (South County Services) al (209) 745-9174.

The City of Galt's Water Supply Source

The City of Galt supplies water through the operation of eight active wells at locations throughout the City. These wells draw water from the Sacramento Valley groundwater basin. We are fortunate to have good quality groundwater in our area. The water is treated to remove iron and manganese to improve taste and reduce odor. Some wells are also treated to remove arsenic, a naturally occurring contaminant. Finally, low levels of chlorine are added as a disinfectant.

The City's water system is a closed system with all wells contributing to the water delivered throughout the City. No users are served by just one well ensuring a blend of water. In total, the wells pumped 1,754 million gallons of water in 2014. Current water conservation activities have helped drop the water demand by 12.3% over 2013 levels. More information, including individual well data, may be obtained by contacting the Public Works Utilities Division at (209) 366-7260.

Summary of Testing Results

The City tests its water system extensively to ensure that we deliver safe drinking water. Water quality and testing standards are set by the State Water Resources Control Board - Division of Drinking Water (State Board). The constituent amounts reported are based on a "flow weighted average" from all wells in the system and these figures can be used as an indication of the overall water quality.

The enclosed table shows the results of our monitoring for the period of January 1 to December 31, 2014**.** All drinking water, bottled water included, may be expected to contain at least small amounts of some natural contaminants. The normal presence of these contaminants at low levels within State Board standards does not necessarily indicate a health risk. More information about contaminants and potential health effects can be obtained by calling the U.S. Environmental Protection Agency's (USEPA's) Safe Drinking Water Hotline (1-800-426-4791) or also at the following website: http://www.epa.gov/safewater. The test data indicates that water provided by the City of Galt is in compliance with all State Board standards.

The City regularly monitors the water system at various points for indications of bacterial contamination and other constituents such as Trihalomethanes (which are by-products of the disinfectant process treatment) and other potentially harmful contaminants. We also examine other desirable characteristics of the water. Our filtered water has low turbidity as well as low levels of total dissolved solids. These factors make our water aesthetically pleasing and better tasting.

In August of 2014 City of Galt received a citation for failure to sample all of its well sites for Nitrates in 2013. These samples are to be pulled every year. The City of Galt immediately pulled these samples to get back into compliance. There was no health risk to the citizens of Galt.

General Information on Drinking Water

The State Board and the USEPA require that the language in this section be included in this notice. Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immuno-system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice from their health care providers about drinking water. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are also available from the Safe Drinking Water Hotline (1-800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the land surface or through the ground, it dissolves naturally-occurring minerals and in some cases radioactive material and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals, can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Pesticides and herbicides may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- Radioactive contaminants can be naturally-occurring or the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the USEPA and the State Board prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. These regulations also establish limits for contaminants in bottled water that provide the same protection for public health. While your drinking water meets the federal and state standard for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The USEPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems. Some people who drink water containing arsenic in excess of the Maximum Contaminant Level (MCL) over many years may experience skin damage or circulatory system problems and may have an increased risk of getting cancer.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in the drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Galt is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

TEST RESULTS THROUGH 2014

Contaminant	Violation Yes/No	Sample Year	Average Value	Value Range	Units	MCL	PHG (MCLG)	Likely Source of Contamination
Table 1: Microbiological Contaminants								
Total Coliform Bacteria (Total Coliform Rule)	No	2014	ND	ND	Absence/ Presence	Presence in 2 or more monthly samples	(0)	Naturally present in the environment.
Heterotrophic Plate Count	No	2014	2.45	ND-12	Number	TT	N/A	Naturally present in the environment.
Table 2: Lead and Copper* (Please note that Lead was not detected in tap samples during the 2014 monitoring round)								
Copper	No	2013	90th % = 0.22	ND-0.63	ppm	AL=1.3	.03	Internal corrosion of household plumbing; erosion of natural deposits.
Table 3: Sodium and Hardness								
Sodium	No	2013	26.7	14 - 48	ppm	N/A	N/A	Leaching from natural deposits.
Hardness	No	2013	56.7	32-100	ppm	N/A	N/A	Leaching from natural deposits.
Table 4: Primary Drinking Water Standards (Please note that Disinfection Byproducts were not detected in 2014)								
Antimony	No	2013	0.013	ND-0.091	ppb	6	20	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder.
Arsenic	No	2014	6.32	ND-12	ppb	10	4	Erosion of natural deposits; runoff from orchards; glass & electronics waste.
Barium	No	2013	0.16	0.014-0.31	ppb	1	2	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits.
Cadmium	No	2013	0.31	ND –1.1	ppb	5	0.04	Internal corrosion of galvanized pipes; erosion of natural deposits; discharge from electroplating and industrial chemical factories, and metal refineries; runoff from waste batteries and paints.
Chlorine	No	2014	.76	0.51-1.04	ppm	[MRDL = 4.0 (as Cl_2)]	[MRDLG = 4 (as Cl_2)]	Drinking water disinfectant added for treatment.
Fluoride	No	2013	0.047	ND-0.33	ppm	2	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Methoxychlor	No	2013	0.0015	ND-0.0108	ppb	30	0.09	Run-off/leaching from insecticide used on fruits, vegetables, alfalfa and livestock.
Table 5: Secondary Drinking Water Standards (There are no PHG/MCLG for these constituents because these MCLs are set on the basis of aesthetics.)								
Iron	No	2013	38.8	ND-0.35	ppb	300	N/A	Leaching from natural deposits; industrial wastes.
Manganese	No	2014	8.20	ND-48	ppb	50	N/A	Leaching from natural deposits.
Zinc	No	2013	0.0008	ND-0.0054	ppm	5	N/A	Run-off/leaching from natural deposits; industrial wastes.
Total Dissolved Solids	No	2013	167	150-200	ppm	1000	N/A	Run-off/Leaching from natural deposits.
Specific Conductance	No	2013	207	190-230	µS/cm	1600	N/A	Substances that form ions when in water; seawater influence
Chloride	No	2013	4.6	4.1-6.0	ppm	500	N/A	Run-off/leaching from natural deposits; seawater influence.
Sulfate	No	2013	2.8	0.37-5.5	ppm	500	N/A	Run-off/leaching from natural deposits; industrial wastes.
pH	No	2013	7.72	7.51-8.4	pH Units	8.5	N/A	Measure of acidity/alkalinity.

Data presented in this report are from the most recent testing done in accordance with the regulations. In this table you may find terms and abbreviations you are not familiar with, the following definitions have been provided for your convenience:

Non-Detects (ND) - Laboratory analysis indicates that the contaminant is not present.

Parts per million (ppm) or Milligrams per liter (mg/l)

Parts per billion (ppb) or Micrograms per liter (ug/l)

Parts per trillion (ppt) or Nanograms per liter (nanograms/l)

Parts per quadrillion (ppq) or Picograms per liter (picograms/l)

Picocuries per liter (pCi/L) - Picocuries per liter is a measure of the radioactivity in water.

Nephelometric Turbidity Unit (NTU) - Nephelometric turbidity unit is a measure of the clarity of water. Turbidity of 5 NTU is just noticeable to the average person.

Regulatory Action Level (AL) - The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.

Notification Level (NL) - The concentration of a contaminant, which, if exceeded, triggers special statement to notify consumers about the exceeded constituent.

Treatment Technique (TT) - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

Maximum Contaminant Level Goal - The "Goal" (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health.

