Citrus Heights Water District

2015 Urban Water Management Plan

June 2016

J. Crowley Group
Water Resources Planning and Policy

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CITRUS HEIGHTS WATER DISTRICT

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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 (AFY) 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 X7- 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/Conservation Program.

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 DWR 2015 UWMP 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 list 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)	
X	Individual UWMP
	Regional UWMP (RUWMP)

Table 2-3: Agency Identification	
Type of Agency (select one or both)	
	Agency is a wholesaler
X	Agency is a retailer
Fiscal or Calendar Year (select one)	
X	UWMP Tables Are in Calendar Years
	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 *(Add additional rows as needed)*
San Juan Water District

2.1 Coordination and Notification

The Sacramento region's 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; the 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 wholesale surface supply water from the San Juan Water District (SJWD) and together with the other Wholesale Customer Agencies (WCA) of SJWD (Fair Oaks Water District, Orange Vale Water Company, City of Folsom Ashland, SJWD-retail), routinely coordinate supply planning and other issues. Per the Guideline requirements, CHWD provided 20-year projections for service area population and service area demands to the SJWD. CHWD also notified the appropriate counties, cities, and SJWD of this UWMP process per the requirements as presented in Section 10.

2.2 Sacramento 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 the following 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 the following 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 (WFSE).

The WFA impacts surface water availability to the greater Sacramento 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 cutbacks through a mix of conjunctive use and conservation programs to reduce customer demands.

The CHWD is a signatory to the WFA and participates in the WFSE and conjunctive use planning efforts through the RWA and the SGA 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.

