

CITRUS HEIGHTS WATER DISTRICT

DISTRICT STAFF REPORT TO BOARD OF DIRECTORS MAY 10, 2016 REGULAR MEETING

SUBJECT : WATER AWARENESS POSTER CONTEST
 STATUS : Presentation Item
 REPORT DATE : May 1, 2016
 PREPARED BY : Rex W. Meurer, Water Efficiency Coordinator

OBJECTIVE:

Present awards to the winners of this year's Water Conservation Poster Contest conducted by Citrus Heights Water District (CHWD) and the San Juan Family of Agencies.

BACKGROUND AND ANALYSIS:

The District's water conservation staff, in conjunction with Orange Vale Water Company, Fair Oaks Water District and San Juan Water District has sponsored the twentieth annual Water Awareness Poster Contest. A total of 607 4th, 5th and 6th grade students at six elementary schools within the CHWD service area submitted posters based on this year's theme, "We Are Still In A Drought-How Can You Help Out?".

Each agency awards a first-place prize of \$100.00 and two runner-up prizes of \$50.00. In addition, each winning student's class receives an award of \$100.00 for the winning entry. The winning entries will also be featured in the 2016 Water Conservation Awareness Calendar. The Grand Prize Winner is featured on the cover and in the month of May, which represents Water Awareness Month. The Grand Prize Winner receives an additional \$100.00 check.

The winners for schools within the Citrus Heights Water District are:

First Place Winner: Kevin Vasquez, 6th Grade, Kingswood Elementary School
 Teacher: Robin Emmond

Runner-Up: Maya Taff, 5th Grade, Woodside School
 Teacher: Michael Cerecedes

Runner-Up: Eden Webb, 5th Grade, Oakview Elementary School
 Teacher: Kristie Hanson

The contest entries in the Citrus Heights Water District service area were judged by: Nick Lagura from the City of Citrus Heights staff; Rosa Umbach representing the Citrus Heights Chamber of Commerce; and Virgil Anderson from the Sunrise Recreation and Park District staff.

The winners and their families, teachers and friends have been invited to the Board of Directors meeting on May 10, 2016 to receive their awards and recognition for their efforts.

CITRUS HEIGHTS WATER DISTRICT

DISTRICT STAFF REPORT TO BOARD OF DIRECTORS MAY 10, 2016 REGULAR MEETING

SUBJECT : PREPARATION OF THE 2015 URBAN WATER MANAGEMENT PLAN
STATUS : Discussion Item
REPORT DATE : May 2, 2016
PREPARED BY : Hilary M. Straus, Assistant General Manager
Rex W. Meurer, Water Efficiency Coordinator

OBJECTIVE:

Present for review, discussion and comments the DRAFT 2015 Urban Water Management Plan (UWMP) (Attachment 1) being presented by the J. Crowley Group, Inc.

BACKGROUND AND ANALYSIS:

The Urban Water Management Act (Act) became part of the California Water Code with the passage of Assembly Bill 797 during the 1983-1984 regular session of the California Legislature. The California Water Code requires every urban water supplier providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually to adopt and submit an Urban Water Management Plan (UWMP) every five years to the California Department of Water Resources (DWR). The specific planning requirements are in the California Water Code Division 6, Part 2.6 Urban Water Management Planning. Every five years since 1990, the District has produced an Urban Water Management Plan.

The UWMP is widely considered to be a water agency's most important public water planning document, and provides comprehensive information on the agency's water supply, reliability planning, use of water by customer types, water demand management and other information. The District's most recent five-year update was adopted by the Board in June 2011. CHWD is required to submit an updated UWMP to the State by July 1, 2016.

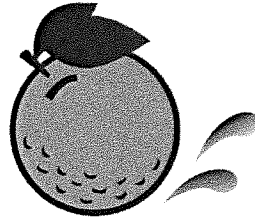
Key dates in the project schedule include tonight's Study Session with the Board of Directors, at which time the Report will be presented to the Board for review, questions and comments. Thereafter, at the June 14, 2016 Board meeting, a revised final UWMP will be presented to the Board at a Public Hearing for consideration and adoption.

RECOMMENDED ACTION:

Provide comments on the DRAFT 2015 UWMP accompanying this report and call for a Public Hearing for consideration of adoption of the 2015 UWMP at the June 14th Board meeting.

ATTACHMENT 1
2015 Urban Water Management Plan

Citrus Heights Water District
2015 Urban Water Management Plan



**CITRUS
HEIGHTS
WATER
DISTRICT**

May 2016

Board Workshop DRAFT

**J. CROWLEY GROUP
WATER RESOURCES PLANNING AND POLICY**

Table of Contents

1	INTRODUCTION	1
2	PLAN PREPARATION	1
2.1	COORDINATION AND NOTIFICATION	2
2.2	WATER FORUM	2
3	SYSTEM DESCRIPTION	4
3.1	SERVICE AREA DESCRIPTION	4
3.2	POPULATION	5
4	SYSTEM WATER USE	6
4.1	CURRENT AND PROJECTED WATER DEMANDS	6
4.2	WATER USE FOR LOW INCOME HOUSEHOLDS	8
5	BASELINE AND TARGETS	9
5.1	2020 BASELINE DEMAND AND TARGET	9
5.2	SBX 7 TABLES AND METHODOLOGY	10
6	WATER SUPPLIES	11
6.1	PURCHASED SURFACE WATER	11
6.2	GROUNDWATER	11
6.2.1	<i>Basin Description</i>	11
6.2.2	<i>Groundwater Management</i>	12
6.2.3	<i>Overdraft Conditions</i>	13
6.2.4	<i>Historical Pumping</i>	13
6.3	WASTEWATER AND RECYCLED WATER	13
6.3.1	<i>Wastewater Collection, Treatment, and Disposal</i>	13
6.3.2	<i>Actions to Encourage and Optimize Future Recycled Water Use</i>	14
6.4	DESALINATED WATER OPPORTUNITIES	15
6.5	EXCHANGES OR TRANSFERS	15
6.6	EMERGENCY INTERTIES	16
6.7	FUTURE WATER SUPPLY PROJECTS	16
6.8	SUMMARY OF EXISTING AND PLANNED SOURCES OF WATER	17
7	WATER SUPPLY RELIABILITY ASSESSMENT	19
7.1	CONSTRAINTS ON WATER SOURCES	19
7.2	RELIABILITY BY TYPE OF YEAR	19
7.3	SUPPLY AND DEMAND ASSESSMENT	20
8	WATER SHORTAGE CONTINGENCY PLANNING	23
8.1	STAGES OF ACTIONS	23
8.2	PROHIBITION ON END USES	23
8.3	PENALTIES, CHARGES, OTHER ENFORCEMENT OF PROHIBITIONS	25
8.4	CONSUMPTION REDUCTION METHODS	26
8.5	DETERMINING WATER SHORTAGE REDUCTIONS	26
8.6	REVENUE AND EXPENDITURE IMPACTS	26
8.7	RESOLUTION OR ORDINANCE	27
8.8	CATASTROPHIC SUPPLY INTERRUPTION	27
8.9	MINIMUM SUPPLY NEXT THREE YEARS	27

9 CONSERVATION AND DEMAND MANAGEMENT 28

10 PLAN ADOPTION, SUBMITTAL, AND IMPLEMENTATION 29

 10.1 NOTICE OF PUBLIC HEARING 29

 10.2 PUBLIC HEARING AND ADOPTION..... 29

 10.3 PLAN SUBMITTAL 29

 10.4 IMPLEMENTATION..... 30

Appendix List

- Appendix A – DWR SBX7 Tables
- Appendix B – Consumer Confidence Report
- Appendix C – Citrus Heights Water District Water Shortage Conservation Plan
- Appendix D - 2015 Drought Rate Structure
- Appendix E – CUWCC Coverage Reports
- Appendix F – 60-Day Notification
- Appendix G – Public Hearing Notification
- Appendix H – Adoption Resolution

1 Introduction

The Urban Water Management Act (Act) became part of the California Water Code with the passage of Assembly Bill 797 during the 1983-1984 regular session of the California Legislature. The California Water Code requires every urban water supplier providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually to adopt and submit an Urban Water Management Plan (UWMP) every five years to the California Department of Water Resources (DWR). The specific planning requirements are in the California Water Code Division 6, Part 2.6 Urban Water Management Planning.

Subsequent legislation has been passed that updates and provides for additional requirements for UWMPs and water management. In particular, SB 7X 7 Water Conservation, requires the state to achieve a 20 percent reduction in urban per capita water use by December 31, 2020, known as 20x2020. 20x2020 requirements are incorporated into the 2015 UWMP requirements. In summary, the UWMP must include the baseline demand analysis, water use target analysis use for 2015 and 2020, and present a compliance plan to achieve the target demand reductions in the UWMP.

The core requirements for the UWMP include:

- A description of the water service area.
- A description of the existing and planned supply sources.
- Estimates of past, present, and projected water use.
- 20x2020 analysis and target compliance.
- A description of water conservation Demand Management Measures (DMMs) already in place and planned, and other conservation measures.
- A description of the Water Shortage Contingency Plan.

The 2015 UWMP must submit data in specific tables to the DWR. DWR has provided these tables, and this UWMP utilizes the provided tables without changes to format or organization. The Citrus Heights Water District (CHWD) 2015 UWMP presents each required element per the Department of Water Resources (DWR) 2015 Urban Water Management Plan Guidelines.

2 Plan Preparation

CHWD provides potable water service to over 3,000 connections per year, and over 3,000 AFY and is therefore required to complete the UWMP process. Tables 2-1 through 2-4 lists the UWMP background information as required by DWR.

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
3410006	Citrus Heights Water District	19,785	9,974
TOTAL		19,785	9,974

Table 2-2: Plan Identification (Select One)	
<input checked="" type="checkbox"/>	Individual UWMP
<input type="checkbox"/>	Regional UWMP (RUWMP)

Table 2-3: Agency Identification	
Type of Agency (select one or both)	
<input type="checkbox"/>	Agency is a wholesaler
<input checked="" type="checkbox"/>	Agency is a retailer
Fiscal or Calendar Year (select one)	
<input checked="" type="checkbox"/>	UWMP Tables Are in Calendar Years
<input type="checkbox"/>	UWMP Tables Are in Fiscal Years
Units of Measure Used in UWMP (select from Drop down)	
Unit	Acre feet

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 <i>(Add additional rows as needed)</i>
San Juan Water District

2.1 Coordination and Notification

The Sacramento area water agencies have developed a proactive approach to planning and managing water resources throughout the area. The District is a member and actively participates in the two main regional water supplier organizations, Regional Water Authority (RWA) and the Sacramento Groundwater Authority (SGA). The RWA consists of most of the region's water agencies and focuses efforts on regional supply planning and representation efforts regarding state-wide water issues. The SGA focuses primarily on the area's groundwater basin and helps support proactive management and monitoring of the basin to maintain sustainability. Many of the programs and efforts described within this UWMP that support the regional water supply needs are coordinated through RWA, SGA, and individual water purveyors.

CHWD receives surface supply water from the San Juan Water District (SJWD) and together with the other Wholesale Customer Agencies (WCA), routinely coordinate supply planning and other issues. Per the Guideline requirements, CHWD provided 20-year projections for service area population and service area demands.

2.2 Water Forum

The Water Forum Agreement (WFA) was developed by a diverse group of business, agricultural, environmental, local government, and water agency leaders. The purpose of the WFA is to fulfill two co-equal goals:

- Provide a reliable and safe water supply for the region's economic health and planned development to the year 2030; and
- Preserve the fishery, wildlife, recreational, and aesthetic values of the lower American River.

The WFA provides seven major elements that guide water resources management.

1. Increased surface water diversions
2. Actions to meet customers needs while reducing diversion impacts in drier years
3. An improved pattern of fishery flow releases from Folsom Reservoir
4. Lower American River Habitat Management Element which also addresses recreation on the lower American River
5. Water conservation
6. Groundwater management
7. Water Forum successor effort

The WFA impacts surface water availability to the region during certain dry years. Depending on the inflow of water into Folsom Reservoir, water agencies are expected to curtail surface water diversions. The WFA envisions that water agencies will meet

customer demands during the dry year cutback's through a mix of conjunctive use and conservation programs to reduce customer demands.

The CHWD is a signatory to the WFA and participates in conjunctive use planning efforts through the Regional Water Authority and the Sacramento Groundwater Authority in efforts to implement the seven major elements of the WFA. The District is also required to implement conservation programs per the WFA purveyor-specific agreement. The entire Water Forum Agreement is available at www.waterforum.org.

3 System Description

The Citrus Heights Water District (CHWD) is located in the northeast portion of Sacramento County and south Placer County, California, approximately 20 miles northeast of downtown Sacramento. The District was formed on October 25, 1920 under Division 11, the Irrigation District Act of the State of California Water Code. A three member Board of Directors elected at large from divisions within the District governs the District.

3.1 Service Area Description

CHWD provides water service to portions of the Cities of Citrus Heights and Roseville, and portions of the unincorporated communities of Orangevale, Fair Oaks, Carmichael and a portion of unincorporated Placer County, as shown in Figure 2-1. The service area covers approximately 7,780 acres in Sacramento and Placer counties. Only a small portion of the District’s service area, approximately 140 acres, is located in Placer County.

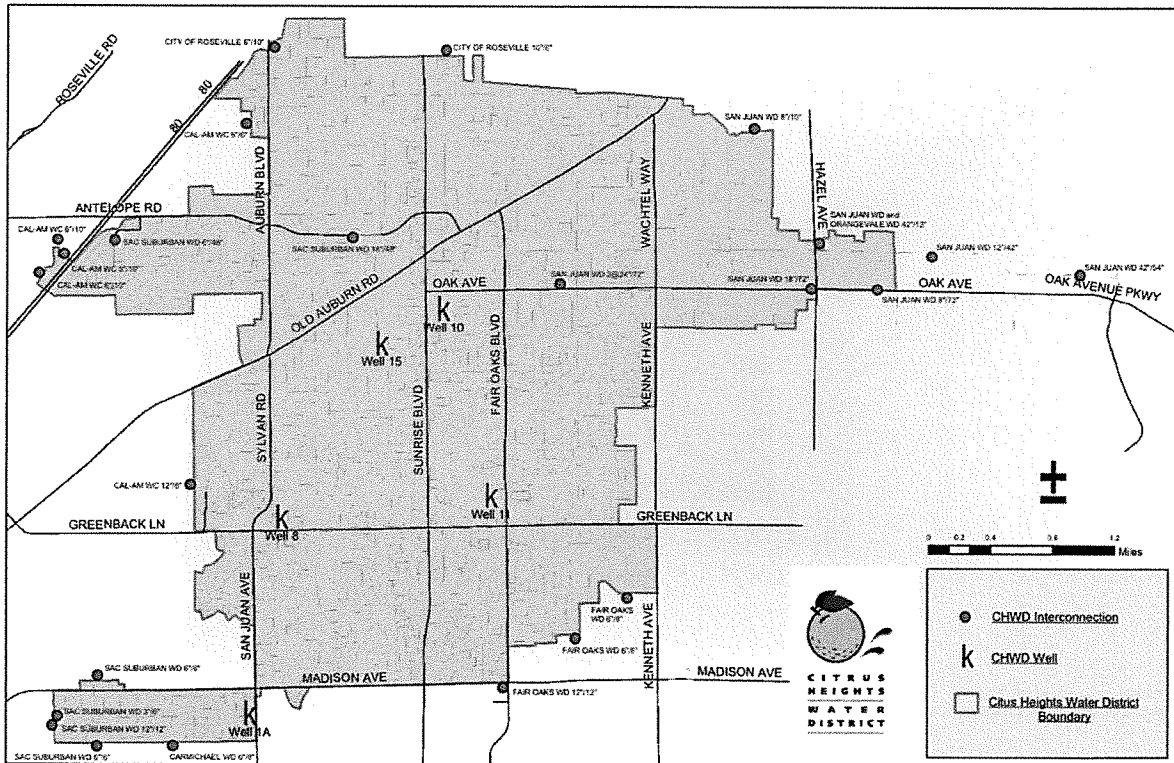


Figure 2-1. Service Area

The District initially used American River surface water supply from the North Fork Ditch Company to serve its customers. The customer base was initially comprised of

small family farms and limited urban areas. Concurrently with the completion of Folsom Dam in 1956, the San Juan (Suburban) Water District (SJWD) was formed and acquired the facilities and water rights of the North Fork Ditch Company. SJWD has also contracted for additional water from the United States Bureau of Reclamation (USBR). Citrus Heights Water District now receives surface water from the American River through the San Juan Water District. Along with CHWD, SJWD provides treated surface water to Fair Oaks Water District, Orange Vale Water Company, portions of the City of Folsom, and SJWD's own retail service area. These agencies are collectively referred to as the SJWD Family of Agencies. SJWD also provides treated surface water to Sacramento Suburban Water District and the City of Roseville. CHWD continues to supplement its surface water supply with groundwater to meet peaking, pressure, shortage, and emergency demands.

In the early years of the District, residential and agricultural growth was nominal. Since then, urban development has flourished to such a degree that presently there is no significant agricultural water use within the District. The District now serves a predominantly residential customer base, with a 2015 residential demand equal to 83 percent of its total annual demand of 9,264 AFY. There were a total of 19,785 customer connections in 2015.

The service area has cool, rainy winters, and hot, dry summers. The monthly temperature in the Sacramento area ranges from an average low of 39.5 to an average high of 91.5 degrees Fahrenheit (Western Regional Climate Center). In the past, extreme conditions have been recorded at 17 degrees Fahrenheit for the lowest temperature and 114 degrees Fahrenheit for the highest. The historical annual mean precipitation is 18.2 inches with a monthly precipitation as high as 14.2 inches and as low as 0 inches. The average evapotranspiration rate (ET_o) is 50.5 inches.

3.2 Population

The CHWD service area boundary does not match up with census tract or block group zones. Existing service population is therefore estimated using the DWR Population Tool as described in Chapter 5. Projected population assumes a relatively low connection growth rate of 0.5 percent and the current capita per connection value of 3.5 as discussed in Chapter 4. Population projections are summarized in Table 3-1.

Population Served	2015	2020	2025	2030	2035	2040(opt)
	65,093	66,720	68,348	69,975	71,602	

4 System Water Use

This section presents past and projected water demands. CHWD serves an older, established area where future growth is expected to be slow as the area nears buildout.

4.1 Current and Projected Water Demands

Water demands are projected using unit water demand factors and projected connections. The unit water demand factors are reduced over time to account for implementation of the 20x2020 compliance plan as well as new building codes.

2015 water demands per category are presented in Table 4-1. All customers are metered and there are no un-metered connections. As the tables indicate, the majority of the District's customers are residential. The "Other" category includes accounts such as construction meters, vacant accounts, and vacant land. Non Revenue Water is all water that is not billed, such as fire fighting, flushing, leaks, water theft, or meter inaccuracies.

Table 4-1 Retail: Demands for Potable and Raw Water - Actual			
Use Type (Add additional rows as needed)	2015 Actual		
<i>Use Drop down list</i> <i>May select each use multiple times</i> <i>These are the only Use Types that will be recognized by the WUEdata online submittal tool</i>	Additional Description (as needed)	Level of Treatment When Delivered <i>Drop down list</i>	Volume
Single Family		Drinking Water	5,779
Multi-Family		Drinking Water	1,876
Commercial		Drinking Water	779
Institutional/Governmental		Drinking Water	21
Industrial		Drinking Water	188
Landscape		Drinking Water	603
Other	temp., construction, etc.	Drinking Water	17
Other	all non-revenue water	Drinking Water	711
TOTAL			9,974

Water demands are projected using unit water demand factors and projected connections. The CHWD service area is included in a SACOG area that mainly includes Citrus Heights, Orangevale, Fair Oaks, Carmichael, and Arden Arcade. SACOG projected a range of growth for this area from 3.8-15.1 percent from 2000 to 2050. However, these projections were made prior to the economic climate of the last few years. In order to achieve growth rates in the SACOG range, a significant change in housing density would be required. CHWD does not project such a change, and believes the majority of their customer base will continue to be a mix of traditional density single-family residential parcels and multi-family units. Growth in customer connections has averaged

approximately 0.5 percent. This growth rate is applied to the future connection projections.

Although overall water demands have decreased over the last five years, many factors may have caused this decrease. For 2015 demands, the State-mandated reductions are assumed to be a major factor. Other factors such as economic conditions, water conservation programs, hydrologic and climate factors, and rate increases all likely contributed to the reduced unit demand factors. As these parameters likely reduced demands, it is expected that the removal of some of these parameters will also influence demands. For conservative planning purposes, it is assumed the unit water demands will increase in the short term as economic conditions improve, hydrologic conditions deliver more rain and snow, and drought messaging is reduced. However, the District's conservation program and other demand management efforts will work to reduce the demands so that the 2015 and 2020 targets will still be met. The resulting water demand projections per customer class are summarized in Table 4-2. Non-revenue water is assumed to remain constant at nine percent of total demands.