Public Health Goal or (PHG) – The level of a contaminant in drinking water which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency. MCLGs and PHG's allow for a margin of safety.

Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Primary Drinking Water Standard (PDWS) – MCLs for contaminants that affect health, along with their monitoring, reporting, and water treatment requirements.

Maximum Residual Disinfectant Level (MRDL) - Level of a disinfectant added for water treatment that may not be exceeded at consumer's tap.
Maximum Residual Disinfectant Level Goal (MRDLG) - Level of disinfectant added for water treatment for which there is no known or expected risk to health. (Set by USEPA)
* Lead and Copper samples were taken at 42 residences and no Regulatory Action Levels (RAL) were exceeded. Lead was not detected in any sample.

Water Meter Installation Update

Please see the City's web site for complete up-to-date-information. A summary of the project is as follows:

Newly metered customers

The citywide water meter installation program is nearly complete. Customers that are currently receiving flat rate water bills (billed the same amount each month, regardless of amount used) will be transitioned to the City's metered rate next spring. In the months ahead, the City will be collecting data on customer water usage to provide **4 example billings** (covering 8 months), prior to sending the first actual metered bill. During this time, customers will continue to receive their traditional flat rate water billing. The example billings will be sent separately from the normal utility billings to avoid any confusion on what amount should be paid. The first example bill will be mailed in November and cover water usage from July 15 to September 15, 2015. The example billings will provide customers an idea of what their future meter-based billings may be. This will also give customers an opportunity to identify and repair any leaks, change household fixtures and irrigation devices to low-flow models and to adjust their water usage behaviors to reduce their future water bills.

Existing metered customers

New 'smart radio read meters' are being installed to replace existing manual read meters. Customers who are currently receiving metered water bills (the amount changes each billing period based upon actual usage) will continue to receive their normal billings. The 'smart meters' will allow customers to look up water usage on-line (via the internet) between normal billing intervals. The new meters also allow the City to identify significant potential water leaks and provide an early warning to affected customers, rather than receiving a large 'surprise' billing a month or two later.

Drought Update

The drought emergency declared by Governor Brown and adopted by the State Water Resources Control Board has placed strict restrictions on potable water use. The City of Galt is required to meet a conservation level of 32% reduction in total water usage, as compared to its 2013 usage amount. To meet the new requirements a **Stage 3 Water Warning** has been declared, pursuant to section 13.10.060 of the Galt Municipal Code.

Stage 3 Water Alert Declared

The City has imposed a Stage 3 Water Alert. The City's web site provides updated and detailed information on the conservation measures required. A short description of the requirements follows.

Required Conservation Measures

No "Waste of Water" is allowed. Water shall not escape from the water supply at the rate of one quart or more per hour. All worn or broken faucets, pipes or other fixtures, shall be repaired. No water is permitted to run from any hose, hose nozzle, valve or sprinkler in a wasteful, useless or non-beneficial manner.

In addition:

- Automatic shutoff devices shall be used on all hoses for the purposes of watering lawns or gardens or for the washing of vehicles, boats, equipment or similar uses.
- All leaking water lines and/or faulty sprinkler systems must be repaired within five days. Any water line beyond and including the connection to the curb stop shall be the resident's responsibility for repair and replacement.
- All pools, spas, ponds and ornamental fountains shall be equipped with a recirculating pump and shale be constructed in a leak proof manner. Draining and refilling such structures shall be allowed only for health, maintenance or structural considerations, after approval of the City Engineer. Customer requests for approval must be validated in writing by a pool consultant.
- Watering lawns, flower beds, landscaping and similar uses will be limited to a maximum of two days per week, based on the following odd-even schedule:
  - Customers with street addresses ending with an even number may irrigate only on Wednesdays and/or Sundays;
  - Customers with street addresses ending with an odd number may irrigate only on Tuesdays and/or Saturdays;
  - No outdoor watering will be permitted on Monday, Thursday, or Friday.
- No washing of sidewalks, streets, driveways, parking lots, structures, or similar uses will be allowed except as authorized in writing by the City Engineer.
- Washing of vehicles, boats, equipment, etc. shall be accomplished under the following restrictions:
  - Water buckets shall be utilized;
  - Water hoses with automatic shutoff devices may be used for rinsing for a duration not to exceed three minutes.
- Restaurants shall serve water upon specific request.

Failure to comply with the preceding water restrictions can result in the following penalties for violations occurring within a 12 month period:

- First offense- A warning will be issued.
- Second offense- A fine of $25 to be added to the water bill.
- Third offense- A fine of $50 to be added to water bill.
- Fourth offense- A fine of $100 to be added to water bill.
- Additional offenses- A fine of $100 will be added to the water bill, plus the installation of a flow restrictor at the customer's expense.

For additional water conservation tips see the City's web site or http://saveourwater.com/

Help Protect Our Drinking Water System

Tampering with a public water system is a federal offense. Please report any suspicious activity occurring at any water facility or hydrant to the Galt Police Department at (209) 366-7000.

Appendix G

CITY CODE WATER CONSERVATION CHAPTER

Title 13

WATER SERVICES

Chapters:

13.04 WATER DEPARTMENT
13.08 WATER CONNECTIONS
13.10 WATER CONSERVATION

Chapter 13.04

WATER DEPARTMENT

Sections:

13.04.010 Water department established.
13.04.020 Service area.
13.04.030 Definitions.
13.04.040 Application for service.
13.04.050 Charges.
13.04.060 Metered flows.
13.04.070 Billing.
13.04.080 Revenue use.
13.04.090 Authority to inspect premises.
13.04.100 Inspection and work on properties subject to easements.
13.04.110 Discontinuance of service.
13.04.120 Violation.

Section 13.04.010 Water department established.

Unless the context specifically indicates otherwise, the meanings and terms used in this Chapter shall be as stated in section 13.04.030 of this code. (Ord. 2004-07, Repealed and Replaced, 10/19/2004)

Section 13.04.020 Service area.

The area in which service is or will be furnished by the department is that area lying within the City limits as the limits now prevail or may from time to time exist, and those areas outside the City limits which have been approved for such service by the City Council. (Ord. 2004-07, Repealed and Replaced, 10/19/2004)

Section 13.04.030 Definitions.

Unless the context specifically indicates otherwise, the meaning of terms used throughout Title 13 shall be as follows:

A. Air-gap - means the physical break between the supply pipe and a receiving vessel.

B. Applicant - means the owner, or the agent of the owner, of property for which a service connection or a specific permit is requested.

C. Auxiliary supply - means any water supply located on or available to a premise other than the public water system.

D. AWWA standard - means an official standard developed and approved by the American Water Works Association.

E. Backflow - means a flow condition caused by a differential in pressure that causes the flow of other liquids, gases, mixtures, or substances into the distribution lines of a potable water supply from any source or sources other than the public water system supply source.

F. Backflow prevention device - means devices which have passed laboratory and field evaluation tests performed by a backflow testing technician certified by the California Department of Health Services.

G. Commercial service - means provision of service to premises where the customer primarily is engaged in a business, trade or profession and includes all services not defined as domestic services. The term shall be used interchangeably with "industrial service".

H. Contamination - means a degradation of the quality of potable water by any foreign substance which creates a hazard to the public health or which may impair the usefulness or quality of the water.

I. Cross-connection - means any unprotected actual or potential connection between a potable water supply including the public water system and any source or system containing unapproved water or any substance that is not or cannot be approved as safe, wholesome, and potable.