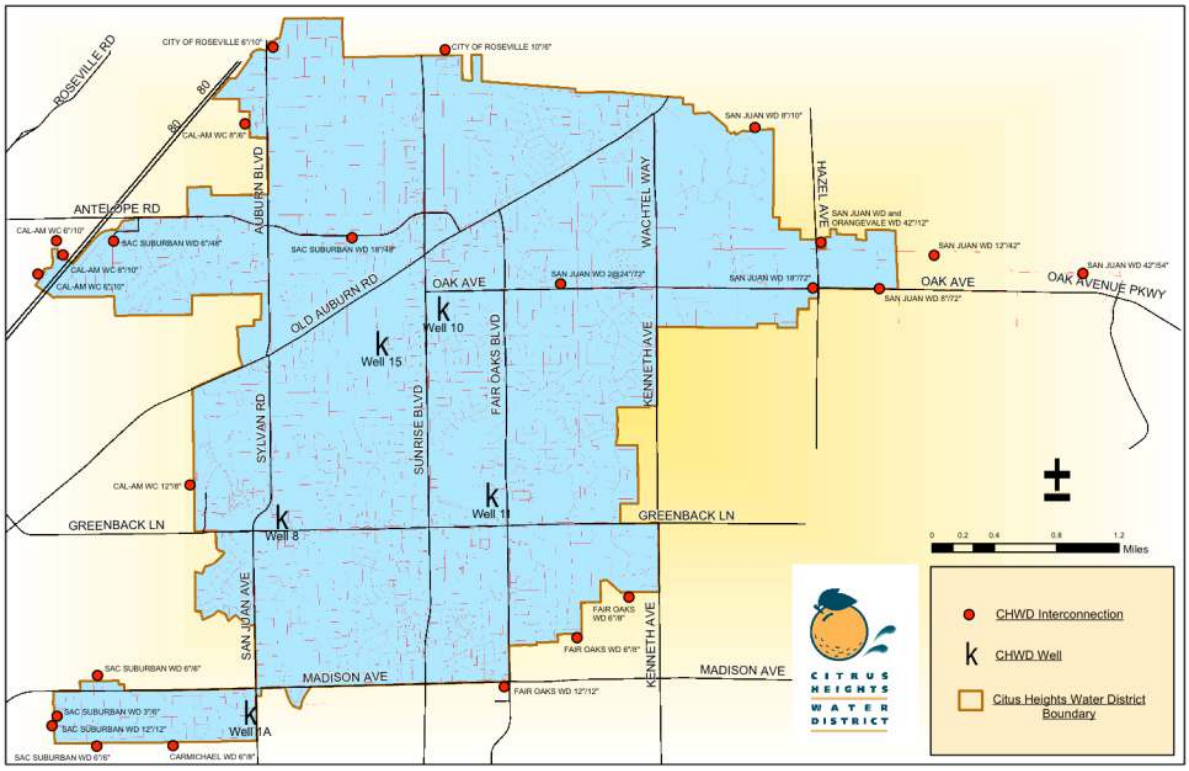


Figure 2-1. Service Area

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) and Placer County Water Agency (PCWA). 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 or wholesale customer agencies (WCAs). 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 for readiness-to-serve purposes and 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 78 percent of its total annual demand of 9,974 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 region 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 (ETo) 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 Section 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 Section 4. Population projections are summarized in Table 3-1.

Table 3-1 Retail: Population - Current and Projected

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 District 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 following 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 water attributed to 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		
Use Drop down list *May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool*	Additional Description *(as needed)*	Level of Treatment When Delivered *Drop down list*	Volume
Single Family		Drinking Water	5,779
Multi-Family		Drinking Water	1,876
Commercial		Drinking Water	967
Institutional/Governmental		Drinking Water	21
Landscape		Drinking Water	603
Other	temp., construction, etc.	Drinking Water	17
Other	all non-revenue water	Drinking Water	711
		TOTAL	9,974

The CHWD service area is included in a Sacramento Area Council of Governments (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 recently 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 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. Future 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 *(Add additional rows as needed)*	Additional Description	Projected Water Use *Report To the Extent that Records are Available*				
Use Drop down list *May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool*		2020	2025	2030	2035	2040-opt
Single Family		10,090	10,336	10,583	10,829	
Multi-Family		2,695	2,761	2,826	2,892	
Commercial		1,375	1,409	1,443	1,476	
Institutional/Governmental		268	274	281	287	
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	16,970	17,383	17,797	18,210	0

Table 4-3 summarizes the current and projected demands. There are no recycled water demands as discussed in Section 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. The interconnections are used for primary surface water deliveries and 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 *From Tables 4-1 and 4-2*	9,974	16,970	17,383	17,797	18,210	0
Recycled Water Demand *From Table 6-4*	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 the District 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 Heights. 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? (Refer to Appendix K of UWMP Guidebook) *Drop down list (y/n)*	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? *Drop down list (y/n)*	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 below and 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 Interim Target.

Table 5-1 Baselines and Targets Summary
Retail Agency or Regional Alliance Only

Baseline Period	Start Year	End Year	Average Baseline GPCD*	2015 Interim Target *	Confirmed 2020 Target*
10-15 year	*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
*Retail Agency or Regional Alliance Only**

Actual 2015 GPCD	2015 Interim Target GPCD	Optional Adjustments to 2015 GPCD Enter "0" for adjustments not used From Methodology 8					2015 GPCD *(Adjusted if applicable)*	Did Supplier Achieve Targeted Reduction for 2015? Y/N
		Extraordinary Events	Economic Adjustment	Weather Normalization	TOTAL Adjustments	Adjusted 2015 GPCD		
137	257	0	0	0	0	137	137	Yes
All values are in Gallons per Capita per Day (GPCD)								

5.2 SB X7-7 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 Section presents the water 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 Section 7. All of the surface water supplies are withdrawn from Folsom Reservoir into SJWD's water treatment plant.

CHWD maintains a wholesale Water Supply Agreement (WSA) with SJWD to provide surface water, as does SJWD with all the Wholesale Customer Agencies (WCA). The wholesale WSA does not include a volumetric 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 CHWD 42-inch transmission main and three on the SJWD 72-inch Cooperative Transmission Pipeline (CTP). 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 Mehrten Formation reaches the surface in the foothills in eastern Sacramento and western El Dorado County areas.

Supply wells in the Sacramento region draw water primarily form 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 other than disinfection prior to service.