Table 4-2 Retail: Demands for Potable and Raw Water - Projected						
Use Type <i>(Add additional rows as needed)</i>	Additional Description	Projected Water Use				
		<i>Report To the Extent that Records are Available</i>				
<i>Use Drop down list</i> <i>May select each use multiple times</i> <i>These are the only Use Types that will be recognized by the WUEdata online submittal tool</i>		2020	2025	2030	2035	2040-opt
Single Family		10,090	10,336	10,583	10,829	
Multi-Family		2,695	2,761	2,826	2,892	
Commercial		1,031	1,056	1,081	1,107	
Institutional/Governmental		268	274	281	287	
Industrial		344	353	361	370	
Landscape		994	1,019	1,043	1,067	
Other	temp., construction, etc.	20	20	20	20	
Other	all non-revenue water	1,527	1,564	1,602	1,639	
TOTAL		16,969	17,382	17,796	18,209	0

Table 4-3 summarizes the current and projected demands. There are no recycled water demands as discussed in Chapter 6. 2015 water loss is calculated per the DWR/AWWA water audit methodology and summarized in Table 4-4. CHWD maintains 20 interconnections with its neighboring water agencies. However, all the connections are used for emergency supply and short-term shortage conditions. CHWD has not, and does not plan to sell water through transfers or exchanges at this time.

Table 4-3 Retail: Total Water Demands						
	2015	2020	2025	2030	2035	2040 (opt)
Potable and Raw Water <i>From Tables 4-1 and 4-2</i>	9,974	16,970	17,383	17,797	18,210	0
Recycled Water Demand <i>From Table 6-4</i>	0	0	0	0	0	0
TOTAL WATER DEMAND	9,974	16,970	17,383	17,797	18,210	0

Table 4-4 Retail: 12 Month Water Loss Audit Reporting	
Reporting Period Start Date (mm/yyyy)	Volume of Water Loss
01/2015	345

4.2 Water Use for Low Income Households

The legislation requires an agency to project water demands for low-income housing needs. Although CHWD service area does not match the City of Citrus Heights boundary, CHWD’s service area encompasses about two-thirds of the geographic area of the City of Citrus Height, and this analysis assumes the City’s housing element is representative of the CHWD service area. The City of Citrus Heights developed the housing element of their general plan in 2009. The Housing element identified the City’s portion of the regional housing need for very low and low/medium income household housing needs. The 2009 projections for very low and low/medium housing needs are 108 units. Water demands for these units assume that all units are single-family units. Inclusion of these demands and unit demand factors is summarized in Table 4-5.

Table 4-5 Retail Only: Inclusion in Water Use Projections	
Are Future Water Savings Included in Projections? <i>(Refer to Appendix K of UWMP Guidebook) Drop down list (y/n)</i>	Yes
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.	Section 4.1
Are Lower Income Residential Demands Included In Projections? <i>Drop down list (y/n)</i>	Yes

5 Baseline and Targets

State Law requires that urban water agencies reduce demand 20 percent by 2020. DWR has incorporated these requirements into the UWMP requirements. The required demand reduction is based on an agency’s gallons per capita per day (gpcd). Specific methodologies for estimation and analysis of population and demands to determine gpcd targets are provided in the UWMP Guidebook and Appendices.

5.1 2020 Baseline Demand and Target

The DWR UWMP Guidebook methodologies for calculating baseline and reduction targets are used to update the baseline and targets from the 2010 UWMP. The detailed calculations and methodologies are presented in below in Appendix A. Results are summarized in Tables 5-1 and 5-2 per UWMP requirements. As shown in the tables, CHWD is in compliance with the 2015 target.

Table 5-1 Baselines and Targets Summary <i>Retail Agency or Regional Alliance Only</i>					
Baseline Period	Start Year	End Year	Average Baseline GPCD*	2015 Interim Target *	Confirmed 2020 Target*
10-15 year	1995	2004	286	257	229
5 Year	2003	2007	258		

*All values are in Gallons per Capita per Day (GPCD)

Table 5-2: 2015 Compliance <i>Retail Agency or Regional Alliance Only*</i>									
Actual 2015 GPCD	2015 Interim Target GPCD	Optional Adjustments to 2015 GPCD Enter "0" for adjustments not used From Methodology 8					Adjusted 2015 GPCD	2015 GPCD <i>(Adjusted if applicable)</i>	Did Supplier Achieve Targeted Reduction for 2015? Y/N
		Extraordinary Events	Economic Adjustment	Weather Normalization	TOTAL Adjustments				
137	257	0	0	0	0	137	137	Yes	

*All values are in Gallons per Capita per Day (GPCD)

5.2 SBX 7 Tables and Methodology

The 20x2020 process requires that a baseline demand be calculated from which target water demands are determined. The baseline demand is taken as the 10-year average gallon per day per capita, ending no earlier 2004. The baseline demand calculation is based on total supply into the system, and estimated service population for each year. The 2020 goal must be no more than 95 percent of a five-year gpcd average ending no earlier than 2007. The baseline and target calculation methodologies are presented in Appendix A. These tables will also be submitted to DWR per the UWMP Requirements. Resulting targets and compliance are summarized above in Tables 5-1 and 5-2.

6 Water Supplies

CHWD uses both its surface water and groundwater to supply its customers. The District purchases surface water from the San Juan Water District (SJWD). Groundwater is obtained from the District's five active wells. This chapter presents the supply analysis and discussion.

6.1 Purchased Surface Water

CHWD purchases surface water from the SJWD. SJWD obtains its surface water through a combination of rights and contracts totaling 82,200 acre-feet per year. The specifics and reliability of each right and contract is presented in SJWD's UWMP and summarized in Chapter 7. All of the surface water supplies are withdrawn from Folsom Lake into SJWD's water treatment plant.

CHWD maintains a wholesale contract with SJWD to supply surface water, as does SJWD with all the Wholesale Customer Agencies (WCA). The wholesale contract does not include a volume amount; rather it states that SJWD will provide CHWD the supply it needs. The other WCA contracts also include the same language. CHWD projects that during normal supply years, it will use approximately 900 AF of groundwater (discussed below), and rely on surface water to meet the majority of its customer demands.

CHWD maintains two connections with SJWD to receive its water supply, one on the 42-inch section of the transmission line, and one on the 72-inch section of the transmission line. Barring failure of these connections, there are no physical constraints to obtaining the required SJWD supply. The SJWD UWMP addresses any restraints within SJWD's facilities to diverting, treating, and delivering the necessary supplies to CHWD.

6.2 Groundwater

The groundwater basin underlying the District is the North American Sub-basin, part of the larger Sacramento Valley groundwater basin. California Department of Water Resources California's Groundwater Update 2003, Bulletin 118, identifies the basin as 5-21.64.

6.2.1 Basin Description

Water bearing formations beneath the District occur in two major strata. The upper water-bearing units include the geologic formations of the Victor, Fair Oaks, and Laguna Formations and are typically unconfined. The lower water-bearing unit consists primarily of the Mehrten Formation, which exhibits confined conditions. The Mehrten Formation is the most productive fresh water-bearing unit in the eastern Sacramento Valley, though some of the permeable layers of the Fair Oaks Formation produce moderate amounts of water. Much of the recharge of these aquifer systems comes from the Sacramento and American Rivers and their tributaries where gravel deposits exist. To a lesser extent, aquifer recharge also occurs where the Merhten Formation reaches the surface in the foothills in eastern Sacramento and western El Dorado County.

Supply wells in the Sacramento Region draw water primarily from the Mehrten and Fair Oaks formations and typically produce 500-1,500 gpm of good to excellent quality water. There are areas throughout the basin that exhibit elevated levels of iron, manganese, and arsenic. CHWD's wells do not exhibit any water quality issues that impact its use as potable water supply or require treatment prior to service.

The groundwater basin does contain three significant major groundwater contamination areas. The United Pacific Railroad plume, located in Roseville, and the McClellan Air Force Base plume, located northwest of the District, are both down gradient and not expected to impact the District's groundwater quality. A groundwater contamination plume attributed to Aerojet historic operations was first detected in groundwater south of the American River in 1979. Since that time, Aerojet has installed groundwater treatment facilities and has conducted other efforts to treat and control the plume migration. However, a plume was detected north of the American River near Fair Oaks in 2000, and another plume was detected north of the American River in 2005 near Ancil Hoffman Park in Carmichael. Additional monitoring wells and pump-and-treat facilities have been installed to monitor and treat the plume.

Total usable capacity and safe yield of the basin have not yet been determined. Usable capacity is assumed to be the yield calculated in the Department of Water Resources' American Basin Conjunctive Use Project Feasibility Study (1997). The study assumed a specific yield of 7 percent and an assumed thickness of 200 feet. Applying these assumptions to the total basin area results in a usable capacity of 70.2 million acre-feet. The Sacramento Groundwater Authority has recently adopted a groundwater accounting framework. The framework allows for SGA-member agencies to account for groundwater banking and conjunctive use efforts, and includes consideration and monitoring of groundwater levels. This information will be used to proactively manage the basin's storage capacity and available yield to support the conjunctive use strategy.

6.2.2 Groundwater Management

Up until the early 2000's, groundwater levels had been generally declining in Sacramento County for the last 50 years, with many areas declining at a rate of 1.5 to 2.0 feet per year. A groundwater depression that was evident in 1968 significantly expanded and deepened in 1996. The region responded in part through the development of the Sacramento Groundwater Authority (SGA) Groundwater Management Plan and development of multiple conjunctive use projects. As a result of these efforts, SGA reports that groundwater elevation levels have stabilized, or in some cases increased. SGA is also the CASGEM reporting agency for the basin conditions. CHWD is a member of SGA and, through SGA, will continue to track contamination threats and participate in conjunctive use programs or other projects to minimize the risk of the contamination plumes. The comprehensive SGA conjunctive use program and other strategies to mitigate groundwater overdraft on a regional basis are included in the SGA Groundwater Management Plan at <http://www.sgah2o.org/sga/programs/groundwater>.

6.2.3 Overdraft Conditions

Bulletin 118 does not specifically identify the sub-basin as being in overdraft, but does identify the previous issues with groundwater levels. Groundwater management efforts by the region through SGA and other partnerships have improved and stabilized basin levels.

6.2.4 Historical Pumping

CHWD maintains five operating wells with a projected total yield of approximately 5,000 AFY based on approximately seven months operation during the dry season. Well production rates vary from 800 to 1,600 gallons per minute. CHWD cycles its wells to maintain operational capabilities and to supplement the surface supply. Over the last five years, this “maintenance” groundwater production has averaged approximately 850 acre-feet per year. Past groundwater usage from 2011-2015 is presented in Table 6-1. There have been no issues that affect groundwater supply pumping over the last five years.

Groundwater Type <i>Drop Down List</i> <i>May use each category multiple times</i>	Location or Basin Name	2011	2012	2013	2014	2015
Alluvial Basin	North American Subbasin	962	587	465	1,930	841
TOTAL		962	587	465	1,930	841

6.3 Wastewater and Recycled Water

CHWD does not use recycled water nor is recycled water available in the District’s service area. Accordingly, this section presents the required information per the Guidelines. DWR UWMP Tables 6-3, 6-4, and 6-5 are not applicable and not presented in this UWMP.

6.3.1 Wastewater Collection, Treatment, and Disposal

The Sacramento Regional County Sanitation District (SRCSD), and its companion agency, the Sacramento Area Sewer District, conducts wastewater collection and treatment for the CHWD service area. Wastewater is collected and conveyed approximately 20 miles to the south, near Elk Grove, to the regional wastewater treatment plant.

The regional plant serves most of the entire Sacramento metropolitan area. The treatment plant receives and treats approximately 150 million gallons per day (mgd). The current capacity of the plant to treat dry weather flows is approximately 181 mgd. The treatment plant produces a disinfected secondary effluent that is discharged into the Sacramento River below Freeport. The principal treatment processes are primary sedimentation, pure-oxygen activated sludge, secondary sedimentation, and chlorination/de-chlorination. SRCSD does currently produce 1,000-1,700 acre-feet per year of Title 22 recycled water.

The recycled water is mostly used for irrigation demand adjacent at a newer development community near the treatment plant in Elk Grove. There are no recycled water facilities within the CHWD service area.

Estimated wastewater generation is based on the SRCSD unit wastewater generation factor of 310 gpd per equivalent dwelling unit (Sacramento Regional Wastewater Treatment Plan 2020 Master Plan, 2001). Estimated wastewater collected within the CHWD service area is presented in Table 6-2. No wastewater is treated or discharged within the service area.

Table 6-2 Retail: Wastewater Collected Within Service Area in 2015						
Wastewater Collection			Recipient of Collected Wastewater			
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? <i>Drop Down List</i>	Volume of Wastewater Collected in 2015	Name of Wastewater Treatment Agency Receiving Collected Wastewater	Treatment Plant Name	Is WWTP Located Within UWMP Area? <i>Drop Down List</i>	Is WWTP Operation Contracted to a Third Party? <i>(optional)</i> <i>Drop Down List</i>
Sacramento Area Sewer District	<i>Estimated</i>	6,850	<i>Sacramento County Regional Sanitation District</i>	Regional San	<i>No</i>	
Total Wastewater Collected from Service Area in 2015:		6,850				
NOTES: volume estimated based on Sac County unit factor of 310 gpd/connection.						

6.3.2 Actions to Encourage and Optimize Future Recycled Water Use

SRCSD developed a recycled water opportunities plan in 2007 (Recycled Water Plan). The Recycled Water Plan divided its service area into specific opportunity areas. Each opportunity area was evaluated for recycled water use potential based on many factors such as demand, supply availability, infrastructure requirements, local support, costs, and others. The process utilized a Water Recycling Advisory Committee that provided a broad stakeholder view and input to the process. The Committee consisted of representatives from cities, water agencies, environmental groups, the State, and business groups. CHWD was represented on the Committee by the Regional Water Authority.

The CHWD service area is located in the Target Area 3 opportunity area identified in the Recycled Water Plan. Based on the analysis and alternative screening procedures, no potential recycled water applications were identified in the CHWD service area. One of the main reasons for the findings is relatively small potential demands that would require extensive infrastructure development, including a new local treatment plant to provide a supply source. Table 6-6 summarizes these planning efforts.

The SRCSD Recycled Water Plan concluded there were no viable opportunities for recycled water use in the CHWD service area. However, in the future, basic planning assumptions may change or new issues arise that could result in the identification and development of feasible recycled water programs. CHWD will continue to monitor its water resources issues, and identify recycled water programs should the opportunity arise.

Future recycled water use will be part of a regional solution that involves the many entities involved in the SRCSD Water Recycling Plan. Incentives and methods to encourage recycled water use will depend on SRCSD and its regional partners identifying and developing a recycled water program for the north county area. Potential recycled water supply could also come from remediated groundwater if a plume is detected in the service area. CHWD will continue to follow recycled water use issues and will provide input as necessary. When a feasible program is identified through cooperation with the regional efforts, CHWD will develop incentives and methods to encourage recycled water use within its service area. Table 6-6 lists the current methods and programs to encourage recycled water use as zero as there is no recycled water supply.

Table 6-6 Retail: Methods to Expand Future Recycled Water Use			
Section 6.3.2	Provide page location of narrative in UWMP		
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use
SRCS D Water Recycling Opportunities Plan	A periodically updated regional study that investigates feasible water recycling opportunities throughout the region.	ongoing	none at this time for CHWD service area
Total			0

6.4 Desalinated Water Opportunities

CHWD does not foresee any desalinated water opportunities to provide additional supply. The service area is not located near any sea or brackish water supply sources, and there are no known brackish groundwater supplies nearby. Future issues and opportunities may provide for CHWD, through SJWD or another agency, to exchange water supplies with another agency that does have desalination opportunities. CHWD will continue to monitor potential opportunities and develop programs and alternatives as identified.

6.5 Exchanges or Transfers

CHWD receives all of its surface water from its wholesale agency, SJWD. CHWD does not own rights or contracts to additional surface water supplies that it could transfer or

exchange. CHWD could participate in a conjunctive use program through the wholesaler that could result in transfer and exchange opportunities. At this time, CHWD does not plan on any transfer or exchanges.

6.6 Emergency Interties

CHWD does maintain interconnections with its neighboring water agencies, San Juan Water District, Orange Vale Water Company, and Sacramento Suburban Water District. The interconnections allow for emergency or short-term supply augmentation between agencies. Emergency interties are help support the short-term water shortage strategies discussed in Chapter 7.

6.7 Future Water Supply Projects

CHWD plans to construct an additional two wells over the next 20 years to replace older wells and to provide additional dry-year supplies. The District plans to maintain groundwater supply equivalent of 5,000 AFY from its well system. However, groundwater production could increase up to the full well capacities in successive dry year scenarios. The District plans to construct a new well approximately every ten years. Well site availability could impact the number of wells constructed or the construction implementation schedule. The District continues to monitor its service area for potential well sites and obtains the land as available. The District will re-evaluate its needs for new wells in the future and will update the number or timing of new wells as appropriate. Future supply projects are summarized in Table 6-7.

Section 6.7						
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 <i>Drop Down List User may select more than one.</i>	Expected Increase in Water Supply to Agency <i>This may be a range</i>
	<i>Drop Down List (y/n)</i>	<i>If Yes, Agency Name</i>				
New well 1	No			2019	Dry Year	1,300
New well 2	No			2025	Dry Year	1,300

6.8 Summary of Existing and Planned Sources of Water

Table 6-8 summarizes the 2015 supply volumes. Projected supply needs are summarized in Table 6-9. As the SJWD contract provides CHWD sufficient supply to meet its needs, SJWD supply is set equal to projected demands minus groundwater usage. Groundwater usage from “maintenance” pumping during normal years is assumed to be 900 AFY.

Table 6-8 Retail: Water Supplies — Actual				
Water Supply	Additional Detail on Water Supply	2015		
<i>Drop down list</i> <i>May use each category multiple times.</i> <i>These are the only water supply categories that will be recognized by the WUEdata online submittal tool</i>		Actual Volume	Water Quality <i>Drop Down List</i>	Total Right or Safe Yield <i>(optional)</i>
Purchased or Imported Water	SJWD wholesale	9,133	Drinking Water	
Groundwater	CHWD gw	841	Drinking Water	
Total		9,974		0

Table 6-9 Retail: Water Supplies — Projected

Water Supply	Additional Detail on Water Supply	Projected Water Supply Report To the Extent Practicable												
		2020		2025		2030		2035		2040 (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)	Reasonably Available Volume	Total Right or Safe Yield (optional)			
Purchased or Imported Water	SJWD	16,070		16,483		16,897		17,310						
Groundwater	CHWD groundwater	900		900		900		900						
Total		16,970	0	17,383	0	17,797	0	18,210	0	0	0	0	0	0

NOTES: Supply from SJWD matches demand minus CHWD groundwater.

7 Water Supply Reliability Assessment

This section describes the supply reliability and summarizes the total water supplies for CHWD. Surface supply reliability is entirely dependent on SJWD's reliability analysis of its supplies.

7.1 *Constraints on Water Sources*

SJWD's water supplies are subject to legal constraints through the CVP and State Board cutbacks and use restrictions as described in the SJWD UWMP. Total supply availability is also governed by the Water Forum Agreement (WFA). Both CHWD and SJWD are signatories of the WFA. The WFA stipulates that SJWD supply can be cut back to a minimum of 54,200 AFY, however, it is not a legal mandate such as the CVP and State Board restrictions. Supply reductions are further discussed in Section 7-2. The quality of water from Folsom Reservoir is considered good as the drainage basin is mostly alpine-based snow pack at the higher elevations and forest at the lower elevations with little to no urbanization. There are no water quality impacts expected that would reduce the supply.

There are no legal constraints in the wholesale/retail contract regarding supply allotment or shortage requirements. Instead, the SJWD and retailers agree to water supply allocations during drought periods based on the circumstances of each shortage period.

CHWD's groundwater supplies are subject to factors that could impact reliability. Groundwater basin issues could impact CHWD's groundwater supply. If the wells begin to produce contaminated groundwater, the supply could either be eliminated or reduced. The basin elevation levels have historically decreased, and only recently stabilized or even increased in some locations. If the groundwater levels decrease further, CHWD well capacities could be impacted, or even eliminated. However, the SGA has been working on a groundwater accounting framework to be implemented by the region's water agencies to mitigate and improve the groundwater basin conditions. It is assumed the only issue that could impact supply availability is groundwater contamination. Should this occur, CHWD will evaluate pump-and-treat alternatives versus drilling a new well.

The Consumer Confidence Report (CCR) detailing water quality is included in Appendix B.

7.2 *Reliability by Type of Year*

The reliability of each supply sources is summarized in Tables 7-1a and 7-1b. Table 7-1a summarizes the surface water supply from SJWD and was provided by SJWD. The SJWD supply is reduced to a minimum of 54,200 acre-feet during dry year periods per the Water Forum Agreement. During these times, SJWD assumes that all retailers will follow the 15 percent demand reductions as listed in the Water Forum Agreement. With these 15 percent demand reductions, SJWD projects sufficient supply for all retailers for

the next 20 years. Table 7-1b presents the reliability for the CHWD groundwater supply. The groundwater supply has never been reduced due to dry year occurrences.

Table 7-1a Retail: Basis of Water Year Data			
Year Type	Base Year	Available SJWD Wholesale Supplies	
		Agency may provide volume only, percent only, or both	
		Volume Available	% of Average Supply
Average Year	2010	82,200	100%
Single-Dry Year	1977	54,200	
Multiple-Dry Years 1st Year	1990	54,200	
Multiple-Dry Years 2nd Year	1991	54,200	
Multiple-Dry Years 3rd Year	1992	54,200	
NOTES: Multiple tables - this is the SJWD supply table. Water Forum reduces SJWD total supplies to as low as 54,200 AFY			

Table 7-1b Retail: Basis of Water Year Data			
Year Type	Base Year	Available Groundwater Supplies	
		Agency may provide volume only, percent only, or both	
		Volume Available	% of Average Supply
Average Year	2010		100%
Single-Dry Year	1977		100%
Multiple-Dry Years 1st Year	1990		100%
Multiple-Dry Years 2nd Year	1991		100%
Multiple-Dry Years 3rd Year	1992		100%
NOTES: Multiple tables - this is the CHWD Groundwater. Groundwater has never been limited.			