J. Customer - means the owner, or agent of the owner, tenant, or lessee of the property receiving service, who has applied for and is the account holder for the service. For the purposes of this Title, a tenant (such as a tenant of a master-metered multi-unit building) is not the "customer" if the owner is the account holder.

K. Director - means the Director of Public Works for the City of Galt, or his/her authorized representative.

L. Domestic service - means provision of service for household residential purposes to single-family and multiple-family dwelling units.

M. 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.

N. Finance Director - means the Director of the Finance Department for the City of Galt or his/her representative.O. Flat-rate service - means provision of water in unmeasured quantities for a fixed periodic charge.

P. Health agency - means the California Department of Health Services or its designee.

Q. Industrial service - means provision of service to premises where the customer primarily is engaged in a business, industry, trade, or profession and includes all services, not defined as domestic services. The term shall be used interchangeably with "commercial service."

R. Local health agency - means the Sacramento County Environmental Management Department.

S. Mains - means distribution pipelines located in streets, highways, public ways, or private rights-of-way which are used to serve the public.

T. Metered service - means provision of water in measured quantities for a periodic charge based upon the quantity delivered.

U. Person - means any individual, firm, company, association, society, corporation, or group.

V. Premise - means the integral property or area, including improvements thereon, to which service is or will be provided. For residential units, a premise shall be a building or part of a building with its appurtenances.

W. Public water system - means the portion of the water system owned and operated by the City.

X. Reduced pressure principle assembly - means a backflow prevention device incorporating two independently acting check valves, a hydraulically operating and mechanically independent pressure relief valve, a shutoff valve at each end of the device, and necessary testing appurtenances.Y. Service connection - means the pipe, valves and other facilities by means of which service is conducted to or from the premises and the City's distribution systemZ. Service box - means the valve box, curb stop, or meter box at the point of connection to the public water system typically located near the curb or behind the sidewalk.
(Ord. 2004-07, Repealed and Replaced, 10/19/2004)

Section 13.04.040 Application for service.

All applications for the beginning, changing or discontinuing of water service shall be made to employees of the Finance Department on forms provided by the Finance Department and new customers may be required to pay a deposit in an amount not to exceed three times the monthly service charge as a deposit in advance of the start of service. The deposit requirement may be waived or reduced upon a finding of good credit or extreme financial hardship by the Finance Department. For purposes of this section, new customers shall include commercial, industrial, and residential customers, excluding tenants of master-metered multi-unit buildings, and those whose service has been discontinued due to nonpayment. (Ord. 2009-10, Amended, 07/07/2009; Ord. 2004-07, Add, 10/19/2004)

Section 13.04.050 Charges.

A. There is levied and assessed upon each premises having any water connection with the public water system of the city or otherwise receiving water from the public water system, a service charge payable as provided in this Chapter, in an amount determined as set forth in this section. Fees will also be charged for services rendered in accordance with Title 13 for special water permits.

B. Rates and charges for water service shall be fixed, from time to time, by resolution of the City Council.

C. Outside the City limits each person, firm, individual business or corporation using the City water system shall pay for the use of such facilities, a water service charge in accordance with this section.

D. When service is rendered for a period less than one billing cycle due to registering or terminating service, the charge will be prorated for the time the service was rendered. There shall be no proration for service discontinued for less than one billing cycle for lack of payment.

E. For periods of absence, during which services are discontinued, which exceed two weeks, any customer who provides at least twenty-four hours notice to City of such absence, shall be provided a credit for a period of nonuse upon payment of the discontinuation of service fee. Upon return, the customer shall

be responsible for notifying City within twenty-four hours of such return and the necessity of recommencing service.

F. When more than one flat, dwelling unit, or apartment building, or one premise, is supplied through one water tap, the charges by meter or by flat rate, as applicable, shall be to the owner and any applicable flat rates shall be charged in full for each and every premise connected with the water supply and capable of receiving service. If the premises have different owners, the water service shall be separated and separate service tap lines installed at the owner(s) expense prior to service being started. (Ord. 2004-07, Added, 10/19/2004)

Section 13.04.060 Metered flows.

A. All commercial and industrial services and all new residential units shall be metered and shall be charged based on the metered rates. Existing unmetered residential units will be metered when the City Council so directs. The Director of Public Works shall determine, for accounts and special uses not susceptible of classification under the resolutions adopted pursuant to this Chapter, whether exemptions to installing meters and/or metering water flow shall be granted. The rates for metered flow shall be fixed, per section 13.04.050.

B. Should the applicant desire a water meter installed in his water service or should the code require that one be installed, the applicant shall pay the rental of the same together with all costs of installation in accordance with the metered rate schedule. (Ord. 2004-07, Added, 10/19/2004)

Section 13.04.070 Billing.

A. The billing period will cover one month in arrears and one month in advance. Bills are due on receipt. Payment of bills shall be in cash and where payment is made by check, acceptance of the check does not constitute payment until honored by the bank drawn upon. If the check is dishonored, it will be considered as if no payment has been made.

B. If the bill is not paid when due, or by the fifth day of the calendar month following the billing period for which the bill is rendered, a penalty of ten percent of the delinquent amount shall be added. However, only one penalty of ten percent of delinquent amount per billing period will apply.

C. Upon application to the Finance Director by any person to whom a penalty is assessed, the Director may waive or refund a penalty or service charge upon showing of excusable neglect, error by parties other than the person to whom the penalty is assessed, or extreme hardship. Such application must be made within thirty (30) days of notification of the assessment of the service charge or penalty. A refusal to waive or refund a service charge or penalty, after application is made, may be appealed by submission of a written appeal hearing request to the City Clerk within thirty (30) days of the date of the notification of the Finance Director's decision. The hearing shall be set and conducted pursuant to section 21.03.060. The hearing officer's decision is final.

D. Commercial property owners and owners of all master-metered multi-unit residential buildings shall be responsible for all bills for water used on their premises and any and all unpaid bills for water service shall become a lien on the real property and may be collectible by legal action or by refusal of service to the premises until the account is paid in full, or by application of all or a portion of the deposit amount set forth in this Chapter to the unpaid bill, or by any combination of these methods.

E. The customer for water service for residential property, excluding master-metered multi-unit residential buildings, who may be either the property owner or tenant, shall be responsible for all bills for water used on their premises and any and all unpaid bills for water service. Unpaid bills may be collectible by application of all or a portion of the deposit money to the unpaid bill, by recordation of a lien on the real property, by other remedies as allowed by law, or by any combination of these methods.

F. The City may refuse service for outstanding unpaid bills. When service has been discontinued for nonpayment, a charge as established by resolution of the City Council as adopted from time to time must be paid in addition to the bill before service will be restored. In addition, in the event the Finance Department has applied any portion of the deposit to unpaid bills prior to the restoration of

service, the customer may be required to replenish the deposit up to the maximum amount provided in this Chapter. The deposit requirement may be waived or reduced upon a finding of good credit or extreme financial hardship by the Finance Department. (Ord. 2009-10, Amended, 07/07/2009; Ord. 2006-07, Amended, 06/06/2006; Ord. 2004-07, Add, 10/19/2004)

Section 13.04.080 Revenue use.

The revenues generated thereof from the water fund may be used only for providing water services through the management, construction, operations, and maintenance of the water system and related support services. (Ord. 2004-07, Added, 10/19/2004)

Section 13.04.090 Authority to inspect premises.