The local groundwater basin does contain three significant major groundwater contamination areas. The United Pacific Railroad plume located northwest of the District in Roseville and the McClellan Air Force Base plume located west of the District. Both plumes are both down-gradient and not expected to impact the District's groundwater quality. A third groundwater contamination plume attributed to Aerojet's 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, the 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 plumes attributed to Aerojet.

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 DWR's 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 (SGA) 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 a 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 previous 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 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 California Statewide Groundwater Elevation Monitoring (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 basin monitoring 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

DWR 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 2,100 gallons per minute. CHWD cycles its wells weekly to maintain operational readiness-to-serve capabilities and to supplement the surface water supply. Over the last five years, this "maintenance" groundwater production has averaged approximately 957 AFY. 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.

Table 6-1 Retail: Groundwater Volume Pumped

Groundwater Type *Drop Down List* *May use each category multiple times*	Location or Basin Name	2011	2012	2013	2014	2015
Alluvial Basin	North American Sub-basin	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 Sub-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 (SASD), conducts wastewater collection, treatment, and disposal for the CHWD service area. Wastewater is collected and conveyed approximately 25 miles southwest, near Elk Grove, to the regional wastewater treatment plant.

The regional wastewater treatment plant serves most of the entire Sacramento metropolitan area. The treatment plant receives and treats approximately 150 million gallons per day (mgd) of wastewater. 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 to 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 CHWD 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? *Drop Down List*	Volume of Wastewater Collected in 2015	Name of Wastewater Treatment Agency Receiving Collected Wastewater	Treatment Plant Name	Is WWTP Located Within UWMP Area? *Drop Down List*	Is WWTP Operation Contracted to a Third Party? *(optional)* *Drop Down List*
Sacramento Area Sewer District	*Estimated*	6,850	*Sacramento County Regional Sanitation District*	Regional San	*No*	
Total Wastewater Collected from Service Area in 2015:		6,850				

NOTES: Volume estimated based on SRCSD unit factor of 310 gpd/connection.

The annual 6,850 AF volume of wastewater collected is typically associated with year-round indoor water use and in 2015 averaged 570 AF per month within the CHWD service area. This monthly average quantity compares identically with CHWD's average water use of 570 AF per month during the 2015 low water use months of January (592 AF), February (523 AF) and December (595 AF) when outdoor irrigation is minimal. Similarly, this annual volume of wastewater collected within the CHWD service area equates to 6.115 million gallons per day (MGD) on average. When factoring in CHWD's 2015 population of 65,093, the amount of wastewater collected, treated and then either recycled or discharged to the Sacramento River for downstream water supply and environmental benefit is estimated to be 94 GPCD. As noted in Section 5, CHWD's 2015 total annual GCPD was 137. Subtracting from this total the quantity of water returned to the system for other beneficial uses, CHWD's consumer's net impact on the State's surface and groundwater resources is estimated to be 43 GPCD in 2015.

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 from SRCSD 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 Opportunities Study. 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 area of Sacramento County. 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 may 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.

The City of Roseville to the north also produces recycled water at both the Pleasant Grove and Dry Creek wastewater treatment plants. However, the City's water resource strategy anticipates the City will utilize all of its recycled water for its own supply requirements.

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
SRCSD Water Recycling Opportunities Study	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 maintains interconnections with its neighboring water agencies; San Juan Water District, Orange Vale Water Company, Fair Oaks Water District, Carmichael Water District, Sacramento Suburban Water District, California American Water Company, and the City of Roseville. 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 Section 7.

6.7 Future Water Supply Projects

CHWD plans to construct an additional three wells over the next seven years 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. 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.