7.3 Supply and Demand Assessment

Normal year supply to demand projections are presented in Table 7-2. Projections indicate there is sufficient supply for the projected demands. Single dry year and multi dry year projections are presented in Tables 7-3 and 7-4, respectively. The same supply availability is assumed for the single and multi dry year scenarios. Projected demands during the dry year types are reduced 15 percent per the Water Forum Agreement.

SJWD provided information to CHWD regarding supply availability during each year type. Through 2035, SJWD projects they will have sufficient supply if demands are reduced 15 percent during dry years per the Water Forum Agreement. CHWD will maintain a groundwater supply of up to 5,000 AFY through the well system. CHWD

assumes 900 AFY groundwater from maintenance pumping. Therefore the SJWD is set equal to the projected demands minus the 900 AFY groundwater.

As indicated in the tables, CHWD projects sufficient supplies during each dry year type. The groundwater supply, plus potential demand reductions during shortage periods, is assumed to provide sufficient reliability for these planning purposes.

Table 7-2 Retail: Normal Year Supply and Demand Comparison					
	2020	2025	2030	2035	2040 (Opt)
Supply totals (autofill from Table 6-9)	16,970	17,383	17,797	18,210	0
Demand totals (autofill from Table 4-3)	16,970	17,383	17,797	18,210	0
Difference	0	0	0	0	0

Table 7-3 Retail: Single Dry Year Supply and Demand Comparison					
	2020	2025	2030	2035	2040 (Opt)
Supply totals	14,424	14,775	15,127	15,478	
Demand totals	14,424	14,775	15,127	15,479	
Difference	(0)	0	0	(0)	0
NOTES: Demands reduced 15 percent.					

Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison						
		2020	2025	2030	2035	2040 (Opt)
First year	Supply totals	14,424	14,775	15,127	15,478	
	Demand totals	14,424	14,775	15,127	15,479	
	Difference	(0)	0	0	(0)	0
Second year	Supply totals	14,424	14,775	15,127	15,478	
	Demand totals	14,424	14,775	15,127	15,479	
	Difference	(0)	0	0	(0)	0
Third year	Supply totals	14,424	14,775	15,127	15,478	
	Demand totals	14,424	14,775	15,127	15,479	
	Difference	(0)	0	0	(0)	0
NOTES: Assume multi year values same as single dry year values.						

8 Water Shortage Contingency Planning

8.1 Stages of Actions

The CHWD Water Shortage and Drought Contingency Plan is summarized below in Table 8-1 and presented in Appendix C. CHWD applies a five-stage rationing plan during declared water shortages. The rationing plan also applies to catastrophic loss of water. The rationing plan determines a consumption reduction of over 50 percent of the normal consumption depending of causes, severity, and anticipated duration of the water supply shortage. The Plan proposes two types of conditions for Stage 4 and 5 declarations. Both Stage 4 and 5 contain provisions for short term and long term conditions.

Table 8-1 Retail Stages of Water Shortage Contingency Plan		
Stage	Complete Both	
	Percent Supply Reduction ¹ <i>Numerical value as a percent</i>	Water Supply Condition <i>(Narrative description)</i>
<i>Add additional rows as needed</i>		
1	0%	Normal water supply
2	5-10%	Probability that supply will not meet all demands
3	11-25%	Supply will not meet all demands
4	26-50%	Supply is up to 50 percent less than required.
5	At least 50%	SJWD supply less than 52,400 AFY
¹ One stage in the Water Shortage Contingency Plan must address a water shortage of 50%.		

8.2 Prohibition on End Uses

CHWD assigns restrictions and prohibitions on end uses for each stage of its shortage contingency plan. Restrictions and prohibitions are presented in Table 8-2.

Table 8-2 Retail Only: Restrictions and Prohibitions on End Uses			
Stage	Restrictions and Prohibitions on End Users <i>Drop down list</i> <i>These are the only categories that will be accepted by the WUEdata online submittal tool</i>	Additional Explanation or Reference <i>(optional)</i>	Penalty, Charge, or Other Enforcement <i>Drop Down List</i>
1	Other	wasteful use prohibited	Yes
1	Landscape - Restrict or prohibit runoff from landscape irrigation		Yes
1	Other - Require automatic shut of hoses		Yes
1	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner		Yes
1	Other water feature or swimming pool restriction		Yes
2	Other - Prohibit use of potable water for washing hard surfaces		Yes
2	Landscape - Other landscape restriction or prohibition	reduce irrigation up to 10 percent.	Yes
2	Other	reduce indoor demand up to 10 percent.	Yes
2	Other	construction water use monitored.	Yes
3	Landscape - Other landscape restriction or prohibition	reduce irrigation up to 25 percent.	Yes
3	Other	reduce indoor demand up to 25 percent.	Yes
3	CII - Restaurants may only serve water upon request		Yes
4	Landscape - Prohibit all landscape irrigation	except for trees and shrubs.	Yes
4	Other	reduce indoor demand up to 50 percent.	Yes
4	Other	Most flushing prohibited	Yes
4	Landscape - Other landscape restriction or prohibition	New installation prohibited.	Yes
4	Landscape - Limit landscape irrigation to specific days		Yes
4	Other	Emergency tiered pricing.	Yes
5	Landscape - Other landscape restriction or prohibition	reduce irrigation more than 50 percent.	Yes

Table 8-2 Retail Only: Restrictions and Prohibitions on End Uses - Continued

Stage	Restrictions and Prohibitions on End Users <i>Drop down list</i> <i>These are the only categories that will be accepted by the WUEdata online submittal tool</i>	Additional Explanation or Reference <i>(optional)</i>	Penalty, Charge, or Other Enforcement <i>Drop Down List</i>
5	Other	reduce indoor demand more than 50 percent.	Yes
5	Other	No construction water.	Yes
5	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water		Yes
5	Other	No new services.	Yes

8.3 Penalties, Charges, Other Enforcement of Prohibitions

Enforcement actions are described in detail in the CHWD Water Shortage Conservation Program in Appendix C. In general, customers are provided notices and /or warning prior to penalty assessments.

8.4 Consumption Reduction Methods

Consumption reduction methods implemented at each stage are presented in Table 8-3.

Table 8-3 Retail Only: Stages of Water Shortage Contingency Plan - Consumption Reduction Methods		
Stage	Consumption Reduction Methods by Water Supplier <i>Drop down list</i> <i>These are the only categories that will be accepted by the WUEdata online submittal tool</i>	Additional Explanation or Reference <i>(optional)</i>
<i>Add additional rows as needed</i>		
1	Offer Water Use Surveys	
1	Provide Rebates on Plumbing Fixtures and Devices	
1	Provide Rebates for Landscape Irrigation Efficiency	
1	Reduce System Water Loss	
1	Other	Offer complete CUWCC-compliant conservation program.
2	Expand Public Information Campaign	
4	Implement or Modify Drought Rate Structure or Surcharge	
4	Decrease Line Flushing	
4	Increase Water Waste Patrols	
5	Moratorium or Net Zero Demand Increase on New Connections	

8.5 Determining Water Shortage Reductions

CHWD monitors water demand at all times through evaluation of customer meter reads. During water shortage periods, CHWD will also evaluate customer meter reads, groundwater production meters, and wholesale meters to determine impacts of water shortage stage prohibitions and other efforts to reduce water demands.

8.6 Revenue and Expenditure Impacts

During a water shortage condition where customer demands are decreased, it is anticipated that personnel and operations costs will not decrease at all, and may even increase depending on the shortage situation. The District maintains a cash reserve that can be used to offset short-term revenue reductions. However, if the supply shortage is projected to last longer, the District may enact a drought rate structure, similar to the ordinance in 2015, as included in Appendix D.

8.7 Resolution or Ordinance

The draft water shortage contingency resolution is included in Appendix C. The ordinance will be approved by the 2015 UWMP Board hearing.

8.8 Catastrophic Supply Interruption

In addition to reducing demands during a catastrophic loss of supply, CHWD has also identified actions to maintain short-term emergency supplies for health and fire-fighting needs. The District will power its well sites through portable and fixed power generators to pump groundwater. The District also maintains 20 emergency interconnections with its neighboring water agencies and can obtain additional supply as needed through these interconnections.

8.9 Minimum Supply Next Three Years

Table 8-4 presents the estimated available supply for the next three years. SJWD projects full supply for the next three years for all retailers (excluding any State emergency drought demand requirements). The supply includes the 5,000 AFY groundwater capacity plus full supply from SJWD to meet projected demands over next three years. Projected demands over next three years are rounded to approximately 17,000 AFY.

Table 8-4 Retail: Minimum Supply Next Three Years			
	2016	2017	2018
Available Water Supply	22,000	22,000	22,000
NOTES: Assumes full SJWD surface supply plus 5,000 AF GW.			

9 Conservation and Demand Management

CHWD maintains a comprehensive and successful water conservation program. The District is a member of the California Urban Water Conservation Council (CUWCC) and annually reports best management practice (BMP) results. Annual monitoring and reporting for both the CUWCC and USBR requirements are accomplished through the CUWCC annual reporting website. In addition, CHWD is a signatory to the Sacramento Water Forum Agreement, and submits its BMP efforts, status and results annually to the Water Forum.

This 2015 UWMP Guidebook provides special guidance for CUWCC members who are in full compliance. Agencies in full compliance with the CUWCC can submit the 2013 and 2014 CUWCC coverage reports to meet UWMP compliance. CHWD is a CUWCC member in full compliance. Accordingly, the 2013 and 2014 CUWCC coverage reports are presented in Appendix E.

10 Plan Adoption, Submittal, and Implementation

10.1 Notice of Public Hearing

The UWMP requires specific coordination efforts as well. The agency must send a notice to all county and city governments within its service area of its intent to develop and adopt a 2010 UWMP. This notice must be sent at least 60 days prior to the public hearing to discuss the UWMP. A notice was sent to Sacramento County, Placer County, Citrus Heights, and Roseville informing them of CHWD's UWMP process as presented in Appendix F. These notifications are summarized in Table 10-1.

A public review process was included in the UWMP development. CHWD held a public review of the UWMP to discuss the plan and receive comments from the public. The meeting was conducted at the June 14, 2016 Board of Directors Meeting. Public notice of the meeting was provided at the previous Board meeting, as is included in Appendix G.

Table 10-1 Retail: Notification to Cities and Counties		
City Name	60 Day Notice	Notice of Public Hearing
City of Citrus Heights	X	X
City of Roseville	X	X
County Name <i>Down List</i> <i>Drop</i>	60 Day Notice	Notice of Public Hearing
Sacramento County	X	X
Placer County	X	X

10.2 Public Hearing and Adoption

The UWMP was approved at the June 14, 2016 Board of Directors meeting. The adoption resolution is provided in Appendix H.

10.3 Plan Submittal

CHWD will submit the UWMP electronically to DWR by July 1, 2016. Within 30 days of adoption, CHWD will submit a copy of the UWMP to the State Library, Sacramento County, Placer County, City of Roseville, and City of Citrus Heights. A copy of the UWMP is available for public viewing at the District Office during normal business hours located at 6230 Sylvan Road, Citrus Heights CA 95610.

10.4 Implementation

This 2015 UWMP presented the District's plans for investigating additional supplies and continued implementation of the conservation program. The District continues to implement its conservation program and maintains its membership with the California Urban Water Conservation Council (CUWCC), submitting annual reports to CUWCC.

The District is also a member of the Water Forum Agreement (WFA), a regional agreement between government agencies, water purveyors, the business community, and environmental groups with the co-equal objectives of providing a reliable water supply for planned development to the year 2030; and to preserve the region's environmental crown jewel, the lower American River. The District's agreement with WFA contains requirements for implementing conservation programs. The District continues to implement the required programs and files annual progress reports to the Water Forum.

The District's water resources strategy includes the continuation of groundwater to supplement its surface water supply from SJWD. The District has five wells of varying age. Over time, the older wells can become inefficient and must be abandoned. New wells are installed to maintain or increase the reliable groundwater supply. The District continues to plan for well retirement and installation of new wells.

Implementation of the 2015 UWMP will be tracked through a variety of methods. Supply reliability issues will mostly be tracked through the SJWD Family supply strategies. Progress and results of the conservation program will continue to be submitted to CUWCC and Water Forum, as well as to the DWR through the AB1420 compliance requirements. Compliance with the 20x2020 water demand targets will be tracked through the customer billing database and supply production numbers.

Appendix A
2015 DWR SBX7-7 Tables

The 20x2020 process requires that a baseline demand be calculated from which target water demands are determined. The baseline demand is taken as the 10-year average gallon per day per capita, ending no earlier 2004. The baseline demand calculation is based on total supply into the system, and estimated service population for each year. The 2020 goal must be no more than 95 percent of a five-year gpcd average ending no earlier than 2007. The baseline and target calculation methodologies are presented below in the following tables per UWMP requirements. These SBX7 tables are also submitted separately to DWR per the UWMP requirements.

SBX7 Table 0. The units selected for the analysis are acre feet.

SBX7 Table 1. Presents the baseline periods selected to meet each requirement.

SBX7 Table 2. The population calculation methodology is selected. CHWD utilized the DWR Population Tool.

SBX7 Table 3. Presents the population served for each year in the baseline calculation and for 2015.

SBX7 Table 4. Presents the annual gross water use for each year in the baseline calculation and for 2015.

SBX7 Table 4-A. Presents the annual water into distribution system for each year in the baseline period and for 2015.

SBX Table 4-B. Indicates there was no recycled water use during the baseline periods. This defines the allowable baseline period range of ten years.

SBX7 Table 4-C. Not used.

SBX7 Table 4-C.1. Not used.

SBX7 Table 4-C.2. Not used.

SBX7 Table 4-C.3. Not used.

SBX7 Table 4-C.4. Not used.

SBX7 Table 4-D. Not used.

SBX7 Table 5. Presents the annual gpcd gpcd calculations for the baseline period and for 2015.

SBX7 Table 6. Summarizes the two baseline gpcd and for 2015.

SBX7 Table 7. Selects Method 1 for the 2020 Target Method.

SBX7 Table 7-A. Presents the baseline gpcd and 2020 gpcd target.

SBX7 Table 7-B. Not used.

SBX7 Table 7-C. Not used.

SBX7 Table 7-D. Not used.

SBX7 Table 7-E. Not used.

SBX7 Table 7-F. Confirms minimum target reduction from the 5-year baseline.

SBX7 Table 8. Presents the 2015 interim gpcd target.

SBX7 Table 9. Confirms CHWD is in compliance with the 2015 interim gpcd target.

The 20x2020 process requires that a baseline demand be calculated and then target water demands are determined. The baseline demand is taken as the 10-year average gallon per day per capita, ending no earlier 2004. The baseline demand calculation is based on total supply into the system, and estimated service population for each year.

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	17,268	Acre Feet
	2008 total volume of delivered recycled water	0	Acre Feet
	2008 recycled water as a percent of total deliveries	0.00%	Percent
	Number of years in baseline period ¹	10	Years
	Year beginning baseline period range	1995	
	Year ending baseline period range ²	2004	
5-year baseline period	Number of years in baseline period	5	Years
	Year beginning baseline period range	2003	
	Year ending baseline period range ³	2007	

¹If 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.

²The ending year must be between December 31, 2004 and December 31, 2010.

³The 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	1995	63,419
Year 2	1996	63,745
Year 3	1997	64,037
Year 4	1998	64,295
Year 5	1999	64,519
Year 6	2000	64,708
Year 7	2001	62,133
Year 8	2002	65,061
Year 9	2003	65,116
Year 10	2004	65,504
<i>Year 11</i>		
<i>Year 12</i>		
<i>Year 13</i>		
<i>Year 14</i>		
<i>Year 15</i>		
5 Year Baseline Population		
Year 1	2003	65,116
Year 2	2004	65,504
Year 3	2005	64,797
Year 4	2006	65,405
Year 5	2007	65,413
2015 Compliance Year Population		
2015		65,093
NOTES:		

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:				
<input checked="" type="checkbox"/>		The supplier's own water source		
<input type="checkbox"/>		A purchased or imported source		
Baseline Year <i>Fm SB X7-7 Table 3</i>	Volume Entering Distribution System	Meter Error Adjustment* <i>Optional (+/-)</i>	Corrected Volume Entering Distribution System	
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1995	89		89
Year 2	1996	43		43
Year 3	1997	476		476
Year 4	1998	1,337		1,337
Year 5	1999	2,711		2,711
Year 6	2000	2,192		2,192
Year 7	2001	588		588
Year 8	2002	2,296		2,296
Year 9	2003	573		573
Year 10	2004	1,347		1,347
Year 11	0			0
Year 12	0			0
Year 13	0			0
Year 14	0			0
Year 15	0			0
5 Year Baseline - Water into Distribution System				
Year 1	2003	573		573
Year 2	2004	1,347		1,347
Year 3	2005	100		100
Year 4	2006	100		100
Year 5	2007	98		98
2015 Compliance Year - Water into Distribution System				
	2015	841		841
* Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document				
NOTES:				

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

Name of Source		SJWD		
This water source is:				
<input type="checkbox"/>	The supplier's own water source			
<input checked="" type="checkbox"/>	A purchased or imported source			
Baseline Year <i>Fm SB X7-7 Table 3</i>	Volume Entering Distribution System	Meter Error Adjustment* <i>Optional (+/-)</i>	Corrected Volume Entering Distribution System	
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1995	18,332		18,332
Year 2	1996	20,742		20,742
Year 3	1997	21,298		21,298
Year 4	1998	19,130		19,130
Year 5	1999	20,343		20,343
Year 6	2000	18,363		18,363
Year 7	2001	20,554		20,554
Year 8	2002	17,576		17,576
Year 9	2003	17,938		17,938
Year 10	2004	19,754		19,754
Year 11	0			0
Year 12	0			0
Year 13	0			0
Year 14	0			0
Year 15	0			0
5 Year Baseline - Water into Distribution System				
Year 1	2003	17,938		17,938
Year 2	2004	19,754		19,754
Year 3	2005	18,934		18,934
Year 4	2006	18,735		18,735
Year 5	2007	16,537		16,537
2015 Compliance Year - Water into Distribution System				
	2015	9,133		9,133
* Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document				
NOTES:				

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	1995		0		0				0	0	0
Year 2	1996		0		0				0	0	0
Year 3	1997		0		0				0	0	0
Year 4	1998		0		0				0	0	0
Year 5	1999		0		0				0	0	0
Year 6	2000		0		0				0	0	0
Year 7	2001		0		0				0	0	0
Year 8	2002		0		0				0	0	0
Year 9	2003		0		0				0	0	0
Year 10	2004		0		0				0	0	0
Year 11	0		0		0				0	0	0
Year 12	0		0		0				0	0	0
Year 13	0		0		0				0	0	0
Year 14	0		0		0				0	0	0
Year 15	0		0		0				0	0	0
5 Year Baseline - Indirect Recycled Water Use											
Year 1	2003		0		0				0	0	0
Year 2	2004		0		0				0	0	0
Year 3	2005		0		0				0	0	0
Year 4	2006		0		0				0	0	0
Year 5	2007		0		0				0	0	0
2015 Compliance - Indirect Recycled Water Use											
2015			0		0				0	0	0

*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:

SB X7-7 Table 4: Annual Gross Water Use *

	Baseline Year Fm SB X7-7 Table 3	Volume Into Distribution System Fm SB X7-7 Table(s) 4-A	Deductions					Annual Gross Water Use
			Exported Water	Change in Dist. System Storage (+/-)	Indirect Recycled Water Fm SB X7-7 Table 4-B	Water Delivered for Agricultural Use	Process Water Fm SB X7-7 Table(s) 4-D	
10 to 15 Year Baseline - Gross Water Use								
Year 1	1995	18,421			0		0	18,421
Year 2	1996	20,785			0		0	20,785
Year 3	1997	21,774			0		0	21,774
Year 4	1998	20,467			0		0	20,467
Year 5	1999	23,054			0		0	23,054
Year 6	2000	20,555			0		0	20,555
Year 7	2001	21,142			0		0	21,142
Year 8	2002	19,872			0		0	19,872
Year 9	2003	18,511			0		0	18,511
Year 10	2004	21,101			0		0	21,101
Year 11	0	0			0		0	0
Year 12	0	0			0		0	0
Year 13	0	0			0		0	0
Year 14	0	0			0		0	0
Year 15	0	0			0		0	0
10 - 15 year baseline average gross water use								
5 Year Baseline - Gross Water Use								
Year 1	2003	18,511			0		0	18,511
Year 2	2004	21,101			0		0	21,101
Year 3	2005	19,034			0		0	19,034
Year 4	2006	18,835			0		0	18,835
Year 5	2007	16,635			0		0	16,635
5 year baseline average gross water use								
2015 Compliance Year - Gross Water Use								
2015		9,974			0		0	9,974

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

NOTES:

SB X7-7 Table 5: Gallons Per Capita Per Day (GPCD)				
Baseline Year <i>Fm SB X7-7 Table 3</i>		Service Area Population <i>Fm SB X7-7 Table 3</i>	Annual Gross Water Use <i>Fm SB X7-7 Table 4</i>	Daily Per Capita Water Use (GPCD)
10 to 15 Year Baseline GPCD				
Year 1	1995	63,419	18,421	259
Year 2	1996	63,745	20,785	291
Year 3	1997	64,037	21,774	304
Year 4	1998	64,295	20,467	284
Year 5	1999	64,519	23,054	319
Year 6	2000	64,708	20,555	284
Year 7	2001	62,133	21,142	304
Year 8	2002	65,061	19,872	273
Year 9	2003	65,116	18,511	254
Year 10	2004	65,504	21,101	288
<i>Year 11</i>	0	0	0	
<i>Year 12</i>	0	0	0	
<i>Year 13</i>	0	0	0	
<i>Year 14</i>	0	0	0	
<i>Year 15</i>	0	0	0	
10-15 Year Average Baseline GPCD				286
5 Year Baseline GPCD				
Baseline Year <i>Fm SB X7-7 Table 3</i>		Service Area Population <i>Fm SB X7-7 Table 3</i>	Gross Water Use <i>Fm SB X7-7 Table 4</i>	Daily Per Capita Water Use
Year 1	2003	65,116	18,511	254
Year 2	2004	65,504	21,101	288
Year 3	2005	64,797	19,034	262
Year 4	2006	65,405	18,835	257
Year 5	2007	65,413	16,635	227
5 Year Average Baseline GPCD				258
2015 Compliance Year GPCD				
2015		65,093	9,974	137
NOTES:				

SB X7-7 Table 6: Gallons per Capita per Day
Summary From Table SB X7-7 Table 5

10-15 Year Baseline GPCD	286
5 Year Baseline GPCD	258
2015 Compliance Year GPCD	137
NOTES:	

SB X7-7 Table 7-A: Target Method 1
20% Reduction

10-15 Year Baseline	GPCD	2020 Target GPCD
286		229

NOTES:

SB X7-7 Table 7-F: Confirm Minimum Reduction for 2020 Target

5 Year Baseline GPCD <i>From SB X7-7 Table 5</i>	Maximum 2020 Target*	Calculated 2020 Target <i>Fm Appropriate Target Table</i>	Confirmed 2020 Target
258	245	229	229

* Maximum 2020 Target is 95% of the 5 Year Baseline GPCD

NOTES:

SB X7-7 Table 7: 2020 Target Method*Select Only One*

Target Method		Supporting Documentation
<input checked="" type="checkbox"/>	Method 1	SB X7-7 Table 7A
<input type="checkbox"/>	Method 2	SB X7-7 Tables 7B, 7C, and 7D <i>Contact DWR for these tables</i>
<input type="checkbox"/>	Method 3	SB X7-7 Table 7-E
<input type="checkbox"/>	Method 4	Method 4 Calculator
NOTES:		

SB X7-7 Table 8: 2015 Interim Target GPCD

Confirmed 2020 Target <i>Fm SB X7-7 Table 7-F</i>	10-15 year Baseline GPCD <i>Fm SB X7-7 Table 5</i>	2015 Interim Target GPCD
229	286	257
NOTES:		

SB X7-7 Table 9: 2015 Compliance

Actual 2015 GPCD	2015 Interim Target GPCD	Optional Adjustments (in GPCD)				Adjusted 2015 GPCD	2015 GPCD (Adjusted if applicable)	Did Supplier Achieve Targeted Reduction for 2015?
		Extraordinary Events	Weather Normalization	Economic Adjustment	TOTAL Adjustments			
137	257	From Methodology 8 (Optional)	From Methodology 8 (Optional)	From Methodology 8 (Optional)	0	136.7921797	136.7921797	YES

NOTES:

Appendix B
Consumer Confidence Report (CCR)



2014 Consumer Confidence Report

Published by the
San Juan Wholesale Customer Agencies
P.O. Box 2157
Granite Bay, CA 95746

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

Your drinking water continues to meet all state and federal drinking water standards.



Contact Us If you have any questions about this report or your water supply, please contact your local water provider. Each of the member agencies holds monthly board meetings that are open to the public as indicated below.



San Juan Water District

Contact Person:
Greg Turner
(916) 791-1715
gturner@sjwd.org
www.sjwd.org

Board Meetings:
2nd and 4th Wednesday each month
7:00 p.m.
9935 Auburn-Folsom Road
Granite Bay



Citrus Heights Water District

Contact Person:
Brian Hensley
(916) 725-6873
bhensley@chwd.org
www.chwd.org

Board Meetings:
2nd Tuesday each month
6:30 p.m.
6230 Sylvan Road
Citrus Heights



Fair Oaks Water District

Contact Person:
Michael Nisenboym, P.E.
(916) 844-3513
mnisenboym@fowd.com
www.fowd.com

Board Meetings:
2nd Monday every month
6:30 p.m.
10326 Fair Oaks Boulevard
Fair Oaks



Orange Vale Water Company

Contact Person:
Mark DuBoise
(916) 988-1693
mduboise@orangevalewater.com
www.orangevalewater.com

Board Meetings:
1st Tuesday each month
5:00 p.m.
9031 Central Avenue
Orangevale

2014 Consumer Confidence Report

Published by the San Juan Wholesale Customer Agencies
San Juan Water District • Citrus Heights Water District • Fair Oaks Water District • Orange Vale Water Company

San Juan Water District provides reliable, high-quality water supplies to our customers. We serve nearly 160,000 customers in our retail and wholesale service areas throughout Sacramento and Placer counties. We test our surface water, which comes from the American River watershed, and our local groundwater for microbiological and chemical quality.

The U.S. Environmental Protection Agency and the State Water Resources Control Board maintain strict water quality standards designed to protect customers from waterborne disease organisms and harmful chemicals. As a public water agency, we are required by the USEPA to provide you with an annual Consumer Confidence Report.

This report provides you with information about drinking water quality and how we comply with drinking water quality standards. As your water provider, we are proud to report that this year's CCR concludes that, once again, your drinking water meets all federal and state drinking water standards.

What's In Your Water?

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 surface of the land 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 the source water include:

- Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, that 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, that 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, that 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, that can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

Where Does Your Water Come From?

Water from the agencies comes from two sources: treated surface water and groundwater. San Juan Water District diverts and treats surface water from Folsom Lake. This treated water is then distributed to the agencies. Orange Vale Water Company and San Juan Water District receive 100 percent of their supply from treated surface water. If you are a consumer of Citrus Heights or Fair Oaks Water Districts, your water is a mixture of treated surface water from San Juan Water District and groundwater from local wells.

San Juan Water District – 100% surface water
Orange Vale Water Company – 100% surface water
Citrus Heights Water District – 84% surface water, 16% groundwater
Fair Oaks Water District – 75.7% surface water, 24.3% groundwater

Source water assessments have been conducted for all the water sources to enable the Agencies to understand the activities that have the greatest potential for contaminating the drinking water supplies. The groundwater sources were assessed in 2002 and the surface water source was evaluated in 2001. New wells for Citrus Heights Water District were assessed in 2008 and 2009. These assessments were conducted in accordance with State

Board guidelines and copies of the complete assessments are available for review at the respective agency offices.

San Juan Water District conducted the evaluation of the Folsom Lake source. It was found to be most vulnerable to potential contamination from the Folsom Lake State Recreation Area facilities, high-density housing and associated activities such as sewer and septic systems and fertilizer, pesticide and herbicide application, as well as illegal activities and dumping. The source water is typically treated using conventional filtration and disinfection that is designed to remove many contaminants. Again this year, your water meets all federal and state drinking water standards.

Citrus Heights and Fair Oaks water districts conducted assessments of their local groundwater wells. It was found that all the wells are vulnerable to commercial urban activities, such as active and historic gas stations, dry cleaners, leaking underground storage tanks, known contaminant plumes, automobile repair shops, and sewer collection systems, none of which are associated with any detected contaminants.

Although Orange Vale Water Company does not currently utilize available local groundwater, assessments found that wells within their service area would be most vulnerable to rural grazing activities.

Learn more about your water at www.sjwd.org

A Note For Sensitive Populations

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

Important Information About Radon

Radon is a radioactive gas that you cannot see, taste or smell. It is found throughout the United States. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will, in most cases, be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. You should pursue radon removal for your home if the level of radon in your air is 4 picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that are not too costly. For additional information, call the California Radon Program (1-800-745-7236), the USEPA Safe Drinking Water Act Hotline (1-800-426-4791), or call the National Safety Council Radon Hotline at (1-800-767-7236).

General Information on Lead

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The San Juan Wholesale Customer Agencies are 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>.

The San Juan Wholesale Customer Agencies test distribution system samples every three years for lead and over ninety-five percent of samples are non-detectable and therefore not reported in the data table.

Unregulated Contaminant Monitoring Rule (UCMR3) Results

USEPA requires public water systems to collect data for unregulated constituents in drinking water supplies under the Unregulated Contaminant Monitoring Rule 3. Currently, these constituents have no drinking water standards but may be regulated in the future. More information on this USEPA program can be found at <http://water.epa.gov/lawsregs/rulesregs/ucmr3/index.cfm>. Citrus Heights Water District, Orange Vale Water Company, and Fair Oaks Water District all conducted a sampling program for their supplies and distribution system during 2014. Several constituents were detected, none at any level of human health concern.

Key to Abbreviations

PPB	parts per billion or micrograms per liter (µg/L)
PPM	parts per million or milligrams per liter (mg/L)
NTU	nephelometric turbidity units
µS/CM	microsiemens per centimeter
µG/L	micrograms per liter
ND	not detected
NR	not required
N/A	not applicable
TON	threshold odor number

Water Quality Definitions

Maximum Contaminant Level (MCL) — The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PFCs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Public Health Goal (PHG) — The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Maximum Contaminant Level Goal (MCLG) — The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

Maximum Residual Disinfectant Level (MRDL) — The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG) — The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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

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

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

Notification Level (NL) — Health-based advisory level set by the State Board for constituents with no MCL. This is not an enforceable standard, although requirements and recommendations may apply if detected above this level.

San Juan Wholesale Customer Agencies – 2014 Table of Detected Constituents

CONSTITUENT	San Juan Wholesale Customer Agencies				City of Orange				Fair Oaks Water Company				Orange Vale Water Company			
	PKGS/ MONTH	MCL (µG/L)	YEAR SAMPLED	AVERAGE	PKGS/ MONTH	MCL (µG/L)	YEAR SAMPLED	AVERAGE	PKGS/ MONTH	MCL (µG/L)	YEAR SAMPLED	AVERAGE	PKGS/ MONTH	MCL (µG/L)	YEAR SAMPLED	AVERAGE
Arsenic	PPB	0.04	10	ND	ND	2013	ND-2.7	ND	2013	ND-2.2	2,2	2006, 2012	ND-2.2	2,2	2006, 2012	ND-2.2
Barium	PPM	2	1	ND	ND	2013	ND-0.1	ND	2013	ND	ND	2006, 2012	ND	ND	2006, 2012	ND
Fluoride	PPM	1	2.0	ND	ND	2013	ND-0.18	0.17	2013	0.1-0.11	0.11	2006, 2012	0.1-0.11	0.11	2006, 2012	0.1-0.11
Hexavalent Chromium	PPB	0.02	10	ND	ND	2014	ND-2.3	1.4	2014	ND-2.5	ND	2014	ND-2.5	ND	2014	ND-2.5
Nitrate (as nitrate)	PPM	45	45	ND	ND	2014	5.2-13	8.2	2014	2.2-22	7.3	2007, 2011	2.2-22	7.3	2007, 2011	2.2-22
Nitrate/Nitrite (as N)	PPM	10	10	ND	ND	2014	NR	N/A	N/A	0.41-0.89	0.51	2006, 2012	0.41-0.89	0.51	2006, 2012	0.41-0.89
Chlorine Residual (distribution system)	PPM	(1)	(1)	0.1-0.31 (0.19-0.33)	0.53	2014	0.37-1.08	0.5	2014	0.2-4.25	0.48	2014	0.2-4.25	0.48	2014	0.2-4.25
Total Trihalomethanes (distribution system)	PPB	N/A	80	22-60 (26-69)	44.3 (52)	2014	ND-50	40	2014	ND-59	31.8	2014	ND-59	31.8	2014	ND-59
Halogenated Acids (distribution system)	PPB	N/A	80	18-22 (18-41)	23 (28)	2014	ND-40	20	2014	ND-38	20.3	2014	ND-38	20.3	2014	ND-38
Control of Disinfection By-Product Precursors (TCC (low water) (b))	PPM	N/A	TT = 2	1.0-1.9	1.3	2014	NR	N/A	N/A	NR	N/A	N/A	NR	N/A	N/A	N/A
Turbidity (b)	NTU	N/A	TT = 1	0.21	0.21	2014	NR	N/A	N/A	NR	N/A	N/A	NR	N/A	N/A	N/A
	Samplets %	N/A	TT = 0.3	100	100	2014	NR	N/A	N/A	NR	N/A	N/A	NR	N/A	N/A	N/A
Copper	PPM	0.3	1.3	0.06 (0.12)	0.30 (0.07)	2012 (2012)	0.09	30/0	2012	0.054	30/0	2013	0.054	30/0	2013	0.054
Total Coliform Bacteria	MPN/100 ml	0	1	N/A (1)	N/A (2)	2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Coliform Bacteria	MPN/100 ml	0	1	monthly positive	2	2014	0	0	2014	1.4	1	2014	1.4	1	2014	1.4
Copper	PPM	0.3	1.3	0.06 (0.12)	0.30 (0.07)	2012 (2012)	0.09	30/0	2012	0.054	30/0	2013	0.054	30/0	2013	0.054

CONSTITUENT	San Juan Wholesale Customer Agencies				City of Orange				Fair Oaks Water Company				Orange Vale Water Company			
	PKGS/ MONTH	MCL (µG/L)	YEAR SAMPLED	AVERAGE	PKGS/ MONTH	MCL (µG/L)	YEAR SAMPLED	AVERAGE	PKGS/ MONTH	MCL (µG/L)	YEAR SAMPLED	AVERAGE	PKGS/ MONTH	MCL (µG/L)	YEAR SAMPLED	AVERAGE
Total Dissolved Solids	PPM	N/A	1,000	41	41	2013	890-260	228	2013	100-400	181	2006, 2012	100-400	181	2006, 2012	100-400
Specific Conductance	µS/CM	N/A	1,800	58-84	72	2013	280-560	284	2013	140-550	228	2006, 2012	140-550	228	2006, 2012	140-550
Sulfate	PPM	N/A	500	4.8	4.8	2013	7.8-12	9.7	2013	3.6-28	10.8	2006, 2012	3.6-28	10.8	2006, 2012	3.6-28
Chloride	PPM	N/A	500	2.8	2.8	2013	10-18	15	2013	3.1-23	6.9	2006, 2012	3.1-23	6.9	2006, 2012	3.1-23
Turbidity	NTU	N/A	5	0.018-0.21	0.076	2014	ND-0.1	ND	2013	0.12-0.6	0.35	2006, 2012	0.12-0.6	0.35	2006, 2012	0.12-0.6
Odor	TON	N/A	3	2	2	2013	ND	ND	2013	ND	ND	2006, 2012	ND	ND	2006, 2012	ND
Hardness	PPM	N/A	NONE	20	20	2013	95-160	121	2013	47-210	86.8	2006, 2012	47-210	86.8	2006, 2012	47-210
Sodium	PPM	N/A	NONE	2.5	2.5	2013	11-23	18.8	2013	4.9-32	11.6	2006, 2012	4.9-32	11.6	2006, 2012	4.9-32
Calcium	PPM	N/A	NONE	5.2	5.2	2013	23-33	27	2013	12-43	19.6	2006, 2012	12-43	19.6	2006, 2012	12-43
Magnesium	PPM	N/A	NONE	1.7	1.7	2013	8.1-18	12.7	2013	4.2-25	9.2	2006, 2012	4.2-25	9.2	2006, 2012	4.2-25
Radon 222	pCi/L	N/A	NONE	ND	ND	2008	165-304	234.5	2008, 2009	114-339	215	2005	114-339	215	2005	114-339

(a) - Data for OVC Distribution System is shown in parenthesis.
 (b) - Only surface water sources must comply with PDWS for Control of Disinfection By-Product Precursors and turbidity.
 (c) - Unregulated contaminant monitoring helps determine where certain contaminants occur and whether they need to be regulated.
 The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

Appendix C
Citrus Heights Water District Water Shortage Conservation Plan

ORDINANCE 01-2016

**AN ORDINANCE ESTABLISHING A WATER CONSERVATION PROGRAM WITHIN
CITRUS HEIGHTS WATER DISTRICT**

WHEREAS, this Ordinance restates and reauthorizes the establishment of a Water Conservation Program, Mandatory Water Conservation Stage Regulations and progressive Enforcement Measures to be implemented to reduce water consumption within Citrus Heights Water District (“CHWD” or “District”); and

WHEREAS, the Ordinance is adopted pursuant to the laws of the State of California; and

WHEREAS, this Ordinance supersedes and nullifies Ordinance 02-91 and any amendments thereto, regarding the District’s Water Conservation Program; and

WHEREAS, the District recognizes that water is a valuable natural resource, which should not be wasted, and the District has the mission of providing its customers with high quality water for domestic, commercial, irrigation, and fire protection purposes at adequate pressures and equitable rates; and

WHEREAS, the District recognizes that water availability can be adversely affected by weather conditions, environmental commitments, a depleting ground-water basin, and growth; and

WHEREAS, no provisions of the District’s Water Conservation Program shall apply to fire hydrants, fire mains, fire sprinkler lines or other equipment used solely for fire protection purposes. No provisions of the District’s Water Conservation Program shall apply to any hospital, health care or convalescent facility or any other type of facility where the health and welfare would be affected by restrictions on water used, nor shall it apply to veterinary hospitals. Such facilities are encouraged to conserve water to the extent possible. However, the District’s Water Conservation Program does apply to the outdoor grounds, yards and parking areas of these facilities; and

WHEREAS, the adoption and enforcement of a comprehensive Water Conservation Program will allow the District to delay or avoid declaring a water shortage emergency pursuant to Water Code Section 350; and

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of CHWD adopt this Ordinance 01-2016 regarding the District’s Water Conservation Program, Mandatory Water Conservation Stage Regulations, and progressive Enforcement Measures.

SECTION A – WATER CONSERVATION STAGE DEFINITIONS:

STAGE 1 – NORMAL WATER SUPPLY: The District’s water supply or distribution system is able to meet all the water demands of its customers in the immediate future.

STAGE 2 – WATER ALERT: There is a probability that the District’s water supply or distribution system will not be able to meet all the water demands of its customers.

STAGE 3 – WATER WARNING: The District’s water supply or distribution system will not be able to meet all the water demands of its customers.

STAGE 4 – WATER CRISIS: SHORT-TERM (45 days or less): The District’s water supply or distribution system is not able to meet all the water demands of its customers under STAGE 3 – WATER WARNING requirements because of a temporary emergency or other short-term supply or

distribution system constraints.

STAGE 5 – WATER CRISIS: LONG-TERM: (more than 45 days): The District’s water supply or distribution system is not able to meet all the water demands of its customers under STAGE 3 – WATER WARNING requirements because of drought or other constraints on water supplies or the water distribution system that are long-term, rather than temporary in nature.

STAGE 5 – WATER EMERGENCY: SHORT-TERM (45 days or less): The District is experiencing a major failure of water supply, storage, or distribution infrastructure because of a temporary emergency or other short-term constraints.

STAGE 5 – WATER EMERGENCY: LONG-TERM (more than 45 days): The District is experiencing a major failure of water supply, water storage, or distribution infrastructure because of drought or other constraints that are long-term, rather than temporary in nature.

SECTION B – WATER CONSERVATION STAGE DECLARATION:

Upon the declaration or ratification by the Board of Directors of a specific Stage, as defined in Section A, the following Mandatory Water Conservation Stage Regulations shall be in effect:

The declaration of Short-Term Stage 4 or Short-Term Stage 5 Mandatory Water Conservation Stage Regulations may be made by the agency’s General Manager or his/her designee, subject to ratification by the agency’s Board of Directors in a regular or special session.

SECTION C – MANDATORY WATER CONSERVATION STAGE REGULATIONS – STAGES 1 – 5:

STAGE 1 – NORMAL WATER SUPPLY

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Water shall be confined to the customer’s property and shall not be allowed to run off to adjoining properties or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.
3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
4. Leaking customer pipes or faulty sprinklers shall be repaired within five (5) working days or less if warranted by the severity of the problem.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. Pool draining and refilling shall be allowed only for health, maintenance, or structural considerations.
6. Washing streets, parking lots, driveways, sidewalks, or buildings, is prohibited except as necessary for health, esthetic or sanitary purposes.
7. Customers are encouraged to take advantage of the District’s water conservation programs and rebates.

STAGE 2 – WATER ALERT

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water

are prohibited.

2. Water shall be confined to the customer's property and shall not be allowed to run off to adjoining properties or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.
3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
4. Leaking customer pipes or faulty sprinklers shall be repaired within five (5) working days or less if warranted by the severity of the problem.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. Pool draining and refilling shall be allowed only for health, maintenance, or structural considerations.
6. Washing streets, parking lots, driveways, sidewalks, or buildings, is prohibited except as necessary for health, esthetic or sanitary purposes.
7. Customers are encouraged to take advantage of the District's water conservation programs and rebates.
8. Reduce landscape and pasture irrigation by 5 – 10%. Customers with "smart" irrigation timers or controllers are asked to set their controllers to achieve 90 to 95% of the evapotranspiration "ET" rate. Drip irrigation systems are excluded from this requirement.
9. Reduce indoor water use by 5 – 10%. Contact the District for tips and techniques to reduce indoor water use.
10. Users of construction meters and fire hydrant meters will be monitored for efficient water use.

STAGE 3 – WATER WARNING

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Water shall be confined to the customer's property and shall not be allowed to run off to adjoining properties or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.
3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
4. Leaking customer pipes or faulty sprinklers shall be repaired within two (2) working days or less if warranted by the severity of the problem.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. Pool draining and refilling shall be allowed only for health, maintenance, or structural considerations.
6. Washing streets, parking lots, driveways, sidewalks, or buildings, is prohibited except as necessary for health, esthetic or sanitary purposes.