The Director and other duly authorized employees of the City bearing proper credentials and identification shall be permitted access to any premises where water is used at reasonable hours for the purpose of inspection and observation of any water connections, pipes, taps, or other water apparatus or equipment. If consent is not granted, the City shall have the right forthwith to discontinue such water service. (Ord. 2004-07, Add, 10/19/2004)

Section 13.04.100 Inspection and work on properties subject to easements.

The Director and other duly authorized employees of the City bearing proper credentials and identification shall be permitted to enter all private properties through which the City holds an easement for the purposes of, but not limited to, inspection, observation, measurement, sampling, repair, and maintenance of any portion of the water works lying within such easement. All entry and subsequent work, if any on such easement, shall be done in full accordance with the terms of the easement and any agreements pertaining to the private property involved. (Ord. 2004-07, Add, 10/19/2004)

Section 13.04.110 Discontinuance of service.

The City reserves the right to discontinue water services consistent with applicable law to any customer who does not observe the rules or regulations set forth in this Title. (Ord. 2004-07, Add, 10/19/2004)

Section 13.04.120 Violation.

The Director or designee shall enforce the provisions of this Title. Violation of any of the provisions of this Title is unlawful and an offense. Each day during which any violation of the provisions of this Title exists shall be deemed a separate and distinct violation. Such violations shall be punished as provided by Chapter 21.01 of Title 21. (Ord. 2006-07, Amended, 06/06/2006; Ord. 2004-07, Add, 10/19/2004)

Chapter 13.08

WATER CONNECTIONS

Sections:

13.08.010	**Definitions.**
13.08.020	**Use of public water system required.**
13.08.030	**Private well prohibited.**
13.08.040	**Hydrant permit required.**
13.08.050	**Connection permit required.**
13.08.060	**Connection fees.**
13.08.070	**Fund for water system improvements.**
13.08.080	**Connections by unauthorized person prohibited.**
13.08.090	**Connections - liability for injury.**
13.08.100	**Maintenance of public water connections.**
13.08.110	**Tampering with service connections prohibited.**
13.08.150	**Unauthorized service.**
13.08.170	**Responsibility for maintenance of service pipes, valves and other appliances.**
13.08.180	**Water supply restricted to premises covered by contract.**
13.08.190	**Temporary discontinuance of service for repairs.**

Section 13.08.010 Definitions.

Unless the context specifically indicates otherwise, the meanings and terms used in this Chapter shall be as stated in section 13.04.030 of this code.

(Ord. 2004-07, Repealed and Replaced, 10/19/2004)

Section 13.08.020 Use of public water system required.

Generally, premises requiring water service within the City limits shall connect to the City public water system.

A. New premises within 400 feet of an existing City water main shall be connected to that main for all water needs at the expense of the property owner.

B. Existing premises within 400 feet of an existing City water main not currently connected to the City water system, but being served through a privately owned well, shall be connected to the City public water system upon failure of the well or when the well requires substantial repairs. Any repair requiring a permit from the county shall be considered substantial. Additionally, such premises shall be connected to the City public water system when substantial private improvements are made to a premise. Private improvements that require public frontage improvements as defined in Title 15 of this code shall be considered substantial. Any wells servicing the premises shall then be destroyed in accordance with state and county requirements. All costs to connect to the public water system shall be at the expense of the property owner.

C. The Director of Public Works may grant exceptions to A & B above when in his/her determination it is infeasible to connect the premises to the City water system or it is in the best interests of the City to delay or forgo connection.

(Ord. 2004-07, Repealed and Replaced, 10/19/2004)

Section 13.08.030 Private well prohibited.

No person shall construct a new groundwater well in the City without permission of the Director of Public Works. Such permission shall only be granted if an exception is granted to connecting to the City public water system.

(Ord. 2004-07, Repealed and Replaced, 10/19/2004)

Section 13.08.040 Hydrant permit required.

No person shall make any connection to a fire hydrant or any other temporary connection point in the public water system without a written permit issued by the Director or a written agreement with the City. A copy of the permit issued must be present at the location where the temporary connection is made during the period of use.

(Ord. 2004-07, Repealed and Replaced, 10/19/2004)

Section 13.08.050 Connection permit required.

No person, except a duly authorized employee of the City shall make any connection

to the water mains except when authorized by a City issued encroachment permit or approved public improvement plan issued by the Director. A building permit may also be required if connecting to a premise. The applicant shall pay all applicable connection fees, the amount of which shall be fixed, from time to time, by resolution of the City Council.
(Ord. 2004-07, Repealed and Replaced, 10/19/2004)

Section 13.08.060 Connection fees.

The cost of connecting into a public water main within the City shall, until further changed by the City, be collectible at that time in which the building permit is issued to the applicant. The cost of resurfacing and/or repairing the City streets in connection therewith and in addition thereto the damage done, if any, to the public water system, will be in addition to the connection fee. The connection fees shall be established from time to time by resolution adopted by the City Council.
(Ord. 2004-07, Repealed and Replaced, 10/19/2004)

Section 13.08.070 Fund for water system improvements.

In the event that the connection fees set forth in Section 14.10.060 are not used by an applicant under the direction of the City for water system improvements external to the premises or site, the money or a portion thereof not used shall be used in the future for improvements to the City water system at the City's discretion. None of these funds shall be used for maintenance of the system.
(Ord. 2004-07, Repealed and Replaced, 10/19/2004)

Section 13.08.080 Connections by unauthorized person prohibited.

No person or persons except duly authorized City employees or licensed contractors to whom a permit has been especially granted by the City for the doing of the work, shall be permitted to connect any private water line from any building, premises or fixtures, with the public water system in the City. No unauthorized person shall uncover, make any connection with or opening into, use, alter or disturb any public water line, facility, or water system appurtenance thereof.
(Ord. 2004-07, Repealed and Replaced, 10/19/2004)

Section 13.08.090 Connections - liability for injury.

Any person connecting any private water line with a public water line shall be held responsible for any injury he may cause to the water system or the public street. The cost of repairing the damage if not paid by the person causing the same within thirty days shall become a lien upon the property owned or occupied by the person causing the damage, and may be foreclosed in the same manner as claims for labor or materials under the lien laws of this state, except that no equity or redemption shall apply.
(Ord. 2004-07, Repealed and Replaced, 10/19/2004)

Section 13.08.100 Maintenance of public water connections.

Where premises are connected to the City water mains, it is the responsibility of the property owner, at the owner's expense, to maintain the water service lateral from the premises to the City owned service connection box. Such maintenance shall include the removal of tree roots and the protection of the service box. The service box lid shall be kept free of turf and dirt and be accessible from the sidewalk. No fence or other obstruction shall separate the service box from the sidewalk or street curb. The property owner is also responsible for repairs of the lateral line within the property boundaries. The City will repair damaged and deteriorated lateral lines in the City right-of-way at City expense, unless such damage was caused by the property owner.
(Ord. 2004-07, Added, 10/19/2004)

Section 13.08.110 Tampering with service connections prohibited.

No unauthorized person shall tamper with or alter any meter, connection, turn-off valve, or any other part of the City water system. The curb stops for water are for the use of the City and shall not be turned off or on except by duly authorized City employees. In addition to

penalties and other remedies, the City reserves that right to discontinue water service to any customer tampering with or altering any meter, connection, turn-off valve or any other part of the City water service. The costs to the City for repair of any damage to curb stops, meters or other water system components relating to an individual customer's service, including replacement of locks as necessary, may be charged to the water account customer.
(Ord. 2004-07, Repealed and Replaced, 10/19/2004)

Section 13.08.150 Unauthorized service.