Table 6-7 Retail: Expected Future Water Supply Projects or Programs

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 *Drop Down List User may select more than one.*	Expected Increase in Water Supply to Agency *This may be a range*
	Drop Down List (y/n)	*If Yes, Agency Name*				
New Well 6	No		Skycrest	2016	Dry Year	1,300
New Well 7	No			2019	Dry Year	1,300
New Well 8	No			2022	Dry Year	1,300

6.8 Summary of Existing and Planned Sources of Water

Table 6-8 summarizes the 2015 water supply volumes. Projected supply needs are summarized in Table 6-9. As the SJWD WSA 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		
Drop down list *May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool*		Actual Volume	Water Quality *Drop Down List*	Total Right or Safe Yield *(optional)*
Purchased or Imported Surface Water	SJWD	9,133	Drinking Water	
Groundwater	CHWD	841	Drinking Water	
	Total	9,974		

Table 6-9 Retail: Water Supplies — Projected

Water Supply	Additional Detail on Water Supply	Projected Water Supply *Report To the Extent Practicable*									
Drop down list *May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool*		**2020**		**2025**		**2030**		**2035**		**2040** *(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
Purchased or Imported Surface Water	SJWD	16,070		16,483		16,897		17,310			
Groundwater	CHWD	900		900		900		900			
	Total	16,970		17,383		17,797		18,210			
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 2015 SJWD UWMP. Total supply availability is also influenced 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 Sub-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/water supply agreement (WSA) regarding supply allotment or shortage requirements.

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, reduced or treated. The basin elevation levels have historical 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 a groundwater accounting framework 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 new wells.

The 2015 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 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 multiple dry year projections are presented in Tables 7-3 and 7-4, respectively. The same supply availability is assumed for the single and multiple 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 surface water supply availability during each year type. Through 2035, SJWD projects they will have sufficient surface water 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 its groundwater system. CHWD assumes 900 AFY of groundwater from maintenance

pumping. Therefore the surface water purchased from SJWD is set equal to the projected demands minus 900 AFY of CHWD-produced 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	
Demand totals *(autofill from Table 4-3)*	16,970	17,383	17,797	18,210	
Difference	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	15,478	
Difference	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	15,478	
	Difference	0	0	0	0	
Second year	Supply totals	14,424	14,775	15,127	15,478	
	Demand totals	14,424	14,775	15,127	15,478	
	Difference	0	0	0	0	
Third year	Supply totals	14,424	14,775	15,127	15,478	
	Demand totals	14,424	14,775	15,127	15,478	
	Difference	0	0	0	0	
NOTES: Assume multiple dry year values same as single dry year values.						

8 Water Shortage Contingency Planning

8.1 Stages of Actions

The CHWD Water Conservation Program 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] *Numerical value as a percent*	Water Supply Condition (*Narrative description*)
Add additional rows as needed		
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	More than 50%	SJWD supply less than 52,400 AFY
USBR Health/Safety	More than 75%	USBR declares water use for health and safety only.

[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 Water Conservation Program. Restrictions and prohibitions are presented in Table 8-2. The restrictions in Table 8-2 are cumulative.

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

Stage	Restrictions and Prohibitions on End Users ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool*	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement *Drop Down List*
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
3	Other	Emergency tiered pricing.	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
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 ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool*	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement *Drop Down List*
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
USBR	Other	No outdoor irrigation.	Yes
USBR	Other	Reduce indoor demand by 75 percent.	Yes

8.3 Penalties, Charges, Other Enforcement of Prohibitions

Enforcement actions are described in detail in the CHWD Water 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 ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool*	Additional Explanation or Reference *(optional)*
Add additional rows as needed		
1	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	
3	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	
USBR	Other	Prohibit outdoor watering and reduce indoor demands 75 percent.

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 Resolution 28-2015, as included in Appendix D.

8.7 Resolution or Ordinance

The adopted Water Conservation Program Ordinance 01-2016 is presented in Appendix C.

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 five primary, three secondary, and 19 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 surface water supply for the next three years for all retailers (excluding any State emergency drought demand requirements). The supply includes CHWD's 5,000 AFY of groundwater capacity plus full supply from SJWD to meet projected demands over next three years. Projected CHWD 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 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 2015 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, the City of Citrus Heights, and the City of 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, and 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 *Drop Down List*	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 2015 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 Citrus Heights, and City of Roseville. A copy of the UWMP is available for public viewing during normal business hours at the District Office located at 6230 Sylvan Road, Citrus Heights CA 95610.