7. Customers are encouraged to take advantage of the District's water conservation programs and rebates.
8. Reduce landscape and pasture irrigation by 11 – 25%. Customers with "smart" irrigation timers or controllers are asked to set their controllers to achieve 75 to 89% of the evapotranspiration "ET" rate. Drip irrigation systems are excluded from this requirement.
9. Reduce indoor water use by 11 – 25%. Contact the District for tips and techniques to reduce indoor water use.
10. Users of construction meters and fire hydrant meters will be monitored for efficient water use.
11. Restaurants shall serve water only upon request.
12. Provisions of the Water Shortage Rate Structure may be implemented by the Board of Directors.

STAGE 4 – WATER CRISIS: SHORT-TERM

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Water shall be confined to the customer's property and shall not be allowed to run off to adjoining properties or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.
3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
4. Leaking customer pipes or faulty sprinklers shall be repaired within 24 hours or less if warranted by the severity of the problem.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. No potable water from the District's system shall be used to fill or refill swimming pools, artificial lakes, ponds or streams. Water use for ornamental ponds and fountains is prohibited.
6. Washing streets, parking lots, driveways, sidewalks, or buildings, is prohibited except as necessary for health or sanitary purposes.
7. Customers are encouraged to take advantage of the District's water conservation programs and rebates.
8. Reduce landscape and pasture irrigation by 26 – 50%. Customers with "smart" irrigation timers or controllers are asked to set their controllers to achieve 50 to 74% of the evapotranspiration "ET" rate. Drip irrigation systems are not excluded from this requirement.
9. Reduce indoor water use by 26 - 50%. Contact the District for tips and techniques to reduce indoor water use.
10. Users of construction meters and fire hydrant meters will be monitored for efficient water use. Use of reclaimed water for construction purposes is encouraged.

11. Restaurants shall serve water only upon request.
12. Flushing of sewers or fire hydrants is prohibited except in case of emergency and for essential operations or unless specifically authorized by the District.
13. Installation of new turf or landscaping is prohibited.
14. Irrigation shall be limited to two days per week. The days of the week when outdoor water will be permitted shall be set based on the last digit of the street address. Odd addresses, streetscapes, and medians shall limit watering to Tuesdays and Saturdays; even addresses shall limit watering to Wednesdays and Sundays. No irrigation is permitted on Mondays, Thursdays and Fridays. Irrigation should be limited to the minimal amount of water necessary to keep plants and trees alive. Application of potable water to outdoor landscapes during and within 48 hours after measurable rainfall is prohibited.

STAGE 4 – WATER CRISIS: LONG-TERM

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Water shall be confined to the customer's property and shall not be allowed to run-off to adjoining properties or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.
3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
4. Leaking customer pipes or faulty sprinklers shall be repaired within 24 hours or less if warranted by the severity of the problem.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. No potable water from the District's system shall be used to fill or refill swimming pools, artificial lakes, ponds or streams. Water use for ornamental ponds and fountains is prohibited.
6. Washing streets, parking lots, driveways, sidewalks, or buildings, is prohibited except as necessary for health or sanitary purposes.
7. Customers are encouraged to take advantage of the District's water conservation programs and rebates.
8. Reduce landscape and pasture irrigation by 26 – 50%. Customers with "smart" irrigation timers or controllers are asked to set their controllers to achieve 50 to 74% of the evapotranspiration"ET" rate. Drip irrigation systems are NOT excluded from this requirement.
9. Reduce indoor water use by 26 - 50%. Contact the District for tips and techniques to reduce indoor water use.
10. Users of construction meters and fire hydrant meters will be monitored for efficient water use. Use of reclaimed water for construction purposes is encouraged.
11. Restaurants shall serve water only upon request.

12. Provisions of the Water Shortage Rate Structure may be implemented by the Board of Directors.
13. Flushing of sewers or fire hydrants is prohibited except in case of emergency and for essential operations or unless specifically authorized by the District.
14. Installation of new turf or landscaping is prohibited.
15. Irrigation shall be limited to two days per week. The days of the week when outdoor water will be permitted shall be set based on the last digit of the street address. Odd addresses, streetscapes, and medians shall limit watering to Tuesdays and Saturdays; even addresses shall limit watering to Wednesdays and Sundays. No irrigation is permitted on Mondays, Thursdays and Fridays. Irrigation should be limited to the minimal amount of water necessary to keep plants and trees alive. Application of potable water to outdoor landscapes during and within 48 hours after measurable rainfall is prohibited.
16. Water for flow testing and construction purposes from water agency fire hydrants and blow-offs is prohibited. Use of reclaimed water for construction purposes is encouraged.
17. No commitments will be made to provide service for new water service connections unless the Department of Water Resources Model Water Efficient Landscape Ordinance, found at: <http://www.water.ca.gov/wateruseefficiency/docs/MWEL09-10-09.pdf>, is followed and the plans have been approved by the county or city building department which has jurisdiction over the property location. Any authorized landscape for new connections is subject to all restrictions set forth in Stage IV.

STAGE 5 – WATER EMERGENCY: SHORT-TERM

The declaration of Short-Term Stage 5 water conservation requirements may be declared by the agency's General Manager or his/her designee and subject to ratification by the agency's Board of Directors in a regular or special session. A short-term declaration is for water shortage conditions expected for a duration of 45 days or less.

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Water shall be confined to the customer's property and shall not be allowed to run-off to adjoining properties, roadside, ditch or gutter. Care shall be taken not to water past the point of saturation.
3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
4. Leaking customer pipes or faulty sprinklers shall be repaired immediately. Water service will be suspended until repairs are made.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. No potable water from the District's system shall be used to fill or refill swimming pools, artificial lakes, ponds or streams. Water use for ornamental ponds and fountains is prohibited.
6. Washing streets, parking lots, driveways, sidewalks, or buildings, is prohibited except as necessary for health or sanitary purposes.

7. Customers are encouraged to take advantage of the District's water conservation programs and rebates.
8. Reduce landscape and pasture irrigation by more than 50%. Customers with "smart" irrigation timers or controllers are asked to set their controller to achieve 75% or more of the evapotranspiration "ET" rate. Drip irrigation systems are not excluded from these requirements.
9. Reduce indoor water use by more than 50%. Contact the District for tips and techniques to reduce indoor water use.
10. Use of construction meters and fire hydrants is prohibited except in case of emergency and for essential operations or unless specifically authorized by the District.
11. Restaurants shall serve water only upon request.
12. Flushing of sewers or fire hydrants is prohibited except in case of emergency and for essential operations or unless specifically authorized by the District.
13. Installation of new turf or landscaping is prohibited.
14. Irrigation shall be limited to two days per week. The days of the week when outdoor watering will be permitted shall be set based on the last digit of the street address. Odd addresses, streetscapes and medians shall limit watering to Tuesdays and Saturdays; Even addresses shall limit watering to Wednesdays and Sundays. No irrigation is permitted on Mondays, Thursdays and Fridays. Irrigation should be limited to a minimal amount necessary to keep plants and trees alive. Application of potable water to outdoor landscapes during and within 48 hours of measurable rainfall is prohibited.
15. Water for flow testing and construction purposes from water agency fire hydrants and blow-offs is prohibited. No potable water from the District's system shall be used for construction purposes including but not limited to dust control, compaction, or trench jetting. Use of reclaimed water for construction purposes is encouraged.
16. No commitments will be made to provide service for new water service connections unless the Department of Water Resources Model Water Efficient Landscape Ordinance, found at: <http://www.water.ca.gov/wateruseefficiency/docs/MWEL09-10-09.pdf>, is followed and the plans have been approved by the county or city building department which has jurisdiction over the property location. Any authorized landscape for new connections is subject to all restrictions set forth in Stage 4.
17. Automobiles or equipment shall be washed only at commercial establishments that use recycled or reclaimed water.
18. Landscape and pasture irrigation is prohibited.

STAGE 5 – WATER EMERGENCY: LONG-TERM

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Water shall be confined to a customer's property and shall not be allowed to run-off to adjoining properties, roadsides, ditch or gutter. Care shall be taken not to water past the point of saturation.

3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
4. Leaking customer pipes shall be repaired immediately. Water service will be suspended until repairs are made.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. No potable water from the District's system shall be used to fill or refill swimming pools, artificial lakes, ponds or streams. Water use for commercial and multi-family residential ornamental ponds and fountains is prohibited.
6. Washing streets, parking lots, driveways, sidewalks, or buildings, is prohibited except as necessary for health or sanitary purposes.
7. Customers are encouraged to take advantage of the District's water conservation programs and rebates.
8. Landscape and pasture irrigation are prohibited except for trees and shrubs.
9. Reduce indoor water use by more than 50%. Contact the District for tips and techniques to reduce indoor water use.
10. Use of construction meters and fire hydrants is prohibited except in the case of emergency and for essential operations or unless specifically authorized by the District.
11. Restaurants shall serve water only upon request.
12. Provisions of the Water Shortage Rate Structure may be implemented by the Board of Directors.
13. Flushing of sewers or fire hydrants is prohibited except in case of emergency and for essential operations or unless specifically authorized by the District.
14. Installation of new turf or landscaping is prohibited.
15. Outdoor irrigation is prohibited except for trees and shrubs.
16. Water for flow testing and construction purposes from water agency fire hydrants and blow-offs is prohibited. No potable water from the District's system shall be used for construction purposes including but not limited to dust control, compaction, or trench jetting. Use of reclaimed water for construction purposes is encouraged.
17. No commitments will be made to provide service for new water connections.
18. Automobiles or equipment shall be washed only at commercial establishments that use recycled or reclaimed water.

USBR HEALTH AND SAFETY CONDITION – Protection of Public Health and Safety

1. A severely low water supply exists. Water to be used for purposes of interior residential, sanitation, and fire protection.
2. Reduce indoor water use by more than 75%. Outdoor Irrigation is prohibited.

SECTION D – ENFORCEMENT MEASURES:

- A. Upon initial observation by District personnel or authorized designee of a violation of the Mandatory Water Conservation Stage Regulations, as outlined in Section C of the Mandatory Water Conservation Stage Regulations, the violator shall be informed of the District's current Water Conservation Stage Requirements, shall be provided with appropriate water conservation information, and offered a free Water Efficiency Review. If no contact is made, a Courtesy Notice will be left at the premises informing the customer of the observed violation. The customer will be informed of the consequences of further violations.
- B. Upon a second observation by District personnel or authorized designee of a violation of the Mandatory Water Conservation Stage Regulations, as outlined in Section C of the Mandatory Water Conservation Stage Regulations, a Notice of Violation will be issued and left at the premises informing the customer of the violation and the consequences of further violations. A \$50.00 penalty will be applied to the customer's account for noncompliance of the Mandatory Conservation Stage Requirements. The customer's water service will be terminated (at District's discretion) until the violation is corrected. Prior to a scheduled water service termination, the customer may choose to pay the penalty fee and correct the violation as specified in the required time frame designated by the current Stage Declaration.
- C. Upon a third observation by District personnel or authorized designee of a violation of the Mandatory Water Conservation Regulations, as outlined in Section C of the Mandatory Water Conservation Stage Requirements, a Notice of Violation will be issued and left at the premises informing the customer of the violation and the consequences of further violations. A \$100.00 penalty will be applied to the customer's account for noncompliance of the Mandatory Water Conservation Stage Regulations. The customer's water service will be terminated (at District's discretion) until the violation is corrected. Prior to a scheduled water service termination, the customer may choose to pay the penalty fee and correct the violation as specified in the required time frame designated by the current Stage Declaration.
- D. Upon a fourth observation by District personnel or authorized designee of a violation of the Mandatory Water Conservation Regulations, as outlined in Section C of the Mandatory Water Conservation Stage Regulations, a Notice of Violation will be issued and left at the premises informing the customer of the violation and the consequences of further violations. A \$250.00 penalty will be applied to the customer's account for noncompliance of the Mandatory Water Conservation Stage Regulations. The customer's water service will be terminated (at District's discretion) until the violation is corrected. Prior to a scheduled water service termination, the customer may choose to pay the penalty fee and correct the violation as specified in the required time frame designated by the current Stage Declaration.
- E. Customers for whom these Mandatory Water Conservation Stage Regulations may present an undue hardship may request a variance from the District. Said variance request shall be submitted to the Water Efficiency Coordinator and shall accurately describe the reason for non-compliance with specific requirements in the Mandatory Water Conservation Stage Regulations. A variance request will be approved or denied in writing by the District's General Manger or the Board of Directors.
- F. Violation notices from other than the current calendar year shall be considered null and void

when applying the enforcement provisions of the Mandatory Water Conservation Stage Regulations.

SECTION E:

THIS ORDINANCE SHALL BE IN FULL FORCE AND EFFECT UPON THE DATE OF ITS PASSAGE.

PASSED AND ADOPTED by the Board of Directors of Citrus Heights Water District, this 10th day of May 2016, by the following vote, to-wit:

AYES: Directors:
NOES: Directors:
ABSENT: Directors:

SEAL

ALLEN B. DAINS, President
Board of Directors
Citrus Heights Irrigation District

ATTEST:

ROBERT A. CHURCHILL
Secretary

DRAFT

Appendix D
2015 Drought Rate Structure

CITRUS HEIGHTS WATER DISTRICT
RESOLUTION NO. 28-2015

RESOLUTION RENEWING AND EXTENDING THE WATER SHORTAGE RATE STRUCTURE
FOR CITRUS HEIGHTS WATER DISTRICT
AND
REMOVING THE TWENTY FIVE PERCENT (25%) WATER SHORTAGE RATE APPLIED TO THE
USAGE PORTION OF CUSTOMERS' BILLS

WHEREAS, CITRUS HEIGHTS WATER DISTRICT continues to identify the potential financial impacts of water shortage due to drought or other water supply emergency; and

WHEREAS, the District developed a Water Shortage Rate Structure, enacted in 2015, for offsetting the resulting financial deficit; and

WHEREAS, a noticed Public Hearing was held on November 17, 2015 for the purpose of receiving public comment on the proposed renewal of the Water Shortage Rate Structure; and

WHEREAS, discontinuing the twenty-five percent (25%) Water Shortage Rate on the usage portion of customers' bills, effective January 1, 2016, is recommended as part of the overall budget and rate adoption process for 2016.

NOW THEREFORE, BE IT RESOLVED AND ORDERED AS FOLLOWS:

- The proposed extended Water Shortage Rate Structure is:

CITRUS HEIGHTS WATER DISTRICT WATER SHORTAGE RATE STRUCTURE ⁽¹⁾						
	STAGE 1 NORMAL SUPPLY	STAGE 2 WATER ALERT	STAGE 3 WATER WARNING	STAGE 4 WATER CRISIS	STAGE 5 WATER EMERGENCY	USBR HEALTH & SAFETY STD
Use Reduction Goals	None	5% to 10%	11% to 25%	26% to 50%	Over 50%	Over 75%
Bi-Monthly Service Charges ⁽²⁾						
Water Usage Charges (\$/CCF) ⁽³⁾						
Standard Water Usage Rate (a)	\$ 0.8735	\$ 0.8735	\$ 0.8735	\$ 0.8735	\$ 0.8735	\$ 0.8735
Water Shortage Charge ⁽⁴⁾			10%	25%	40%	55%
Sample Water Shortage Charges (b)			\$ 0.0874	\$ 0.2184	\$ 0.3494	\$ 0.4804
Sample Aggregated Usage Rates (a + b)			\$ 0.9609	\$ 1.0919	\$ 1.2229	\$ 1.3539
Excess Use Charge ⁽⁵⁾				50%	150%	250%
Sample Excess Use Charges (c)				\$ 0.5459	\$ 1.8344	\$ 3.3848
Sample Aggr. Excess Use Rates (a + b + c)				\$ 1.6378	\$ 3.0573	\$ 4.7387
Excess Use Charge applies to usage above amounts shown ⁽⁶⁾						
		¾-inch meter	26 CCF			
		1-inch meter	52 CCF			
		1½-inch meter	156 CCF			
		2-inch meter	208 CCF			
		3-inch meter	416 CCF			
		4-inch meter & larger	832 CCF			

(1) This Table shows the proposed Water Shortage Charges and Excess Use Charges applied to the Standard Water Usage Rates, using 2016 as an example. The percentages would be applied to any then-current Standard Water Usage Rates in future years.

(2) No changes to the bi-monthly service charges are proposed during water shortages.

(3) 1 CCF equals 100 cubic feet which equals 746 gallons of water.

(4) Water Shortage Charges are incremental increases in the Standard Water Usage Rate applied in

Stages 3, 4 and 5, and with the United States Bureau of Reclamation (USBR) Health and Safety limitation.

(5) Excess Use Charges effectively create a higher-priced second tier, and would apply only in Stages 4 and 5, and with the Health and Safety limitation. The percentage is applied to the combined Standard Water Usage and Water Shortage rate to create the second tier.

(6) Excess Use Charge applies to bi-monthly usage in excess of amounts shown for each meter size.

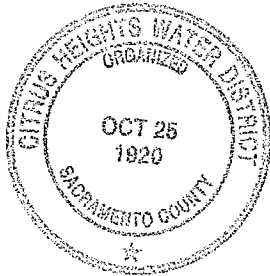
The Water Shortage Rate Structure will remain in effect until or unless the Board opts to remove the Water Shortage Rate Structure.

2. Section 3 of Citrus Heights Water District Resolution 14-2015, enacting a 25% Water Shortage Rate applied to the usage portion of customers' bills, is repealed, effective January 1, 2016.

PASSED AND ADOPTED by the Board of Directors of the CITRUS HEIGHTS WATER DISTRICT, this 17th day of November 2015, by the following vote, to-wit:

AYES: Directors: Dains, Sheehan, Riehle
NOES: Directors: None
ABSTAIN: Directors: None
ABSENT: Directors: None

SEAL



A handwritten signature in black ink, appearing to read "Allen B. Dains", written over a horizontal line.

ALLEN B. DAINS, President
Board of Directors
Citrus Heights Water District

ATTEST:

A handwritten signature in black ink, appearing to read "Robert A. Churchill", written over a horizontal line.

ROBERT A. CHURCHILL, Secretary

Appendix E
CUWCC 2013/2014 Coverage Reports



CUWCC BMP Retail Coverage Report 2013

Foundational Best Management Practices for Urban Water Efficiency

BMP 1.1 Operation Practices

ON TRACK

5998 Citrus Heights WD

1. Conservation Coordinator provided with necessary resources to implement BMPs?

Name:	Rex Meurer
Title:	Water Efficiency Coordinator
Email:	rmeurer@chwd.org

2. Water Waste Prevention Documents

WW Document Name	WWP File Name	WW Prevention URL	WW Prevention Ordinance Terms Description
Option A Describe the ordinances or terms of service adopted by your agency to meet the water waste prevention requirements of this BMP.	CHWD Water Conservation Stages08pdf.pdf	http://www.water.ca.gov/wateruseefficiency/docs/LandscapeOrdinanceReport_to_Leg-4-22-2011.pdf	See above uploaded file #1 Conservation Stage Requirements for Citrus Heights Water District (attachment 1). Citrus Heights Water District supports AB 1881 through the City of Citrus Heights and Sacramento County (above in URL address). CHWD is current
Option B Describe any water waste prevention ordinances or requirements adopted by your local jurisdiction or regulatory agencies within your service area.			
Option C Describe any documentation of support for legislation or regulations that prohibit water waste.			
Option D Describe your agency efforts to cooperate with other entities in the adoption or enforcement of local requirements consistent with this BMP.			Citrus Heights Water District participates in Regional Water Authorities Water Efficiency Program (RWA). RWA coordinates an annual effort to coordinate neighboring Water District's stage requirements
Option E Describe your agency support positions with respect to adoption of legislation or regulations that are consistent with this BMP.			
Option F Describe your agency efforts to support local ordinances that establish permits requirements for water efficient design in new development.			CHWD supports AB 1881 through the City of Citrus Heights and Sacramento County



CUWCC BMP Retail Coverage Report 2013

Foundational Best Management Practices for Urban Water Efficiency

BMP 1.1 Operation Practices

ON TRACK

At Least As effective As

No

Exemption

No

Comments:



CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.2 Water Loss Control

ON TRACK

5998 Citrus Heights WD

- Completed Standard Water Audit Using AWWA Software? Yes
- AWWA File provided to CUWCC? Yes
- AWWAWaterAudit2013FINAL.xls
- AWWA Water Audit Validity Score? 73
- Complete Training in AWWA Audit Method Yes
- Complete Training in Component Analysis Process? Yes
- Component Analysis? Yes
- Repaired all leaks and breaks to the extent cost effective? Yes
- Locate and Repair unreported leaks to the extent cost effective? Yes

Maintain a record keeping system for the repair of reported leaks, including time of report, leak location, type of leaking pipe segment or fitting, and leak running time from report to repair. Yes

Provided 7 Types of Water Loss Control Info

Leaks Repairs	Value Real Losses	Value Apparent Losses	Miles Surveyed	Press Reduction	Cost Of Interventions	Water Saved (AF)
276		1149.98	0		294884	352

At Least As effective As

CHWD actively report and investigate possible leaks when noticed. Water main leaks are typically repaired within two days and a leak repair report prepared by the responsible field operations. Water Efficiency staff actively monitors for leaks while

Exemption

Comments:



Reporting unit name

Citrus Heights WD

Reporting unit number:

5998

Implementation

Does your agency have any unmetered service connections?

No

If YES, has your agency completed a meter retrofit plan?