No plumber, contractor, or owner shall leave the water turned on at a new building unless he has knowledge that the service is on by consent of the duly authorized employees of the department, nor shall he reconnect any service found shut off at the service stop.
(Ord. 2004-07, Repealed and Replaced, 10/19/2004)

Section 13.08.170 Responsibility for maintenance of service pipes, valves and other appliances.

The owner or occupants of premises where water is used must keep all service pipes, valves and other appliances in good repair at all times and the department will not be liable for any damage occasioned by broken pipes or other apparatus within the applicant's premises or under his control.
(Ord. 2004-07, Repealed and Replaced, 10/19/2004)

Section 13.08.180 Water supply restricted to premises covered by contract.

Except as otherwise provide in this section, no person shall supply water service from his/her own service to any other property, manually or through a physical connection. A person may supply water to another property in the following circumstances:

A. With written authorization from the Director, and where such water service is through a physical connection in a manner deemed safe by the Director, and on a temporary basis to facilitate repairs on the water system, or to avoid an immediate health or safety risk; or

B. Where such water service is restricted to the manual watering of the landscaping of an adjacent property during:

1. periods of vacancy or
2. to avoid an immediate health or safety risk.

C. A person undertaking watering has the responsibility to obtain permission from the owner of the property being watered.
(Ord. 2008-03, Amended, 07/01/2008; Ord. 2004-07, Repealed and Replaced, 10/19/2004)

Section 13.08.190 Temporary discontinuance of service for repairs.

The department reserves the right to limit the amount of water to any consumer should occasion demand, and shall not be liable for any damage caused by temporary discontinuance of service while making repairs or replacements.
(Ord. 2004-07, Repealed and Replaced, 10/19/2004)

Chapter 13.10

WATER CONSERVATION

Sections:

13.10.010 Findings of facts.
13.10.020 Purpose.
13.10.030 Methods.
13.10.040 Implementation.
13.10.050 Notification.
13.10.060 Water use policy.
13.10.070 Additional requirements for commercial industrial uses.
13.10.080 Enforcement.
13.10.090 Penalties.
13.10.100 Waivers.
13.10.110 Waiver fee.
13.10.120 Content of application for a waiver.

Section 13.10.010 Findings of facts.

It is found and determined that:

A. Water is a most precious resource for the health and benefit of the citizens of Galt and an adequate supply of water for the present and future must be protected.

B. The central valley region in general and the city in particular are experiencing a decline in ground water supplies. This overdraft situation is the result of the removal of water from the ground through agricultural and domestic wells in quantities which are in excess of the quantity of water that is replenished into the ground water supply through natural processes.

C. An increase in demand for water supplies throughout the state and in Galt in particular can be expected as long as growth continues.

D. The waste of water is an unreasonable and nonbeneficial use of water and is a detriment to the maintenance of the necessary supply of water necessary for public health, welfare and safety.

E. Conservation of water will reduce water demand and will thus have a positive effect on the supply of water and at the same time, will have a positive effect on the maintenance and operation of the system of supply and on energy conservation. (Ord. 93-01 § 2 (part))

Section 13.10.020 Purpose.

It is the purpose of this chapter to promote the public health, welfare and safety through provisions designed to:

A. Encourage water conservation by the public and industry and by the various commercial uses;

B. Minimize or eliminate the waste of water through voluntary compliance and through increased rates or other punitive action;

C. Reduce the per capita water consumption in the city during the years of normal precipitation and during years of drought;

D. Protect and conserve the supply of water during any of several kinds of emergency or crisis. (Ord. 93-01 § 2 (part))

Section 13.10.030 Methods.

To accomplish the stated purposes, this chapter establishes:

A. A staged water use policy governing the use of water within the city based upon the adequacy or inadequacy of water supplies;

B. Regulations that specify the nonpermitted uses of water according to the state implemented;

C. Penalties for noncompliance;

D. Waivers from any or all requirements of this chapter in the case of hardship, overriding considerations of health or welfare, or otherwise, as specified. (Ord. 93-01 § 2 (part))

Section 13.10.040 Implementation.

The city manager shall establish the state of the water use policy which shall be in effect from time to time based upon recommendations of the city engineer. Such recommendation of the city engineer may be based upon, but shall not be limited to times of drought, prolonged power outages or the perception of such, natural disasters or water generation or transmission system failures. Such water use policy stage shall remain in full force and effect until subsequent action is taken by the city manager to upgrade or downgrade the stage as may be necessary or desirable. (Ord. 93-01 § 2 (part))

Section 13.10.050 Notification.

Upon determination of the water use policy stage and thereafter, any upgrade or downgrade of such stage, the city manager shall determine

the means by which the city shall notify residents. Notification may be achieved through newspaper, public notice, mailings, utility billings or by a combination of such or by other means as determined by the city manager. (Ord. 93-01 § 2 (part))

Section 13.10.060 Water use policy.

A. Stage 1 - Normal Water Supply.

1. The waste of water is prohibited. "Waste of water" under this section shall mean allowing water to escape from the water supply at the rate of one quart or more per hour from any leaky, worn or broken faucets, valves, pipes or other fixtures, or permitting water to run from any hose, hose nozzle, valve or sprinkler in a wasteful, useless or nonbeneficial manner.

2. Free flowing water hoses shall be prohibited except where used for filling troughs, pools, spas, ponds or similar uses. Automatic shutoff devices shall be used on all hoses for the purposes of watering lawns or gardens or for the washing of vehicles, boats, equipment, driveways, sidewalks, or similar uses.

3. All leaking water lines and/or faulty sprinkler systems must be repaired within five days. At the discretion of the city's public works department, and upon a showing or just cause by the use, the five-day limit may be extended. Any water line beyond and including the correction to the curb stop shall be the resident's responsibility for repair and replacement.

4. All pools, spas, ponds and ornamental fountains shall be equipped with a recirculating pump and shall be constructed in a leak-proof manner. Draining and refilling of such structure shall be allowed only for health, maintenance or structural considerations.

B. Stage 2 - Water Alert.

1. All requirements of stage 1 apply, and in addition, landscape and pasture irrigation shall be limited to a maximum of three days per week, when necessary, and shall be based on the following odd-even schedule:

a. Customers with street addresses ending with an even number may irrigate only on Wednesday and/or Friday and/or Sunday;

b. Customers with street addresses ending with an odd number may irrigate only on Tuesday and/or Thursday and/or Saturday;

c. No irrigation will be permitted on Mondays.

2. Draining and refilling of pools, spas and ponds shall be allowed for health, maintenance or structural considerations, after approval by the city engineer. Customer requests for approval must be substantiated in writing by a pool consultant or equivalent.

3. Restaurants shall serve water only upon specific request.

4. No washing of sidewalks, streets, driveways, parking lots, structures, or similar uses will be allowed except as necessary for health, sanitary or fire protection purposes.

5. Washing of vehicles, boats, equipment, etc. shall be accomplished under the following restrictions:

a. Water buckets shall be utilized;

b. Water hoses with automatic shutoff devices may be used for rinsing for a duration not to exceed three minutes.