10.4 Implementation

This 2015 UWMP presents the District's plans for investigating additional supplies and continued implementation of its Water 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 water 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 production 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 rehabilitated or abandoned. New wells are installed to maintain or increase the reliable groundwater supply. The District continues to plan for well 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 WCA supply strategies. Progress and results of the conservation program will continue to be submitted to the CUWCC, Water Forum, and USBR, 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 water supply quantities.

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 SB X7-7 tables are also submitted separately to DWR per the UWMP requirements.

SB X7-7 Table 0: Units of Measurement Used in UWMP. The units selected for the analysis are acre-feet.

SB X7-7 Table 1: Baseline Period Ranges. Presents the baseline periods selected to meet each requirement.

SB X7-7 Table 2: Method for Population Estimates. The population calculation methodology is selected. CHWD utilized the DWR Population Tool.

SB X7-7 Table 3: Service Area Population. Presents the population served for each year in the baseline calculation and for 2015.

SB X7-7 Table 4: Annual Gross Water Use. Presents the annual CHWD groundwater and purchased SJWD surface water for each year in the baseline calculation and for 2015.

SB X7-7 Table 4-A: Volume Entering Distribution System. Presents the annual water into distribution system for each year in the baseline period and for 2015.

SB X7-7 Table 4-B: Indirect Recycled Water Use Deduction. Indicates there was no recycled water use during the baseline periods. This defines the allowable baseline period range of ten years.

SB X7-7 Table 4-C: Process Water Deduction Eligibility. Not used.

SB X7-7 Table 4-C.1: Process Water Deduction Eligibility. Not used.

SB X7-7 Table 4-C.2: Process Water Deduction Eligibility. Not used.

SB X7-7 Table 4-C.3: Process Water Deduction Eligibility. Not used.

SB X7-7 Table 4-C.4: Process Water Deduction Eligibility. Not used.

SB X7-7 Table 4-D: Process Water Deduction Volume. Not used.

SB X7-7 Table 5: Gallons Per Capita Per Day (GPCD). Presents the annual gpcd calculations for the baseline period and for 2015.

SB X7-7 Table 6: Gallons Per Capita Per Day. Summarizes the two baseline gpcd and for 2015.

SB X7-7 Table 7: 2020 Target Method. Selects Method 1 for the 2020 Target Method.

SB X7-7 Table 7-A: Target Method 1. Presents the baseline gpcd and 2020 target gpcd.

SB X7-7 Table 7-B Target Method 2. Not used.

SB X7-7 Table 7-C Target Method 2. Not used.

SB X7-7 Table 7-D Target Method 2 Summary. Not used.

SB X7-7 Table 7-E Target Method 3. Not used.

SB X7-7 Table 7-F: Confirm Minimum Reduction for 2020 Target. Confirms minimum target reduction from the 5-year baseline analysis.

SB X7-7 Table 8: 2015 Interim Target GPCD. Presents the 2015 interim target gpcd.

SB X7-7 Table 9. 2015 Compliance. Confirms CHWD is in compliance with the 2015 interim target gpcd.

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	

[1] *If the 2008 recycled water percent is less than 10 percent, then the first baseline period is a continuous 10-year period. If the amount of recycled water delivered in 2008 is 10 percent or greater, the first baseline period is a continuous 10- to 15-year period.*

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

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

NOTES:

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

SB X7-7 Table 3: Service Area Population		
Year		**Population**
10 to 15 Year Baseline Population		
Year 1	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
Year 11		
Year 12		
Year 13		
Year 14		
Year 15		
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: 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	18421			0		0	18,421
Year 2	1996	20785			0		0	20,785
Year 3	1997	21774			0		0	21,774
Year 4	1998	20467			0		0	20,467
Year 5	1999	23054			0		0	23,054
Year 6	2000	20555			0		0	20,555
Year 7	2001	21142			0		0	21,142
Year 8	2002	19872			0		0	19,872
Year 9	2003	18511			0		0	18,511
Year 10	2004	21101			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								**13,712**
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								**18,823**
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 4-A: Volume Entering the Distribution System(s)
Complete one table for each source.