No

Enter the number of previously unmetered accounts fitted with meters during reporting year:

[Empty box]

Are all new service connections being metered?

Yes

Are all new service connections being billed volumetrically?

Yes

Has your agency completed and submitted electronically to the Council a written plan, policy or program to test, repair and replace meters?

Yes

Meters Matrix

Account Type	Num Of Metered Accounts	Num Of Metered Accounts Read	Num Of Metered Accounts Billed By Volume	Billing Frequency	Estimated Bills Per Year	Meter Readings Per Year
Single-Family	16357	16357	16357	Bi-monthly	0	6
Multi-Family	2275	2275	2275	Bi-monthly	0	6
Commercial	732	732	732	Bi-monthly	0	6
Institutional	182	182	182	Bi-monthly	0	6
Other	45	45	45	Bi-monthly	0	6

Number of CII Accounts with Mixed-use Meters

385

Number of CII Accounts with Mixed-use Meters Retrofitted with Dedicated Irrigation Meters during Reporting Period

0

Feasibility Study

Has your agency conducted a feasibility study to assess the merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters?

Yes

If YES, please fill in the following information:

A. When was the Feasibility Study conducted

6/29/2011

Describe, upload or provide an electronic link to the Feasibility Study Upload File

Mixed Use Feasibility study indicates it would not be cost effective to replace mixed use meters with dedicated irrigation meters.



BMP 1.3 Metering With Commodity 2013

Copy of Mixed Use Feasability study 2011.xls

At Least As effective As

Exemption

Comments:



BMP 1.4 Retail Conservation Pricing

On Track

5998 Citrus Heights WD

Canadian Water and Wastewater Association

	Customer Class	Water Rate Type	Conserving Rate?	(V') Total Revenue Commodity Charges	(M') Total Revenue Fixed Charges
	Single-Family	Increasing Block	Yes	2974802.6	4878443.7
	Multi-Family	Increasing Block	Yes	886660.64	901480.79
	Commercial	Increasing Block	Yes	492627.81	340143.03
	Institutional	Increasing Block	Yes	244971.18	54901.53
	Other	Increasing Block	Yes	3465.44	6304.9
				4602527.67	6181273.95

Calculate: V / (V + M) 43 %

Upload file:

Agency Provide Sewer Service: No

At Least As effective As

Exemption

Comments:

Option 2 Model Results for V/(V'+M')=31%. 43%>31%: On Track.



CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.1 Public Outreach

ON TRACK

5998 Citrus Heights WD

Retail

Does your agency perform Public Outreach programs? Yes

The list of wholesale agencies performing public outreach which can be counted to help the agency comply with the BMP

The name of agency, contact name and email address if not CUWCC Group 1 members

Did at least one contact take place during each quarter of the reporting year? No

Public Outreach Program List	Number
Website	4
Newsletter articles on conservation	4
Landscape water conservation media campaigns	4
General water conservation information	12
Email Messages	12
Total	36

Did at least one contact take place during each quarter of the reporting year? Yes

Number Media Contacts	Number
Articles or stories resulting from outreach	12
News releases	4
Newspaper contacts	6
Radio contacts	4
Television contacts	4
Written editorials	4
Online Advertisings	6
Total	40

Did at least one website update take place during each quarter of the reporting year? Yes

Public Information Program Annual Budget

Annual Budget Category	Annual Budget Amount
Public Outreach Budget	25000
Total Amount:	25000

Description of all other Public Outreach programs

Green Gardener classes offered

Comments:



CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.1 Public Outreach

ON TRACK

--

At Least As effective As

No

--

Exemption

No

0



CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.2 School Education Programs

ON TRACK

5998 Citrus Heights WD

Retail

Does your agency implement School Education programs? Yes

The list of wholesale agencies performing public outreach which can be counted to help the agency comply with the BMP

San Juan Water District - Wholesale

Vicki Sacksteder

Materials meet state education framework requirements? Yes

A student newspaper supplement called Be Water Smart News, Water, the Never Ending Cycle includes activities and illustrations. Written by an award-winning environmental educator and newly updated by water efficiency experts, it tells the never-en

Materials distributed to K-6? Yes

A student newspaper supplement called Be Water Smart News, Water, the Never Ending Cycle includes activities and illustrations. A Mr. Leaky "Water Conservation & You" booklet for grades K-4.

Materials distributed to 7-12 students? Yes (Info Only)

The colorful student newspaper supplement called Living Rivers of the Sacramento Valley is distributed by the Sacramento Bee to all (9-12) teachers that have subscribed for this particular water supplement or chose to participate in the Water Spots V

Annual budget for school education program: 8000.00

Description of all other water supplier education programs

Water Cycle, Water Efficiency and Conservation materials. (Grade level specific)

Comments:

At Least As effective As No

Exemption No 0



CUWCC BMP Coverage Report 2013

5998 Citrus Heights WD

Baseline GPCD 263.8

GPCD 2013 197.31

GPCD Target for 2018: 216.3

Biennial GPCD Compliance Table

ON TRACK

Year	Report	Target		Highest Acceptable Bound	
		% Base	GPCD	% Base	GPCD
2010	1	96.4%	254.30	100%	263.80
2012	2	92.8%	244.80	96.4%	254.30
2014	3	89.2%	235.30	92.8%	244.80
2016	4	85.6%	225.80	89.2%	235.30
2018	5	82.0%	216.30	82.0%	216.30



CUWCC BMP Retail Coverage Report 2014

Foundational Best Management Practices for Urban Water Efficiency

BMP 1.1 Operation Practices

ON TRACK

5998 Citrus Heights WD

1. Conservation Coordinator provided with necessary resources to implement BMPs?

Name:

Rex Meurer

Title:

Water Efficiency Coordinator

Email:

rmeurer@chwd.org

2. Water Waste Prevention Documents

WW Document Name	WWP File Name	WW Prevention URL	WW Prevention Ordinance Terms Description
Option A Describe the ordinances or terms of service adopted by your agency to meet the water waste prevention requirements of this BMP.		http://www.water.ca.gov/wateruseefficiency/docs/LandscapeOrdinanceReport_to_Leg-4-22-2011.pdf	See above uploaded file #1 Conservation Stage Requirements for Citrus Heights Water District (attachment 1). Citrus Heights Water District supports AB 1881 through the City of Citrus Heights and Sacramento County (above in URL address). CHWD is current
Option B Describe any water waste prevention ordinances or requirements adopted by your local jurisdiction or regulatory agencies within your service area.			CHWD Adopted a Stage 3 Water Warning. This requires customers to reduce their water consumption by 11-25%.
Option C Describe any documentation of support for legislation or regulations that prohibit water waste.			
Option D Describe your agency efforts to cooperate with other entities in the adoption or enforcement of local requirements consistent with this BMP.			Citrus Heights Water District participates in Regional Water Authorities Water Efficiency Program (RWA). RWA coordinates an annual effort to coordinate neighboring Water District's stage requirements and water reduction targets set by the SWRCB.
Option E Describe your agency support positions with respect to adoption of legislation or regulations that are consistent with this BMP.			



CUWCC BMP Retail Coverage Report 2014

Foundational Best Management Practices for Urban Water Efficiency

BMP 1.1 Operation Practices

ON TRACK

Option F Describe your agency efforts to support local ordinances that establish permits requirements for water efficient design in new development.			CHWD supports AB 1881 through the City of Citrus Heights and Sacramento County
--	--	--	--

At Least As effective As

No

Exemption

No

Comments:



CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.2 Water Loss Control

ON TRACK

5998 Citrus Heights WD

Completed Standard Water Audit Using AWWA Software? Yes

AWWA File provided to CUWCC? Yes

Copy_of_AWWA-WAS-v5.xls

AWWA Water Audit Validity Score? 75

Complete Training in AWWA Audit Method Yes

Complete Training in Component Analysis Process? Yes

Component Analysis? No

Repaired all leaks and breaks to the extent cost effective? Yes

Locate and Repair unreported leaks to the extent cost effective? Yes

Maintain a record keeping system for the repair of reported leaks, including time of report, leak location, type of leaking pipe segment or fitting, and leak running time from report to repair.

Yes

Provided 7 Types of Water Loss Control Info

Leaks Repairs	Value Real Losses	Value Apparent Losses	Miles Surveyed	Press Reduction	Cost Of Interventions	Water Saved (AF)
102	30969	77565	4	False	188904	

At Least As effective As

No

My Operating Efficiency Indicator is not populating. When I manually enter the data it will not save.

Exemption

No

Comments:



BMP 1.3 Metering With Commodity 2014

ON TRACK

Reporting unit name

Reporting unit number:

Citrus Heights WD

5998

Implementation

Does your agency have any unmetered service connections?

No

If YES, has your agency completed a meter retrofit plan?

No

Enter the number of previously unmetered accounts fitted with meters during reporting year:

Are all new service connections being metered?

Yes

Are all new service connections being billed volumetrically?

Yes

Has your agency completed and submitted electronically to the Council a written plan, policy or program to test, repair and replace meters?

Yes

Meters Matrix

Account Type	Num Of Metered Accounts	Num Of Metered Accounts Read	Num Of Metered Accounts Billed By Volume	Billing Frequency	Estimated Bills Per Year	Meter Readings Per Year
Single-Family	16378	16378	16378	Bi-monthly	12	12
Multi-Family	2280	2280	2280	Bi-monthly	4	4
Commercial	748	748	748	Bi-monthly	4	4
Institutional	189	189	189	Bi-monthly	1	1
Other	50	50	50	Bi-monthly	50	50

Number of CII Accounts with Mixed-use Meters

385

Number of CII Accounts with Mixed-use Meters Retrofitted with Dedicated Irrigation Meters during Reporting Period

Feasibility Study

Has your agency conducted a feasibility study to assess the merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters?

Yes

If YES, please fill in the following information:

A. When was the Feasibility Study conducted

6/29/2011

Describe, upload or provide an electronic link to the Feasibility Study Upload File

At Least As effective As

No

Exemption

No



BMP 1.4 Retail Conservation Pricing ON TRACK

5998 Citrus Heights WD

Implementation Option: Use Canadian Water Wastewater Association Rate Design Model

Canadian Water and Wastewater Association

	Customer Class	Water Rate Type	Conserving Rate?	(V') Total Revenue Comodity Charges	(M') Total Revenue Fixed Carges
	Single-Family	Uniform	Yes	2388739	5201526
	Multi-Family	Uniform	Yes	763798	723450
	Commercial	Uniform	Yes	355247	232776
	Institutional	Uniform	Yes	163883	57876
	Other	Uniform	Yes	6933	6678
				3678600	6222306

Calculate: $V / (V + M)$ 37 %

Upload file:

Agency Provide Sewer Service: No

At Least As effective As

Exemption

Comments:

I uploaded the Canadian Rate Model under the ALEA because it wont upload in option B. Option 2 Model Results for $V/(V+M)=31\%$. $37\%>31\%$: On Track.



CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.1 Public Outreach

ON TRACK

5998 Citrus Heights WD

Retail

Does your agency perform Public Outreach programs? Yes

The list of wholesale agencies performing public outreach which can be counted to help the agency comply with the BMP

The name of agency, contact name and email address if not CUWCC Group 1 members

Did at least one contact take place during each quarter of the reporting year? No

Public Outreach Program List	Number
Website	4
Newsletter articles on conservation	4
Landscape water conservation media campaigns	4
General water conservation information	12
Email Messages	4
Total	28

Did at least one contact take place during each quarter of the reporting year? Yes

Number Media Contacts	Number
Articles or stories resulting from outreach	4
News releases	4
Radio contacts	4
Television contacts	4
Total	16

Did at least one website update take place during each quarter of the reporting year? Yes

Public Information Program Annual Budget

Annual Budget Category	Annual Budget Amount
Public Outreach Budget	23000
Total Amount:	23000

Description of all other Public Outreach programs

Water Conservation classes

Comments:

At Least As effective As

Exemption



CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.2 School Education Programs

ON TRACK

5998 Citrus Heights WD

Retail

Does your agency implement School Education programs? Yes

The list of wholesale agencies performing public outreach which can be counted to help the agency comply with the BMP

San Juan Water District - Wholesale

Vicki Sacksteder

Materials meet state education framework requirements? Yes

A student newspaper supplement called Be Water Smart News, Water, the Never Ending Cycle includes activities and illustrations. Written by an award-winning environmental educator and newly updated by water efficiency experts, it tells the never-en

Materials distributed to K-6? Yes

A student newspaper supplement called Be Water Smart News, Water, the Never Ending Cycle includes activities and illustrations. A Mr. Leaky "Water Conservation & You" booklet for grades K-4.

Materials distributed to 7-12 students? Yes (Info Only)

The colorful student newspaper supplement called Living Rivers of the Sacramento Valley is distributed by the Sacramento Bee to all (9-12) teachers that have subscribed for this particular water supplement or chose to participate in the Water Spots V

Annual budget for school education program: 8000.00

Description of all other water supplier education programs

Water Cycle, Water Efficiency and Conservation materials. (Grade level specific)

Comments:

At Least As effective As No

Exemption No 0



CUWCC BMP Coverage Report 2014

5998 Citrus Heights WD

Baseline GPCD: 263.8
GPCD in 2014: 156.3
GPCD Target for 2018: 216.3

Biennial GPCD Compliance Table

ON TRACK

Year	Report	Target		Highest Acceptable Bound	
		% Base	GPCD	% Base	GPCD
2010	1	96.4%	254.30	100%	263.80
2012	2	92.8%	244.80	96.4%	254.30
2014	3	89.2%	235.30	92.8%	244.80
2016	4	85.6%	225.80	89.2%	235.30
2018	5	82.0%	216.30	82.0%	216.30

Appendix F
City/County 60 Day Notification

to be inserted

Appendix G
2015 UWMP Public Hearing Notification

to be inserted

Appendix H
2015 UWMP Adoption Resolution

to be inserted

CITRUS HEIGHTS WATER DISTRICT

DISTRICT STAFF REPORT TO BOARD OF DIRECTORS May 10, 2016 REGULAR MEETING

SUBJECT : ADOPTION OF WATER CONSERVATION ORDINANCE 01-2016
STATUS : Action Item
REPORT DATE : May 2, 2016
PREPARED BY : Hilary M. Straus, Assistant General Manager
Rex W. Meurer, Water Efficiency Coordinator

OBJECTIVE:

Adopt Ordinance 01-2016 (Attachment 1). Ordinance 01-2016 restates and reauthorizes the establishment of a Water Conservation Program, Mandatory Water Conservation Stage Regulations and progressive Enforcement Measures.

BACKGROUND AND ANALYSIS:

At the last Board meeting on April 12th, 2016 the Board was presented with a review of the history of the District's water conservation Ordinance, the District's current Water Conservation Stage Declaration and the proposed adoption of a new Water Conservation Ordinance. After Board discussion and comment on draft Ordinance 01-2016, staff inserted the edits and sent it to Legal. Legal has reviewed Ordinance 01-2016 and has vetted the document.

Key Ordinance elements include:

- Updated Water Conservation Stages 1-5
- USBR Health and Safety Condition
- Water Conservation Stage Declaration process
- Progressive Enforcement Measures

On April 29th, a Notice of Public Hearing was published in the Sacramento Gazette newspaper. A certified copy of the full text of the Ordinance (or summary) has been posted in the CHWD offices Five (5) days prior to the hearing. 15 days after adoption of the Ordinance, the Board shall publish a summary of the Ordinance with the names of those directors voting for and against the Ordinance.

PUBLIC HEARING:

- PH-1 Ordinance 01-2016 reestablishing the Water Conservation Program and Enforcement Measures
- a. Conduct a Public Hearing on Ordinance 01-2016.
 - b. Consider adoption of Ordinance 01-2016.

RECOMMENDATION:

Adopt Ordinance 01-2016. Ordinance 01-2016 will supersede and nullify Ordinance 02-91 and any amendments thereto, regarding the District's water conservation program.

ATTACHMENT 1

Ordinance 01-2016

ORDINANCE NO. 01-2016

**AN ORDINANCE ESTABLISHING A WATER CONSERVATION PROGRAM WITHIN
CITRUS HEIGHTS WATER DISTRICT**

WHEREAS, this Ordinance restates and reauthorizes the establishment of a Water Conservation Program, Mandatory Water Conservation Stage Regulations and progressive Enforcement Measures to be implemented to reduce water consumption within Citrus Heights Water District (“CHWD” or “District”); and

WHEREAS, the Ordinance is adopted pursuant to the laws of the State of California; and

WHEREAS, this Ordinance supersedes and nullifies Ordinance 02-91 and any amendments thereto, regarding the District’s Water Conservation Program; and

WHEREAS, the District recognizes that water is a valuable natural resource, which should not be wasted, and the District has the mission of providing its customers with high quality water for domestic, commercial, irrigation, and fire protection purposes at adequate pressures and equitable rates; and

WHEREAS, the District recognizes that water availability can be adversely affected by weather conditions, environmental commitments, a depleting ground-water basin, and growth; and

WHEREAS, no provisions of the District’s Water Conservation Program shall apply to fire hydrants, fire mains, fire sprinkler lines or other equipment used solely for fire protection purposes. No provisions of the District’s Water Conservation Program shall apply to any hospital, health care or convalescent facility or any other type of facility where the health and welfare would be affected by restrictions on water used, nor shall it apply to veterinary hospitals. Such facilities are encouraged to conserve water to the extent possible. However, the District’s Water Conservation Program does apply to the outdoor grounds, yards and parking areas of these facilities; and

WHEREAS, the adoption and enforcement of a comprehensive Water Conservation Program will allow the District to delay or avoid declaring a water shortage emergency pursuant to Water Code Section 350; and

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of CHWD adopt this Ordinance 01-2016 regarding the District’s Water Conservation Program, Mandatory Water Conservation Stage Regulations, and progressive Enforcement Measures.

SECTION A – WATER CONSERVATION STAGE DEFINITIONS:

STAGE 1 – NORMAL WATER SUPPLY: The District’s water supply or distribution system is able to meet all the water demands of its customers in the immediate future.

STAGE 2 – WATER ALERT: There is a probability that the District’s water supply or distribution system will not be able to meet all the water demands of its customers.

STAGE 3 – WATER WARNING: The District’s water supply or distribution system will not be able to meet all the water demands of its customers.

STAGE 4 – WATER CRISIS: SHORT-TERM (45 days or less): The District’s water supply or distribution system is not able to meet all the water demands of its customers under STAGE 3 – WATER WARNING requirements because of a temporary emergency or other short-term supply or

distribution system constraints.

STAGE 5 – WATER CRISIS: LONG-TERM: (more than 45 days): The District’s water supply or distribution system is not able to meet all the water demands of its customers under STAGE 3 – WATER WARNING requirements because of drought or other constraints on water supplies or the water distribution system that are long-term, rather than temporary in nature.

STAGE 5 – WATER EMERGENCY: SHORT-TERM (45 days or less): The District is experiencing a major failure of water supply, storage, or distribution infrastructure because of a temporary emergency or other short-term constraints.

STAGE 5 – WATER EMERGENCY: LONG-TERM (more than 45 days): The District is experiencing a major failure of water supply, water storage, or distribution infrastructure because of drought or other constraints that are long-term, rather than temporary in nature.

SECTION B – WATER CONSERVATION STAGE DECLARATION:

Upon the declaration or ratification by the Board of Directors of a specific Stage, as defined in Section A, the following Mandatory Water Conservation Stage Regulations shall be in effect:

The declaration of Short-Term Stage 4 or Short-Term Stage 5 Mandatory Water Conservation Stage Regulations may be made by the agency’s General Manager or his/her designee, subject to ratification by the agency’s Board of Directors in a regular or special session.

SECTION C – MANDATORY WATER CONSERVATION STAGE REGULATIONS – STAGES 1 – 5:

STAGE 1 – NORMAL WATER SUPPLY

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Water shall be confined to the customer’s property and shall not be allowed to run off to adjoining properties or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.
3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
4. Leaking customer pipes or faulty sprinklers shall be repaired within five (5) working days or less if warranted by the severity of the problem.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. Pool draining and refilling shall be allowed only for health, maintenance, or structural considerations.
6. Washing streets, parking lots, driveways, sidewalks, or buildings, is prohibited except as necessary for health, esthetic or sanitary purposes.
7. Customers are encouraged to take advantage of the District’s water conservation programs and rebates.

STAGE 2 – WATER ALERT

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water

are prohibited.

2. Water shall be confined to the customer's property and shall not be allowed to run off to adjoining properties or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.
3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
4. Leaking customer pipes or faulty sprinklers shall be repaired within five (5) working days or less if warranted by the severity of the problem.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. Pool draining and refilling shall be allowed only for health, maintenance, or structural considerations.
6. Washing streets, parking lots, driveways, sidewalks, or buildings, is prohibited except as necessary for health, esthetic or sanitary purposes.
7. Customers are encouraged to take advantage of the District's water conservation programs and rebates.
8. Reduce landscape and pasture irrigation by 5 – 10%. Customers with "smart" irrigation timers or controllers are asked to set their controllers to achieve 90 to 95% of the evapotranspiration"ET" rate. Drip irrigation systems are excluded from this requirement.
9. Reduce indoor water use by 5 – 10%. Contact the District for tips and techniques to reduce indoor water use.
10. Users of construction meters and fire hydrant meters will be monitored for efficient water use.

STAGE 3 – WATER WARNING

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Water shall be confined to the customer's property and shall not be allowed to run off to adjoining properties or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.
3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
4. Leaking customer pipes or faulty sprinklers shall be repaired within two (2) working days or less if warranted by the severity of the problem.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. Pool draining and refilling shall be allowed only for health, maintenance, or structural considerations.
6. Washing streets, parking lots, driveways, sidewalks, or buildings, is prohibited except as necessary for health, esthetic or sanitary purposes.