C. Stage 3 - Water Warning.

1. All requirements of stage 1 and stage 2 apply, except that:

2. Watering lawns, flower beds, landscaping, and similar uses will be limited to two days per week with even addresses watering on Wednesdays and/or Sundays and odd addresses watering on Tuesdays and/or Saturdays.

3. The director of public works of the city shall take the following precautions:

a. Flushing of sewers or fire hydrants shall be limited to essential operations for the benefit of public health or welfare;

b. Construction water usage, such as dust control, trench jetting, and compaction will be permitted only under specific authorization of the director of public works;

c. On any construction site no water shall be used for the cleaning of vehicles, equipment or fixed works.

4. The washing of sidewalks, streets, driveways, parking lots, structures, or similar uses is prohibited except as authorized in writing by the city engineer.

D. Stage 4 - Water Crisis (Emergency).

1. All requirements of stage 1, stage 2 and stage 3 shall apply except that:

a. Landscaping and pasture irrigation with potable water is prohibited;

b. The washing of vehicles, boats, equipment, etc. is prohibited except at a commercial establishment that utilizes recycled or partially recycled water;

c. No potable water from the city's system shall be used to fill or refill any pools, spas or ponds, etc. Use of ornamental fountains is prohibited;

d. No potable water from the city's system shall be used for construction purposes. (Ord. 93-01 § 2 (part))

Section 13.10.070 Additional requirements for commercial industrial uses.

Due to the diversity of present and future commercial and industrial uses in the city and the water requirements pertaining thereto, the city manager is authorized to impose additional restrictions on water use, to prevent waste of water or the unreasonable nonbeneficial use of water, on a case by case basis to any specific business or industry. Such requirements shall be made in writing and thereafter shall remain in full force and effect within the provisions of this chapter until notice is given in writing to the contrary. (Ord. 93-01 § 2 (part))

Section 13.10.080 Enforcement.

All employees, permanent or temporary, or contractees or the city designated by the city manager or by the city manger's designee, are authorized to enforce the provisions of this chapter. (Ord. 93-01 § 2 (part))

Section 13.10.090 Penalties.

The penalties stated in this section are deemed to neither limit nor repeal any other powers granted under state or federal law or Chapter 21.01 of Title 21. Notice of each and all violations of this Chapter shall be given in writing to the occupant of the site of the violation, or to any person in control of such site, or posted on the site in a conspicuous location. Each day any violation of this Chapter is committed or permitted to continue shall constitute a separate offense and shall be punishable as such, except as otherwise indicated in this Chapter.

A. For stages 1 through 3 of water use policy, the penalties for violations within a twelve-month period will be as follows:

1. First offense. Warning;

2. Second offense. Twenty-five dollars added to water bill, to account for wasted water;

3. Third offense. Fifty dollars added to water bill, to account for wasted water;

4. Fourth offense.One hundred dollars added to water bill, to account for wasted water;

5. Fifth offense. Customer will be required to install a water meter at his/her own expense in addition to a one hundred dollar reconnection fee;

6. Additional offenses. One hundred dollars added to water bill, to account for wasted water, plus the installation of a flow restrictor at customer's expense.

B. For stage 4 of water use policy, the following penalties will be applied for violations within a twelve-month period:

1. First offense. Warning;

2. Second offense. One hundred dollars added to water bill, to account for wasted water;

3. Third offense. Two hundred dollars added to water bill, to account for wasted water;

4. Fourth offense. Customer will be required to install a water meter at his/her own expense in addition to a two hundred dollar reconnection fee;

5. Additional offenses. Same as for stages 1 to 3 except two hundred dollars.

(Ord. 2006-07, Amended, 06/06/2006; Ord. 93-01 § 2 (part))

Section 13.10.100 Waivers.

Waivers to the requirements of this chapter may be issued at the discretion of the city manager or his appointed representative but only when based upon such considerations as hardship, health or safety matters, unjustifiable repair costs, overall benefit to the public, protection of sensitive, threatened or endangered plant species or habitats, or compliance with other state, federal or local laws. Applications for a waiver, together with any fees required, shall be made on the form provided for such and delivered to the city. The existence of a pending application for waiver of the requirements of this chapter shall in no way waive or suspend compliance with such requirements. The issuance of a waiver shall not abrogate or nullify

previous offenses nor shall it be grounds for a reimbursement of fines as applied in accordance with this chapter. The issuance of a waiver shall in no way limit or nullify the requirements of this chapter as they may apply to areas, violation or offenses other than those waived by such waiver. (Ord. 93-01 § 2 (part))

Section 13.10.110 Waiver fee.

A. The city council may, by resolution, and from time to time, prescribe fees as part of the application for a waiver of the requirements of this chapter. Such fees shall be for the sole purpose of defraying costs incurred in the administration of this chapter.

B. All application fees for a waiver shall be paid at the time of and with the filing of the application with the city. No application shall be deemed valid or complete until all prescribed fees have been paid. Unless otherwise prescribed, fees shall not be refundable in whole or in part whether or not the waiver is issued or approval granted, nor if permittee ceases operating under the waiver in advance of expiration of the term thereof, if any. (Ord. 93-01 § 2 (part))

Section 13.10.120 Content of application for a waiver.

A. Application for a waiver pursuant to Section 13.10.100 shall consist of the following information:

1. Name, signature, address and phone number of applicant requesting waiver;

2. Reasons for requesting waiver to include, but not necessarily be limited to hardship, health or safety matters, unjustifiable repair costs, overall benefit to the public, protection of sensitive, threatened or endangered plant species or habitats or compliance with other state, federal or local laws, etc;

3. A description of the duration for which compliance will not be achieved;

4. Location of the nonconforming fixture or faucet.

B. As part of the application process, the city may request estimates of repair costs attached or other materials necessary to substantiate reasons given for an application for waiver. (Ord. 93-01 § 2 (part))

RESOLUTION NO. 2016-16

RESOLUTION NO. 2016-16

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF GALT, CALIFORNIA, ADOPTING REVISED WATER RATES

WHEREAS, in accordance with California Government Code section 54344, the City Council has the authority to prescribe, revise, and collect charges for the services, facilities, or water furnished by the enterprise; and

WHEREAS, in accordance with California Water Code section 527, the City is required to install water meters on all municipal and industrial service connections located within its service area on or before January 1, 2025; and

WHEREAS, the City has completed installation of water meters on all services that were not previously metered; and

WHEREAS, due to the installation of water meters, the City desired to evaluate the current rate structure to determine its sustainability and equity amongst all users; and

WHEREAS, a Water Rate Study was initiated and has identified that changes to the current rate structure are necessary in order to establish a new rate structure that is equitable amongst all users, and will not result in a loss of revenue when flat rate customers are transitioned to metered rates; and

WHEREAS, notice of the public hearing for the proposed water rates was mailed to each affected rate payer not less than 45 days prior to the public hearing, in compliance with California Constitution Article XIII D, "Property-Related Fees and Charges"; and

WHEREAS, a duly noticed public hearing on the proposed water meter installation fee was held by the City Council on January 19, 2016;

WHEREAS, at the conclusion of the public hearing, the City Clerk tabulated the number of written protests received and reported that there was not a majority protest of the proposed water rates by owners or authorized representatives of the identified and affected properties; and

WHEREAS, after hearing public testimony and staff's report and recommendations, the City Council has determined that the water rates are appropriate, lawful and fair, and should be adopted.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF GALT DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. Findings. After hearing testimony, considering the evidence offered, and duly deliberating the matters presented, the City Council finds and determines:

A. Pursuant to the authority of the California Government Code, the City owns, operates and maintains systems and facilities for the treatment and distribution of water.

B. The City Council is empowered to prescribe, revise, and collect charges for the services and facilities furnished by the City's water system.

C. State laws requires the City to install water meters on all municipal and industrial service connections located within its service area on or before January 1, 2025.

D. The proceedings related to the proposed water rates have been duly noticed in compliance with the Constitution of the State of California, and the California Government Code.

The water rates will not exceed the reasonable estimated costs of providing service, and is fairly imposed on those properties currently connected to the City water system.

Section 2. Adoption of Fee. The proposed water rates set forth in Exhibit A are hereby approved and adopted, and the City Council directs that such fees shall be effective on or after March 15, 2016. The City Council further authorizes the Finance Director to enact the new fee structure in accordance with the City's implementation plan timetable.

Section 3. Automatic Rate Increase. Pursuant to California Government Code section 53756, the City may adjust customer water rates and fees once a year over a five-year period to adjust for inflation. Customers will receive written notification no less than 30 days before the effective date of each annual adjustment informing them of the adjustment amount.

Beginning March 1, 2017, and each March 1st thereafter through 2020, the City may increase water rates by an amount that is equal to the annual percentage change in the Consumer Price Index for All Urban Consumers (CPI-U) for San Francisco-Oakland-San Jose, CA Area for the twelve-month period ending the immediately preceding October 31 (the "CPI Adjustment"). Notice of the CPI Adjustment shall be provided to all ratepayers at least thirty (30) days in advance of the increase in the rates. Should the CPI be insufficient to cover operating and capital costs, the utility will undergo a formal rate study process to determine revenue requirements. If the CPI adjustment for a particular year would result in the rates exceeding the cost of providing service, then the CPI adjustment for that year shall not be made.

Section 4. Effective Date. This resolution shall become effective immediately upon adoption.

The City Clerk shall certify the passage and adoption of this resolution and enter it into the book of original resolutions.

PASSED AND ADOPTED by the City Council of the City of Galt, California, this 15th day of March, 2016, upon a motion by Council Member Payne seconded by Council Member Heuer, by the following vote, to wit:

AYES:	Council Members:	Payne, Heuer, Powers
NOES:	Council Members:	Campion, Crews
ABSTAIN:	Council Members:	
ABSENT:	Council Members:	

MAYOR, City of Galt

ATTEST:

City Clerk, City of Galt

EXHIBIT A

PROPOSED MONTHLY WATER RATES			
Residential Flat Rate			
Customer Category		**Current Flat Rate**	**Proposed 2016 Rates**
Single Family Dwelling Unit (4 Units or Less)		$28.75	**Flat rate customers will be transitioned to metered rates (see below)**
Multi-Family Dwelling Units < 1,000 square feet		$21.52	
Mobile Homes < 1,000 square feet		$21.52	
Water Usage Charges			
User	**Measurement Unit**	**Current Rate**	**Proposed 2016 Rates**
Residential	per 100 cu.ft.*	$1.22	**$0.87**
Non-Residential	per 100 cu.ft.*	$1.22	**$0.87**
Irrigation **	per 100 cu.ft.*	$1.22	**$1.03**
Monthly Base Charges			
Meter Size	**Base Charge**	**Current Rate**	**Proposed 2016 Rates**
1" or smaller Meter	per month	$2.97	**$18.98**
1.5" Meter	per month	$5.54	**$31.58**
2" Meter	per month	$5.54	**$46.70**
3" Meter	per month	$8.27	**$94.58**
4" Meter	per month	$14.77	**$165.14**
6" Meter	per month	$42.16	**$333.98**
8" Meter	per month	$75.03	**$711.98**

*** 1 unit = 100 cu. ft. = 1 CCF = 748 gallons**

**** Applies only to irrigation systems that are isolated and separately metered**

Effective March 1, 2017, and annually thereafter through 2020, the approved water rates will be subject to an annual inflationary adjustment, based upon the percentage change in the Consumer Price Index (CPI).

Appendix I

COMPLETED UWMP CHECKLIST

Checklist Arranged by Subject

CWC Section	UWMP Requirement	Subject	Guidebook Location	UWMP Location *(Optional Column for Agency Use)*
10620(b)	Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.	Plan Preparation	Section 2.1	**Section 2.1**
10620(d)(2)	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.	Plan Preparation	Section 2.5.2	**Section 2.4.2**
10642	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.	Plan Preparation	Section 2.5.2	**Section 2.4.2**
10631(a)	Describe the water supplier service area.	System Description	Section 3.1	**Section 3.1**
10631(a)	Describe the climate of the service area of the supplier.	System Description	Section 3.3	**Section 3.3**
10631(a)	Provide population projections for 2020, 2025, 2030, and 2035.	System Description	Section 3.4	**Section 3.4**
10631(a)	Describe other demographic factors affecting the supplier's water management planning.	System Description	Section 3.4	**Section 3.4.1**
10631(a)	Indicate the current population of the service area.	System Description and Baselines and Targets	Sections 3.4 and 5.4	**Section 3.4 and 5.2**
10631(e)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System Water Use	Section 4.2	**Section 4.2**
10631(e)(3)(A)	Report the distribution system water loss for the most recent 12-month period available.	System Water Use	Section 4.3	**Section 4.3**
10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the supplier.	System Water Use	Section 4.5	**Section 4.5**
10608.20(b)	Retail suppliers shall adopt a 2020 water use target using one of four methods.	Baselines and Targets	Section 5.7 and App E	**Section 5.5**
10608.20(e)	Retail suppliers shall provide baseline daily per capita water use, urban water use target, interim urban water use target, and	Baselines and Targets	Chapter 5 and App E	**Chapter 5**

	compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.			
10608.22	Retail suppliers' per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use of the 5 year baseline. This does not apply if the suppliers base GPCD is at or below 100.	Baselines and Targets	Section 5.7.2	**Section 5.5.2**
10608.24(a)	Retail suppliers shall meet their interim target by December 31, 2015.	Baselines and Targets	Section 5.8 and App E	**Section 5.6**
10608.24(d)(2)	If the retail supplier adjusts its compliance GPCD using weather normalization, economic adjustment, or extraordinary events, it shall provide the basis for, and data supporting the adjustment.	Baselines and Targets	Section 5.8.2	**N/A (Section 5.6)**
10608.36	Wholesale suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their retail water suppliers achieve targeted water use reductions.	Baselines and Targets	Section 5.1	**N/A**
10608.40	Retail suppliers shall report on their progress in meeting their water use targets. The data shall be reported using a standardized form.	Baselines and Targets	Section 5.8 and App E	**Section 5.6**
10631(b)	Identify and quantify the existing and planned sources of water available for 2015, 2020, 2025, 2030, and 2035.	System Supplies	Chapter 6	**Chapter 6**
10631(b)	Indicate whether groundwater is an existing or planned source of water available to the supplier.	System Supplies	Section 6.2	**Section 6.2**
10631(b)(1)	Indicate whether a groundwater management plan has 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.	System Supplies	Section 6.2.2	**Section 6.2.2**
10631(b)(2)	Describe the groundwater basin.	System Supplies	Section 6.2.1	**Section 6.2.1**
10631(b)(2)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the supplier has the legal right to pump.	System Supplies	Section 6.2.2	**N/A (Section 6.2.1)**
10631(b)(2)	For unadjudicated basins, indicate whether or not the department has identified the basin as overdrafted, or projected to become overdrafted. Describe efforts by the supplier to eliminate the long-term overdraft condition.	System Supplies	Section 6.2.3	**Section 6.2.1, Section 8.9**
10631(b)(3)	Provide a detailed description and analysis of the location, amount, and sufficiency of	System Supplies	Section 6.2.4	**Section 6.2.4**