7. Customers are encouraged to take advantage of the District's water conservation programs and rebates.
8. Reduce landscape and pasture irrigation by 11 – 25%. Customers with “smart” irrigation timers or controllers are asked to set their controllers to achieve 75 to 89% of the evapotranspiration”ET” rate. Drip irrigation systems are excluded from this requirement.
9. Reduce indoor water use by 11 – 25%. Contact the District for tips and techniques to reduce indoor water use.
10. Users of construction meters and fire hydrant meters will be monitored for efficient water use.
11. Restaurants shall serve water only upon request.
12. Provisions of the Water Shortage Rate Structure may be implemented by the Board of Directors.

STAGE 4 – WATER CRISIS: SHORT-TERM

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Water shall be confined to the customer's property and shall not be allowed to run off to adjoining properties or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.
3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
4. Leaking customer pipes or faulty sprinklers shall be repaired within 24 hours or less if warranted by the severity of the problem.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. No potable water from the District's system shall be used to fill or refill swimming pools, artificial lakes, ponds or streams. Water use for ornamental ponds and fountains is prohibited.
6. Washing streets, parking lots, driveways, sidewalks, or buildings, is prohibited except as necessary for health or sanitary purposes.
7. Customers are encouraged to take advantage of the District's water conservation programs and rebates.
8. Reduce landscape and pasture irrigation by 26 – 50%. Customers with “smart” irrigation timers or controllers are asked to set their controllers to achieve 50 to 74% of the evapotranspiration ”ET” rate. Drip irrigation systems are not excluded from this requirement.
9. Reduce indoor water use by 26 - 50%. Contact the District for tips and techniques to reduce indoor water use.
10. Users of construction meters and fire hydrant meters will be monitored for efficient water use. Use of reclaimed water for construction purposes is encouraged.

11. Restaurants shall serve water only upon request.
12. Flushing of sewers or fire hydrants is prohibited except in case of emergency and for essential operations or unless specifically authorized by the District.
13. Installation of new turf or landscaping is prohibited.
14. Irrigation shall be limited to two days per week. The days of the week when outdoor water will be permitted shall be set based on the last digit of the street address. Odd addresses, streetscapes, and medians shall limit watering to Tuesdays and Saturdays; even addresses shall limit watering to Wednesdays and Sundays. No irrigation is permitted on Mondays, Thursdays and Fridays. Irrigation should be limited to the minimal amount of water necessary to keep plants and trees alive. Application of potable water to outdoor landscapes during and within 48 hours after measurable rainfall is prohibited.

STAGE 4 – WATER CRISIS: LONG-TERM

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Water shall be confined to the customer's property and shall not be allowed to run-off to adjoining properties or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.
3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
4. Leaking customer pipes or faulty sprinklers shall be repaired within 24 hours or less if warranted by the severity of the problem.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. No potable water from the District's system shall be used to fill or refill swimming pools, artificial lakes, ponds or streams. Water use for ornamental ponds and fountains is prohibited.
6. Washing streets, parking lots, driveways, sidewalks, or buildings, is prohibited except as necessary for health or sanitary purposes.
7. Customers are encouraged to take advantage of the District's water conservation programs and rebates.
8. Reduce landscape and pasture irrigation by 26 – 50%. Customers with "smart" irrigation timers or controllers are asked to set their controllers to achieve 50 to 74% of the evapotranspiration"ET" rate. Drip irrigation systems are NOT excluded from this requirement.
9. Reduce indoor water use by 26 - 50%. Contact the District for tips and techniques to reduce indoor water use.
10. Users of construction meters and fire hydrant meters will be monitored for efficient water use. Use of reclaimed water for construction purposes is encouraged.
11. Restaurants shall serve water only upon request.

12. Provisions of the Water Shortage Rate Structure may be implemented by the Board of Directors.
13. Flushing of sewers or fire hydrants is prohibited except in case of emergency and for essential operations or unless specifically authorized by the District.
14. Installation of new turf or landscaping is prohibited.
15. Irrigation shall be limited to two days per week. The days of the week when outdoor water will be permitted shall be set based on the last digit of the street address. Odd addresses, streetscapes, and medians shall limit watering to Tuesdays and Saturdays; even addresses shall limit watering to Wednesdays and Sundays. No irrigation is permitted on Mondays, Thursdays and Fridays. Irrigation should be limited to the minimal amount of water necessary to keep plants and trees alive. Application of potable water to outdoor landscapes during and within 48 hours after measurable rainfall is prohibited.
16. Water for flow testing and construction purposes from water agency fire hydrants and blow-offs is prohibited. Use of reclaimed water for construction purposes is encouraged.
17. No commitments will be made to provide service for new water service connections unless the Department of Water Resources Model Water Efficient Landscape Ordinance, found at: <http://www.water.ca.gov/wateruseefficiency/docs/MWEL09-10-09.pdf>, is followed and the plans have been approved by the county or city building department which has jurisdiction over the property location. Any authorized landscape for new connections is subject to all restrictions set forth in Stage IV.

STAGE 5 – WATER EMERGENCY: SHORT-TERM

The declaration of Short-Term Stage 5 water conservation requirements may be declared by the agency's General Manager or his/her designee and subject to ratification by the agency's Board of Directors in a regular or special session. A short-term declaration is for water shortage conditions expected for a duration of 45 days or less.

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Water shall be confined to the customer's property and shall not be allowed to run-off to adjoining properties, roadside, ditch or gutter. Care shall be taken not to water past the point of saturation.
3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
4. Leaking customer pipes or faulty sprinklers shall be repaired immediately. Water service will be suspended until repairs are made.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. No potable water from the District's system shall be used to fill or refill swimming pools, artificial lakes, ponds or streams. Water use for ornamental ponds and fountains is prohibited.
6. Washing streets, parking lots, driveways, sidewalks, or buildings, is prohibited except as necessary for health or sanitary purposes.

7. Customers are encouraged to take advantage of the District's water conservation programs and rebates.
8. Reduce landscape and pasture irrigation by more than 50%. Customers with "smart" irrigation timers or controllers are asked to set their controller to achieve 75% or more of the evapotranspiration"ET" rate. Drip irrigation systems are not excluded from these requirements.
9. Reduce indoor water use by more than 50%. Contact the District for tips and techniques to reduce indoor water use.
10. Use of construction meters and fire hydrants is prohibited except in case of emergency and for essential operations or unless specifically authorized by the District.
11. Restaurants shall serve water only upon request.
12. Flushing of sewers or fire hydrants is prohibited except in case of emergency and for essential operations or unless specifically authorized by the District.
13. Installation of new turf or landscaping is prohibited.
14. Irrigation shall be limited to two days per week. The days of the week when outdoor watering will be permitted shall be set based on the last digit of the street address. Odd addresses, streetscapes and medians shall limit watering to Tuesdays and Saturdays; Even addresses shall limit watering to Wednesdays and Sundays. No irrigation is permitted on Mondays, Thursdays and Fridays. Irrigation should be limited to a minimal amount necessary to keep plants and trees alive. Application of potable water to outdoor landscapes during and within 48 hours of measurable rainfall is prohibited.
15. Water for flow testing and construction purposes from water agency fire hydrants and blow-offs is prohibited. No potable water from the District's system shall be used for construction purposes including but not limited to dust control, compaction, or trench jetting. Use of reclaimed water for construction purposes is encouraged.
16. No commitments will be made to provide service for new water service connections unless the Department of Water Resources Model Water Efficient Landscape Ordinance, found at: <http://www.water.ca.gov/wateruseefficiency/docs/MWEL09-10-09.pdf>, is followed and the plans have been approved by the county or city building department which has jurisdiction over the property location. Any authorized landscape for new connections is subject to all restrictions set forth in Stage 4.
17. Automobiles or equipment shall be washed only at commercial establishments that use recycled or reclaimed water.
18. Landscape and pasture irrigation is prohibited.

STAGE 5 – WATER EMERGENCY: LONG-TERM

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Water shall be confined to a customer's property and shall not be allowed to run-off to adjoining properties, roadsides, ditch or gutter. Care shall be taken not to water past the point of saturation.

3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
4. Leaking customer pipes shall be repaired immediately. Water service will be suspended until repairs are made.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. No potable water from the District's system shall be used to fill or refill swimming pools, artificial lakes, ponds or streams. Water use for commercial and multi-family residential ornamental ponds and fountains is prohibited.
6. Washing streets, parking lots, driveways, sidewalks, or buildings, is prohibited except as necessary for health or sanitary purposes.
7. Customers are encouraged to take advantage of the District's water conservation programs and rebates.
8. Landscape and pasture irrigation are prohibited except for trees and shrubs.
9. Reduce indoor water use by more than 50%. Contact the District for tips and techniques to reduce indoor water use.
10. Use of construction meters and fire hydrants is prohibited except in the case of emergency and for essential operations or unless specifically authorized by the District.
11. Restaurants shall serve water only upon request.
12. Provisions of the Water Shortage Rate Structure may be implemented by the Board of Directors.
13. Flushing of sewers or fire hydrants is prohibited except in case of emergency and for essential operations or unless specifically authorized by the District.
14. Installation of new turf or landscaping is prohibited.
15. Outdoor irrigation is prohibited except for trees and shrubs.
16. Water for flow testing and construction purposes from water agency fire hydrants and blow-offs is prohibited. No potable water from the District's system shall be used for construction purposes including but not limited to dust control, compaction, or trench jetting. Use of reclaimed water for construction purposes is encouraged.
17. No commitments will be made to provide service for new water connections.
18. Automobiles or equipment shall be washed only at commercial establishments that use recycled or reclaimed water.

USBR HEALTH AND SAFETY CONDITION – Protection of Public Health and Safety

1. A severely low water supply exists. Water to be used for purposes of interior residential, sanitation, and fire protection.

2. Reduce indoor water use by more than 75%. Outdoor Irrigation is prohibited.

SECTION D – ENFORCEMENT MEASURES:

- A. Upon initial observation by District personnel or authorized designee of a violation of the Mandatory Water Conservation Stage Regulations, as outlined in Section C of the Mandatory Water Conservation Stage Regulations, the violator shall be informed of the District's current Water Conservation Stage Requirements, shall be provided with appropriate water conservation information, and offered a free Water Efficiency Review. If no contact is made, a Courtesy Notice will be left at the premises informing the customer of the observed violation. The customer will be informed of the consequences of further violations.
- B. Upon a second observation by District personnel or authorized designee of a violation of the Mandatory Water Conservation Stage Regulations, as outlined in Section C of the Mandatory Water Conservation Stage Regulations, a Notice of Violation will be issued and left at the premises informing the customer of the violation and the consequences of further violations. A \$50.00 penalty will be applied to the customer's account for noncompliance of the Mandatory Conservation Stage Requirements. The customer's water service will be terminated (at District's discretion) until the violation is corrected. Prior to a scheduled water service termination, the customer may choose to pay the penalty fee and correct the violation as specified in the required time frame designated by the current Stage Declaration.
- C. Upon a third observation by District personnel or authorized designee of a violation of the Mandatory Water Conservation Regulations, as outlined in Section C of the Mandatory Water Conservation Stage Requirements, a Notice of Violation will be issued and left at the premises informing the customer of the violation and the consequences of further violations. A \$100.00 penalty will be applied to the customer's account for noncompliance of the Mandatory Water Conservation Stage Regulations. The customer's water service will be terminated (at District's discretion) until the violation is corrected. Prior to a scheduled water service termination, the customer may choose to pay the penalty fee and correct the violation as specified in the required time frame designated by the current Stage Declaration.
- D. Upon a fourth observation by District personnel or authorized designee of a violation of the Mandatory Water Conservation Regulations, as outlined in Section C of the Mandatory Water Conservation Stage Regulations, a Notice of Violation will be issued and left at the premises informing the customer of the violation and the consequences of further violations. A \$250.00 penalty will be applied to the customer's account for noncompliance of the Mandatory Water Conservation Stage Regulations. The customer's water service will be terminated (at District's discretion) until the violation is corrected. Prior to a scheduled water service termination, the customer may choose to pay the penalty fee and correct the violation as specified in the required time frame designated by the current Stage Declaration.
- E. Customers for whom these Mandatory Water Conservation Stage Regulations may present an undue hardship may request a variance from the District. Said variance request shall be submitted to the Water Efficiency Coordinator and shall accurately describe the reason for non-compliance with specific requirements in the Mandatory Water Conservation Stage Regulations. A variance request will be approved or denied in writing by the District's General Manger or the Board of Directors.

F. Violation notices from other than the current calendar year shall be considered null and void when applying the enforcement provisions of the Mandatory Water Conservation Stage Regulations.

SECTION E:

EFFECTIVE MAY10, 2016 THIS ORDINANCE SHALL BE IN FULL FORCE AND EFFECT UPON THE DATE OF ITS PASSAGE.

PASSED AND ADOPTED by the Board of Directors of Citrus Heights Water District, this 10th day of May 2016, by the following vote, to-wit:

AYES: Directors:
NOES: Directors:
ABSENT: Directors:

SEAL

ALLEN B. DAINS, President
Board of Directors
Citrus Heights Water District

ATTEST:

ROBERT A. CHURCHILL
Secretary

DRAFT

ORDINANCE NO. 01-2016

**AN ORDINANCE ESTABLISHING A WATER CONSERVATION PROGRAM WITHIN
CITRUS HEIGHTS WATER DISTRICT**

WHEREAS, this Ordinance restates and reauthorizes the establishment of a Water Conservation Program, Mandatory Water Conservation Stage Regulations and progressive Enforcement Measures to be implemented to reduce water consumption within Citrus Heights Water District (“CHWD” or “District”); and

WHEREAS, the Ordinance is adopted pursuant to the laws of the State of California; and

WHEREAS, this Ordinance supersedes and nullifies Ordinance 02-91 and any amendments thereto, regarding the District’s Water Conservation Program; and

WHEREAS, the District recognizes that water is a valuable natural resource, which should not be wasted, and the District has the mission of providing its customers with high quality water for domestic, commercial, irrigation, and fire protection purposes at adequate pressures and equitable rates; and

WHEREAS, the District recognizes that water availability can be adversely affected by weather conditions, environmental commitments, a depleting ground-water basin, and growth; and

WHEREAS, no provisions of the District’s Water Conservation Program shall apply to fire hydrants, fire mains, fire sprinkler lines or other equipment used solely for fire protection purposes. No provisions of the District’s Water Conservation Program shall apply to any hospital, health care or convalescent facility or any other type of facility where the health and welfare would be affected by restrictions on water used, nor shall it apply to veterinary hospitals. Such facilities are encouraged to conserve water to the extent possible. However, the District’s Water Conservation Program does apply to the outdoor grounds, yards and parking areas of these facilities; and

WHEREAS, the adoption and enforcement of a comprehensive Water Conservation Program will allow the District to delay or avoid declaring a water shortage emergency pursuant to Water Code Section 350; and

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of CHWD adopt this Ordinance 01-2016 regarding the District’s Water Conservation Program, Mandatory Water Conservation Stage Regulations, and progressive Enforcement Measures.

SECTION A – WATER CONSERVATION STAGE DEFINITIONS:

STAGE 1 – NORMAL WATER SUPPLY: The District’s water supply or distribution system is able to meet all the water demands of its customers in the immediate future.

STAGE 2 – WATER ALERT: There is a probability that the District’s water supply or distribution system will not be able to meet all the water demands of its customers.

STAGE 3 – WATER WARNING: The District’s water supply or distribution system will not be able to meet all the water demands of its customers.

STAGE 4 – WATER CRISIS: SHORT-TERM (45 days or less): The District’s water supply or distribution system is not able to meet all the water demands of its customers under STAGE 3 – WATER WARNING requirements because of a temporary emergency or other short-term supply or

distribution system constraints.

STAGE 5 – WATER CRISIS: LONG-TERM: (more than 45 days): The District’s water supply or distribution system is not able to meet all the water demands of its customers under STAGE 3 – WATER WARNING requirements because of drought or other constraints on water supplies or the water distribution system that are long-term, rather than temporary in nature.

STAGE 5 – WATER EMERGENCY: SHORT-TERM (45 days or less): The District is experiencing a major failure of water supply, storage, or distribution infrastructure because of a temporary emergency or other short-term constraints.

STAGE 5 – WATER EMERGENCY: LONG-TERM (more than 45 days): The District is experiencing a major failure of water supply, water storage, or distribution infrastructure because of drought or other constraints that are long-term, rather than temporary in nature.

SECTION B – WATER CONSERVATION STAGE DECLARATION:

Upon the declaration or ratification by the Board of Directors of a specific Stage, as defined in Section A, the following Mandatory Water Conservation Stage Regulations shall be in effect:

The declaration of Short-Term Stage 4 or Short-Term Stage 5 Mandatory Water Conservation Stage Regulations may be made by the agency’s General Manager or his/her designee, subject to ratification by the agency’s Board of Directors in a regular or special session.

SECTION C – MANDATORY WATER CONSERVATION STAGE REGULATIONS – STAGES 1 – 5:

STAGE 1 – NORMAL WATER SUPPLY

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Water shall be confined to the customer’s property and shall not be allowed to run off to adjoining properties or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.
3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
4. Leaking customer pipes or faulty sprinklers shall be repaired within five (5) working days or less if warranted by the severity of the problem.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. Pool draining and refilling shall be allowed only for health, maintenance, or structural considerations.
6. Washing streets, parking lots, driveways, sidewalks, or buildings, is prohibited except as necessary for health, esthetic or sanitary purposes.
7. Customers are encouraged to take advantage of the District’s water conservation programs and rebates.

STAGE 2 – WATER ALERT

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water

are prohibited.

2. Water shall be confined to the customer's property and shall not be allowed to run off to adjoining properties or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.
3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
4. Leaking customer pipes or faulty sprinklers shall be repaired within five (5) working days or less if warranted by the severity of the problem.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. Pool draining and refilling shall be allowed only for health, maintenance, or structural considerations.
6. Washing streets, parking lots, driveways, sidewalks, or buildings, is prohibited except as necessary for health, esthetic or sanitary purposes.
7. Customers are encouraged to take advantage of the District's water conservation programs and rebates.
8. Reduce landscape and pasture irrigation by 5 – 10%. Customers with "smart" irrigation timers or controllers are asked to set their controllers to achieve 90 to 95% of the evapotranspiration"ET" rate. Drip irrigation systems are excluded from this requirement.
9. Reduce indoor water use by 5 – 10%. Contact the District for tips and techniques to reduce indoor water use.
10. Users of construction meters and fire hydrant meters will be monitored for efficient water use.

STAGE 3 – WATER WARNING

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Water shall be confined to the customer's property and shall not be allowed to run off to adjoining properties or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.
3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
4. Leaking customer pipes or faulty sprinklers shall be repaired within two (2) working days or less if warranted by the severity of the problem.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. Pool draining and refilling shall be allowed only for health, maintenance, or structural considerations.
6. Washing streets, parking lots, driveways, sidewalks, or buildings, is prohibited except as necessary for health, esthetic or sanitary purposes.

7. Customers are encouraged to take advantage of the District's water conservation programs and rebates.
8. Reduce landscape and pasture irrigation by 11 – 25%. Customers with “smart” irrigation timers or controllers are asked to set their controllers to achieve 75 to 89% of the evapotranspiration”ET” rate. Drip irrigation systems are excluded from this requirement.
9. Reduce indoor water use by 11 – 25%. Contact the District for tips and techniques to reduce indoor water use.
10. Users of construction meters and fire hydrant meters will be monitored for efficient water use.
11. Restaurants shall serve water only upon request.
12. Provisions of the Water Shortage Rate Structure may be implemented by the Board of Directors.

STAGE 4 – WATER CRISIS: SHORT-TERM

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Water shall be confined to the customer's property and shall not be allowed to run off to adjoining properties or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.
3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
4. Leaking customer pipes or faulty sprinklers shall be repaired within 24 hours or less if warranted by the severity of the problem.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. No potable water from the District's system shall be used to fill or refill swimming pools, artificial lakes, ponds or streams. Water use for ornamental ponds and fountains is prohibited.
6. Washing streets, parking lots, driveways, sidewalks, or buildings, is prohibited except as necessary for health or sanitary purposes.
7. Customers are encouraged to take advantage of the District's water conservation programs and rebates.
8. Reduce landscape and pasture irrigation by 26 – 50%. Customers with “smart” irrigation timers or controllers are asked to set their controllers to achieve 50 to 74% of the evapotranspiration ”ET” rate. Drip irrigation systems are not excluded from this requirement.
9. Reduce indoor water use by 26 - 50%. Contact the District for tips and techniques to reduce indoor water use.
10. Users of construction meters and fire hydrant meters will be monitored for efficient water use. Use of reclaimed water for construction purposes is encouraged.

11. Restaurants shall serve water only upon request.
12. Flushing of sewers or fire hydrants is prohibited except in case of emergency and for essential operations or unless specifically authorized by the District.
13. Installation of new turf or landscaping is prohibited.
14. Irrigation shall be limited to two days per week. The days of the week when outdoor water will be permitted shall be set based on the last digit of the street address. Odd addresses, streetscapes, and medians shall limit watering to Tuesdays and Saturdays; even addresses shall limit watering to Wednesdays and Sundays. No irrigation is permitted on Mondays, Thursdays and Fridays. Irrigation should be limited to the minimal amount of water necessary to keep plants and trees alive. Application of potable water to outdoor landscapes during and within 48 hours after measurable rainfall is prohibited.