	groundwater pumped by the urban water supplier for the past five years			
10631(b)(4)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System Supplies	Sections 6.2 and 6.9	**Section 6.9**
10631(d)	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	System Supplies	Section 6.7	**Section 6.7**
10631(g)	Describe the expected future 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.	System Supplies	Section 6.8	**Section 6.8**
10631(h)	Describe desalinated water project opportunities for long-term supply.	System Supplies	Section 6.6	**Section 6.6**
10631(j)	Retail suppliers will include documentation that they have provided their wholesale supplier(s) – if any - with water use projections from that source.	System Supplies	Section 2.5.1	**N/A (Section 2.4.1)**
10631(j)	Wholesale suppliers will include documentation that they have provided their urban water suppliers with identification and quantification of the existing and planned sources of water available from the wholesale to the urban supplier during various water year types.	System Supplies	Section 2.5.1	**N/A**
10633	For wastewater and recycled water, coordinate with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.1	**Section 6.5.1**
10633(a)	Describe the wastewater collection and treatment systems in the supplier's service area. Include quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.	System Supplies (Recycled Water)	Section 6.5.2	**Section 6.5.2**
10633(b)	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.	System Supplies (Recycled Water)	Section 6.5.2.2	**Section 6.5.2.2**
10633(c)	Describe the recycled water currently being used in the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.3 and 6.5.4	**6.5.3**
10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System Supplies (Recycled Water)	Section 6.5.4	**Section 6.5.3**
10633(e)	Describe 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	System Supplies (Recycled Water)	Section 6.5.4	**Section 6.5.3, Section 6.9**

	of the actual use of recycled water in comparison to uses previously projected.			
10633(f)	Describe the actions 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.	System Supplies (Recycled Water)	Section 6.5.5	**Section 6.5.4**
10633(g)	Provide a plan for optimizing the use of recycled water in the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.5	**Section 6.5.1 and 6.5.4**
10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water Supply Reliability Assessment	Section 7.4	**Section 7.4**
10631(c)(1)	Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage.	Water Supply Reliability Assessment	Section 7.1	**Section 7.1**
10631(c)(1)	Provide data for an average water year, a single dry water year, and multiple dry water years.	Water Supply Reliability Assessment	Section 7.2	**Section 7.2**
10631(c)(2)	For any water source that may not be available at a consistent level of use, describe plans to supplement or replace that source.	Water Supply Reliability Assessment	Section 7.1	**Section 7.1**
10634	Provide information on the quality of existing sources of water available to the supplier and the manner in which water quality affects water management strategies and supply reliability.	Water Supply Reliability Assessment	Section 7.1	**Section 7.1**
10635(a)	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.	Water Supply Reliability Assessment	Section 7.3	**Section 7.3**
10632(a) and 10632(a)(1)	Provide an urban water shortage contingency analysis that specifies stages of action and an outline of specific water supply conditions at each stage.	Water Shortage Contingency Planning	Section 8.1	**Section 8.1**
10632(a)(2)	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.	Water Shortage Contingency Planning	Section 8.9	**Section 8.9**
10632(a)(3)	Identify actions to be undertaken by the urban water supplier in case of a catastrophic interruption of water supplies.	Water Shortage Contingency Planning	Section 8.8	**Section 8.8**
10632(a)(4)	Identify mandatory prohibitions against specific water use practices during water shortages.	Water Shortage Contingency Planning	Section 8.2	**Section 8.2**
10632(a)(5)	Specify consumption reduction methods in the most restrictive stages.	Water Shortage Contingency Planning	Section 8.4	**Section 8.4**

10632(a)(6)	Indicated penalties or charges for excessive use, where applicable.	Water Shortage Contingency Planning	Section 8.3	**Section 8.3**
10632(a)(7)	Provide an analysis of the impacts of each of the actions and conditions in the water shortage contingency analysis on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts.	Water Shortage Contingency Planning	Section 8.6	**Section 8.6**
10632(a)(8)	Provide a draft water shortage contingency resolution or ordinance.	Water Shortage Contingency Planning	Section 8.7	**Section 8.7**
10632(a)(9)	Indicate a mechanism for determining actual reductions in water use pursuant to the water shortage contingency analysis.	Water Shortage Contingency Planning	Section 8.5	**Section 8.5**
10631(f)(1)	Retail suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand Management Measures	Sections 9.2 and 9.3	**Chapter 9**
10631(f)(2)	Wholesale suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and supplier assistance program.	Demand Management Measures	Sections 9.1 and 9.3	**N/A**
10631(i)	CUWCC members may submit their 2013-2014 CUWCC BMP annual reports in lieu of, or in addition to, describing the DMM implementation in their UWMPs. This option is only allowable if the supplier has been found to be in full compliance with the CUWCC MOU.	Demand Management Measures	Section 9.5	**N/A**
10608.26(a)	Retail suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets.	Plan Adoption, Submittal, and Implementation	Section 10.3	**Section 10.3**
10621(b)	Notify, at least 60 days prior to the public hearing, 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.	Plan Adoption, Submittal, and Implementation	Section 10.2.1	**Section 10.2.1**
10621(d)	Each urban water supplier shall update and submit its 2015 plan to the department by July 1, 2016.	Plan Adoption, Submittal, and Implementation	Sections 10.3.1 and 10.4	**Section 10.4.1. (See Commitment to Distribute in Appendix A)**
10635(b)	Provide supporting documentation that Water Shortage Contingency 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 the plan to DWR.	Plan Adoption, Submittal, and Implementation	Section 10.4.4	**Section 10.4.4**

10642	Provide supporting documentation that the urban water supplier made the plan available for public inspection, published notice of the public hearing, and held a public hearing about the plan.	Plan Adoption, Submittal, and Implementation	Sections 10.2.2, 10.3, and 10.5	**Sections 10.2.2, 10.3, and 10.5**
10642	The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water.	Plan Adoption, Submittal, and Implementation	Sections 10.2.1	**Section 10.2.1.**
10642	Provide supporting documentation that the plan has been adopted as prepared or modified.	Plan Adoption, Submittal, and Implementation	Section 10.3.1	**Section 10.3.1**
10644(a)	Provide supporting documentation that the urban water supplier has submitted this UWMP to the California State Library.	Plan Adoption, Submittal, and Implementation	Section 10.4.3	**Section 10.4.3. (See Commitment to Distribute in Appendix A)**
10644(a)(1)	Provide supporting documentation that the urban water supplier has submitted this UWMP to any city or county within which the supplier provides water no later than 30 days after adoption.	Plan Adoption, Submittal, and Implementation	Section 10.4.4	**Section 10.4.4. (See Commitment to Distribute in Appendix A)**
10644(a)(2)	The plan, or amendments to the plan, submitted to the department shall be submitted electronically.	Plan Adoption, Submittal, and Implementation	Sections 10.4.1 and 10.4.2	**Section 10.4.2 and 10.6**
10645	Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Section 10.5	**Section 10.5**

CITY ADOPTION RESOLUTION

To be included in the Final UWMP.

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