STAGE 4 – WATER CRISIS: LONG-TERM

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Water shall be confined to the customer's property and shall not be allowed to run-off to adjoining properties or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.
3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
4. Leaking customer pipes or faulty sprinklers shall be repaired within 24 hours or less if warranted by the severity of the problem.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. No potable water from the District's system shall be used to fill or refill swimming pools, artificial lakes, ponds or streams. Water use for ornamental ponds and fountains is prohibited.
6. Washing streets, parking lots, driveways, sidewalks, or buildings, is prohibited except as necessary for health or sanitary purposes.
7. Customers are encouraged to take advantage of the District's water conservation programs and rebates.
8. Reduce landscape and pasture irrigation by 26 – 50%. Customers with "smart" irrigation timers or controllers are asked to set their controllers to achieve 50 to 74% of the evapotranspiration"ET" rate. Drip irrigation systems are NOT excluded from this requirement.
9. Reduce indoor water use by 26 - 50%. Contact the District for tips and techniques to reduce indoor water use.
10. Users of construction meters and fire hydrant meters will be monitored for efficient water use. Use of reclaimed water for construction purposes is encouraged.
11. Restaurants shall serve water only upon request.

12. Provisions of the Water Shortage Rate Structure may be implemented by the Board of Directors.
13. Flushing of sewers or fire hydrants is prohibited except in case of emergency and for essential operations or unless specifically authorized by the District.
14. Installation of new turf or landscaping is prohibited.
15. Irrigation shall be limited to two days per week. The days of the week when outdoor water will be permitted shall be set based on the last digit of the street address. Odd addresses, streetscapes, and medians shall limit watering to Tuesdays and Saturdays; even addresses shall limit watering to Wednesdays and Sundays. No irrigation is permitted on Mondays, Thursdays and Fridays. Irrigation should be limited to the minimal amount of water necessary to keep plants and trees alive. Application of potable water to outdoor landscapes during and within 48 hours after measurable rainfall is prohibited.
16. Water for flow testing and construction purposes from water agency fire hydrants and blow-offs is prohibited. Use of reclaimed water for construction purposes is encouraged.
17. No commitments will be made to provide service for new water service connections unless the Department of Water Resources Model Water Efficient Landscape Ordinance, found at: <http://www.water.ca.gov/wateruseefficiency/docs/MWEL09-10-09.pdf>, is followed and the plans have been approved by the county or city building department which has jurisdiction over the property location. Any authorized landscape for new connections is subject to all restrictions set forth in Stage IV.

STAGE 5 – WATER EMERGENCY: SHORT-TERM

The declaration of Short-Term Stage 5 water conservation requirements may be declared by the agency's General Manager or his/her designee and subject to ratification by the agency's Board of Directors in a regular or special session. A short-term declaration is for water shortage conditions expected for a duration of 45 days or less.

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Water shall be confined to the customer's property and shall not be allowed to run-off to adjoining properties, roadside, ditch or gutter. Care shall be taken not to water past the point of saturation.
3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
4. Leaking customer pipes or faulty sprinklers shall be repaired immediately. Water service will be suspended until repairs are made.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. No potable water from the District's system shall be used to fill or refill swimming pools, artificial lakes, ponds or streams. Water use for ornamental ponds and fountains is prohibited.
6. Washing streets, parking lots, driveways, sidewalks, or buildings, is prohibited except as necessary for health or sanitary purposes.

7. Customers are encouraged to take advantage of the District's water conservation programs and rebates.
8. Reduce landscape and pasture irrigation by more than 50%. Customers with "smart" irrigation timers or controllers are asked to set their controller to achieve 75% or more of the evapotranspiration"ET" rate. Drip irrigation systems are not excluded from these requirements.
9. Reduce indoor water use by more than 50%. Contact the District for tips and techniques to reduce indoor water use.
10. Use of construction meters and fire hydrants is prohibited except in case of emergency and for essential operations or unless specifically authorized by the District.
11. Restaurants shall serve water only upon request.
12. Flushing of sewers or fire hydrants is prohibited except in case of emergency and for essential operations or unless specifically authorized by the District.
13. Installation of new turf or landscaping is prohibited.
14. Irrigation shall be limited to two days per week. The days of the week when outdoor watering will be permitted shall be set based on the last digit of the street address. Odd addresses, streetscapes and medians shall limit watering to Tuesdays and Saturdays; Even addresses shall limit watering to Wednesdays and Sundays. No irrigation is permitted on Mondays, Thursdays and Fridays. Irrigation should be limited to a minimal amount necessary to keep plants and trees alive. Application of potable water to outdoor landscapes during and within 48 hours of measurable rainfall is prohibited.
15. Water for flow testing and construction purposes from water agency fire hydrants and blow-offs is prohibited. No potable water from the District's system shall be used for construction purposes including but not limited to dust control, compaction, or trench jetting. Use of reclaimed water for construction purposes is encouraged.
16. No commitments will be made to provide service for new water service connections unless the Department of Water Resources Model Water Efficient Landscape Ordinance, found at: <http://www.water.ca.gov/wateruseefficiency/docs/MWEL09-10-09.pdf>, is followed and the plans have been approved by the county or city building department which has jurisdiction over the property location. Any authorized landscape for new connections is subject to all restrictions set forth in Stage 4.
17. Automobiles or equipment shall be washed only at commercial establishments that use recycled or reclaimed water.
18. Landscape and pasture irrigation is prohibited.

STAGE 5 – WATER EMERGENCY: LONG-TERM

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Water shall be confined to a customer's property and shall not be allowed to run-off to adjoining properties, roadsides, ditch or gutter. Care shall be taken not to water past the point of saturation.

3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
4. Leaking customer pipes shall be repaired immediately. Water service will be suspended until repairs are made.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. No potable water from the District's system shall be used to fill or refill swimming pools, artificial lakes, ponds or streams. Water use for commercial and multi-family residential ornamental ponds and fountains is prohibited.
6. Washing streets, parking lots, driveways, sidewalks, or buildings, is prohibited except as necessary for health or sanitary purposes.
7. Customers are encouraged to take advantage of the District's water conservation programs and rebates.
8. Landscape and pasture irrigation are prohibited except for trees and shrubs.
9. Reduce indoor water use by more than 50%. Contact the District for tips and techniques to reduce indoor water use.
10. Use of construction meters and fire hydrants is prohibited except in the case of emergency and for essential operations or unless specifically authorized by the District.
11. Restaurants shall serve water only upon request.
12. Provisions of the Water Shortage Rate Structure may be implemented by the Board of Directors.
13. Flushing of sewers or fire hydrants is prohibited except in case of emergency and for essential operations or unless specifically authorized by the District.
14. Installation of new turf or landscaping is prohibited.
15. Outdoor irrigation is prohibited except for trees and shrubs.
16. Water for flow testing and construction purposes from water agency fire hydrants and blow-offs is prohibited. No potable water from the District's system shall be used for construction purposes including but not limited to dust control, compaction, or trench jetting. Use of reclaimed water for construction purposes is encouraged.
17. No commitments will be made to provide service for new water connections.
18. Automobiles or equipment shall be washed only at commercial establishments that use recycled or reclaimed water.

USBR HEALTH AND SAFETY CONDITION – Protection of Public Health and Safety

1. A severely low water supply exists. Water to be used for purposes of interior residential, sanitation, and fire protection.

2. Reduce indoor water use by more than 75%. Outdoor Irrigation is prohibited.

SECTION D – ENFORCEMENT MEASURES:

- A. Upon initial observation by District personnel or authorized designee of a violation of the Mandatory Water Conservation Stage Regulations, as outlined in Section C of the Mandatory Water Conservation Stage Regulations, the violator shall be informed of the District's current Water Conservation Stage Requirements, shall be provided with appropriate water conservation information, and offered a free Water Efficiency Review. If no contact is made, a Courtesy Notice will be left at the premises informing the customer of the observed violation. The customer will be informed of the consequences of further violations.
- B. Upon a second observation by District personnel or authorized designee of a violation of the Mandatory Water Conservation Stage Regulations, as outlined in Section C of the Mandatory Water Conservation Stage Regulations, a Notice of Violation will be issued and left at the premises informing the customer of the violation and the consequences of further violations. A \$50.00 penalty will be applied to the customer's account for noncompliance of the Mandatory Conservation Stage Requirements. The customer's water service will be terminated (at District's discretion) until the violation is corrected. Prior to a scheduled water service termination, the customer may choose to pay the penalty fee and correct the violation as specified in the required time frame designated by the current Stage Declaration.
- C. Upon a third observation by District personnel or authorized designee of a violation of the Mandatory Water Conservation Regulations, as outlined in Section C of the Mandatory Water Conservation Stage Requirements, a Notice of Violation will be issued and left at the premises informing the customer of the violation and the consequences of further violations. A \$100.00 penalty will be applied to the customer's account for noncompliance of the Mandatory Water Conservation Stage Regulations. The customer's water service will be terminated (at District's discretion) until the violation is corrected. Prior to a scheduled water service termination, the customer may choose to pay the penalty fee and correct the violation as specified in the required time frame designated by the current Stage Declaration.
- D. Upon a fourth observation by District personnel or authorized designee of a violation of the Mandatory Water Conservation Regulations, as outlined in Section C of the Mandatory Water Conservation Stage Regulations, a Notice of Violation will be issued and left at the premises informing the customer of the violation and the consequences of further violations. A \$250.00 penalty will be applied to the customer's account for noncompliance of the Mandatory Water Conservation Stage Regulations. The customer's water service will be terminated (at District's discretion) until the violation is corrected. Prior to a scheduled water service termination, the customer may choose to pay the penalty fee and correct the violation as specified in the required time frame designated by the current Stage Declaration.
- E. Customers for whom these Mandatory Water Conservation Stage Regulations may present an undue hardship may request a variance from the District. Said variance request shall be submitted to the Water Efficiency Coordinator and shall accurately describe the reason for non-compliance with specific requirements in the Mandatory Water Conservation Stage Regulations. A variance request will be approved or denied in writing by the District's General Manger or the Board of Directors.

F. Violation notices from other than the current calendar year shall be considered null and void when applying the enforcement provisions of the Mandatory Water Conservation Stage Regulations.

SECTION E:

EFFECTIVE MAY10, 2016 THIS ORDINANCE SHALL BE IN FULL FORCE AND EFFECT UPON THE DATE OF ITS PASSAGE.

PASSED AND ADOPTED by the Board of Directors of Citrus Heights Water District, this 10th day of May 2016, by the following vote, to-wit:

AYES: Directors:
NOES: Directors:
ABSENT: Directors:

SEAL

ALLEN B. DAINS, President
Board of Directors
Citrus Heights Water District

ATTEST:

ROBERT A. CHURCHILL
Secretary

CITRUS HEIGHTS WATER DISTRICT

DISTRICT STAFF REPORT TO BOARD OF DIRECTORS MAY 10, 2016 REGULAR MEETING

SUBJECT : SKYCREST WELL EQUIPPING PROJECT
STATUS : Action Item
REPORT DATE : April 18, 2016
PREPARED BY : Brian Hensley, Water Resources Supervisor

OBJECTIVE:

Consider Acceptance of the Skycrest Well Equipping Project (2013-21), and authorize execution and recording of a Notice of Completion for the Project.

BACKGROUND AND ANALYSIS:

At the January 13, 2015 Board Meeting the Board accepted the bid of R.E. Smith Contractor, Inc. in the amount of \$1,822,000.00 and established a change order contingency fund in the amount of \$90,000.00 (4.94%) for equipping the Skycrest Well. An Agreement for Construction Services between the District and R.E. Smith Contractor, Inc. was executed on February 23, 2015. This work included the pump, motor, building, electrical and mechanical components, water and storm drain piping, fencing and other site improvements.

The amount paid to the contractor is \$1,840,999.38 for material, labor, and equipment. During the course of the project, there were several revisions made resulting in two (2) additive change orders: Gate, Boring and Lights (\$11,651.36), Ornamental Fence (\$8,899.56), and one (1) deductive change order for the AC Unit (-\$1551.54), resulting in additional costs of \$18,999.38.

On February 29, 2016 a check in the amount of \$540,000.00 was received from the California Department of Water Resources' (DWR) Proposition 50 Grant awarded to RWA on behalf of Citrus Heights Water District (CHWD), with 10 percent retention of \$60,000.00 withheld until the project is complete.

RECOMMENDATION:

Adopt Resolution 09-2016 Accepting the Skycrest Well Equipping Project (2013-21), and authorize the District Secretary to execute and record a Notice of Completion for the Project.

RECORDED AT THE REQUEST OF
OWNER AND RETURN TO:

CITRUS HEIGHTS WATER DISTRICT
P.O. BOX 286
CITRUS HEIGHTS, CA 95611-0286

NO FEE FOR RECORDING
(Government Code Section 6103)

Space above for Recorders use only

NOTICE OF COMPLETION
FOR
SKYCREST WELL EQUIPPING PROJECT

1. *Project Name:* Skycrest Well Equipping Project
2. *Prime Contractor:* R. E. Smith Contractor, Inc. of Newcastle, California
3. *Date of Contract:* January 13, 2015
4. *Date of Final Inspection and Completion:* April 13, 2016
5. *Site Locations:* 5640 Southgrove Drive, a public street in the City of Citrus Heights, California, from the south property line extending northerly and easterly 420 feet adjacent to the east and north property lines, and extending westerly from the east property line, approximately 160 feet.
6. *Description of Work or Materials Furnished:* The work performed consisted, in general, of equipping a water supply well and related appurtenances including excavation, trench backfill and associated surface restorations and all other work described pursuant to the contract plans and specifications on file with Citrus Heights Water District.
7. *Owner's Property Interest in Site is:* vendee under contract
8. *Owner:* Citrus Heights Water District
9. *Signature for Owner:*

Robert A. Churchill, General Manager/Secretary
Citrus Heights Water District

VERIFICATION

I hereby verify, under the penalty of perjury, that I am the person who signed the foregoing Notice of Completion and that the facts and contents therein are true and correct to the best of my knowledge.

DATE: May 10, 2016
PLACE: Citrus Heights, California

Robert A. Churchill, General Manager/Secretary
Citrus Heights Water District

CITRUS HEIGHTS WATER DISTRICT
RESOLUTION NO. 09-2016

RESOLUTION OF THE BOARD OF DIRECTORS
ACCEPTING
SKYCREST WELL EQUIPPING PROJECT

WHEREAS, on January 13, 2015 the Board of Directors of the Citrus Heights Water District authorized the award of a contract to R. E. Smith Contractor, Inc. for the Skycrest Well Equipping Project; and

WHEREAS, on February 23, 2015 the contract was fully executed between the District and R. E. Smith Contractor, Inc.; and

WHEREAS, R. E. Smith Contractor, Inc. has completed the work for the Skycrest Well Equipping Project in accordance with the plans, specifications and contract documents prepared by the District pursuant to a final inspection on April 13, 2016.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of Citrus Heights Water District that Skycrest Well Equipping Project is accepted as complete.

BE IT FURTHER RESOLVED that the District Secretary is authorized to execute a Notice of Completion for the Skycrest Well Equipping Project and to have said Notice recorded with the Office of the Recorder of Sacramento County.

PASSED AND ADOPTED by the Board of Directors of the CITRUS HEIGHTS WATER DISTRICT this 10th day of May 2016 by the following vote, to wit:

AYES: Directors: Dains, Sheehan, Riehle
NOES: Directors:
ABSTAIN: Directors:
ABSENT: Directors:

SEAL

ALLEN B. DAINS, President
Board of Directors
Citrus Heights Water District

ATTEST:

ROBERT A. CHURCHILL, Secretary
Citrus Heights Water District

CERTIFICATION:

I, ROBERT A. CHURCHILL, hereby certify and acknowledge that Resolution 09-2016 was adopted by the Board of Directors of Citrus Heights Water District at a duly called and noticed regular meeting of said Board on the 10th day of May 2016.

ROBERT A. CHURCHILL, Secretary
Citrus Heights Water District

DRAFT

CITRUS HEIGHTS WATER DISTRICT

DISTRICT STAFF REPORT TO BOARD OF DIRECTORS MAY 10, 2016 REGULAR MEETING

SUBJECT : SAN JUAN PARK 12-INCH TRANSMISSION MAIN AND 8-INCH
DISTRIBUTION MAIN INSTALLATION PROJECT
STATUS : Action Item
REPORT DATE : April 28, 2016
PREPARED BY : Paul A. Dietrich, Project Manager

OBJECTIVE:

Consider Acceptance of the San Juan Park 12-Inch Transmission Main and 8-Inch Distribution Main Installation Project (2014-36), and authorize execution and recording of a Notice of Completion for the Project.

BACKGROUND AND ANALYSIS:

On October 22, 2015, a contract was executed with Cal Sierra Construction, Inc. for installing and connecting approximately 1,102 lineal feet (lf) of 12-inch water main, 123 lf of 8-inch water main and related appurtenances at San Juan Park in the City of Citrus Heights.

The original contract amount was \$165,774.70 with a change order contingency fund in the amount of \$16,500.00 (10.0%). The amount paid to the contractor is \$173,860.95 for material, labor and equipment. The engineering estimate for Hydroseed Restoration was 29,450 square feet. The actual square footage installed was 46,400 square feet. There were also minor variations between the bid item estimates and the actual totals measured. The additional quantities totaled \$8,086.25 (4.9%).

The project was successfully completed with staff approval and support from the Sunrise Recreation and Park District within the allotted contract schedule.

RECOMMENDATION:

Adopt Resolution 10-2016 Accepting the San Juan Park 12-Inch Transmission Main and 8-Inch Distribution Main Installation Project (2014-36), and authorize the District Secretary to execute and record a Notice of Completion for the Project.

ACTION:

Moved by Director _____, Seconded by Director _____, Carried _____

CITRUS HEIGHTS WATER DISTRICT
RESOLUTION NO. 10-2016

RESOLUTION OF THE BOARD OF DIRECTORS
ACCEPTING
SAN JUAN PARK 12-INCH TRANSMISSION MAIN AND 8-INCH
DISTRIBUTION MAIN INSTALLATION PROJECT

WHEREAS, on October 10, 2015 the Board of Directors of the Citrus Heights Water District authorized the award of a contract to Cal Sierra Construction, Inc. for the San Juan Park 12-Inch Transmission Main and 8-Inch Distribution Main Installation Project; and

WHEREAS, on October 22, 2015 the contract was fully executed between the District and Cal Sierra Construction, Inc.; and

WHEREAS, Cal Sierra Construction, Inc. has completed the work for the San Juan Park 12-Inch Transmission Main and 8-Inch Distribution Main Installation Project in accordance with the plans, specifications and contract documents prepared by the District pursuant to a final inspection on April 13, 2016.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of Citrus Heights Water District that the San Juan Park 12-Inch Transmission Main and 8-Inch Distribution Main Installation Project is accepted as complete.

BE IT FURTHER RESOLVED that the District Secretary is authorized to execute a Notice of Completion for the San Juan Park 12-Inch Transmission Main and 8-Inch Distribution Main Installation Project and to have said Notice recorded with the Office of the Recorder of Sacramento County.

PASSED AND ADOPTED by the Board of Directors of the CITRUS HEIGHTS WATER DISTRICT this 10th day of May 2016 by the following vote, to wit:

AYES: Directors: Dains, Sheehan, Riehle
NOES: Directors:
ABSTAIN: Directors:
ABSENT: Directors:

SEAL

ALLEN B. DAINS, President
Board of Directors
Citrus Heights Water District

ATTEST:

ROBERT A. CHURCHILL, Secretary
Citrus Heights Water District

CERTIFICATION:

I, ROBERT A. CHURCHILL, hereby certify and acknowledge that Resolution 10-2016 was adopted by the Board of Directors of Citrus Heights Water District at a duly called and noticed regular meeting of said Board on the 10th day of May 2016.

ROBERT A. CHURCHILL, Secretary
Citrus Heights Water District

DRAFT

RECORDED AT THE REQUEST OF
OWNER AND RETURN TO:

CITRUS HEIGHTS WATER DISTRICT
P.O. BOX 286
CITRUS HEIGHTS, CA 95611-0286

NO FEE FOR RECORDING
(Government Code Section 6103)

Space above for Recorders use only

NOTICE OF COMPLETION
FOR
SAN JUAN PARK 12-INCH TRANSMISSION MAIN AND 8-INCH DISTRIBUTION MAIN
INSTALLATION PROJECT

1. *Project Name:* San Juan Park 12-Inch Transmission Main and 8-Inch Distribution Main Installation Project
2. *Prime Contractor:* Cal Sierra Construction, Inc. of Carmichael, California
3. *Date of Contract:* October 22, 2015
4. *Date of Final Inspection and Completion:* April 13, 2016
5. *Site Locations:* San Juan Park, a public park in the City of Citrus Heights, California, from the south property line extending northerly and easterly 1,102 feet adjacent to the west and north property lines, and extending easterly from the east end of Kalamazoo Drive, and public street, approximately 123 feet.
6. *Description of Work or Materials Furnished:* The work performed consisted, in general, of installing a potable water main and related appurtenances including excavation, trench backfill and associated surface restorations and all other work described pursuant to the contract plans and specifications on file with Citrus Heights Water District.
7. *Owner's Property Interest in Site is:* vendee under contract
8. *Owner:* Citrus Heights Water District
9. *Signature for Owner:*

Robert A. Churchill, General Manager/Secretary
Citrus Heights Water District

VERIFICATION

I hereby verify, under the penalty of perjury, that I am the person who signed the foregoing Notice of Completion and that the facts and contents therein are true and correct to the best of my knowledge.

DATE: May 10, 2016
PLACE: Citrus Heights, California

Robert A. Churchill, General Manager/Secretary
Citrus Heights Water District