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

Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	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:				
☐	The supplier's own water source			
☒	A purchased or imported source			
Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	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
Year 2	1996			0		0			0	0
Year 3	1997			0		0			0	0
Year 4	1998			0		0			0	0
Year 5	1999			0		0			0	0
Year 6	2000			0		0			0	0
Year 7	2001			0		0			0	0
Year 8	2002			0		0			0	0
Year 9	2003			0		0			0	0
Year 10	2004			0		0			0	0
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
5 Year Baseline - Indirect Recycled Water Use										
Year 1	2003			0		0			0	0
Year 2	2004			0		0			0	0
Year 3	2005			0		0			0	0
Year 4	2006			0		0			0	0
Year 5	2007			0		0			0	0
2015 Compliance - Indirect Recycled Water Use										
2015				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 5: Gallons Per Capita Per Day (GPCD)				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Annual Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use (GPCD)
10 to 15 Year Baseline GPCD				
Year 1	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
Year 11	0	0	0	
Year 12	0	0	0	
Year 13	0	0	0	
Year 14	0	0	0	
Year 15	0	0	0	
10-15 Year Average Baseline GPCD				**286**
5 Year Baseline GPCD				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use
Year 1	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: 2020 Target Method *Select Only One*		
Target Method		Supporting Documentation
☒	Method 1	SB X7-7 Table 7A
☐	Method 2	SB X7-7 Tables 7B, 7C, and 7D *Contact DWR for these tables*
☐	Method 3	SB X7-7 Table 7-E
☐	Method 4	Method 4 Calculator
NOTES:		

SB X7-7 Table 7-A: Target Method 1 20% Reduction	
10-15 Year Baseline GPCD	2020 Target GPCD
286	229
NOTES:	

SB X7-7 Table 7-F: Confirm Minimum Reduction for 2020 Target			
5 Year Baseline GPCD *From SB X7-7 Table 5*	Maximum 2020 Target*	Calculated 2020 Target *Fm Appropriate Target Table*	Confirmed 2020 Target
258	245	229	229
** Maximum 2020 Target is 95% of the 5 Year Baseline GPCD*			
NOTES:			

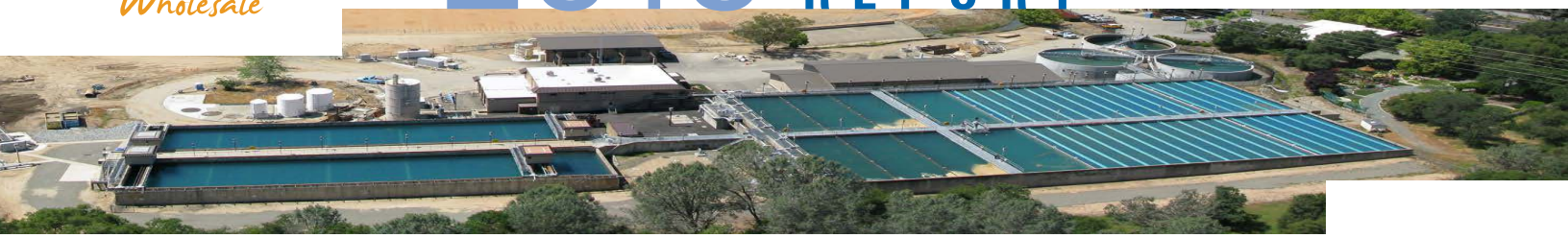
SB X7-7 Table 8: 2015 Interim Target GPCD		
Confirmed 2020 Target *Fm SB X7-7 Table 7-F*	10-15 year Baseline GPCD *Fm SB X7-7 Table 5*	2015 Interim Target GPCD
229	286	257
NOTES:		

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
2015 Consumer Confidence Report (CCR)

SAN JUAN WATER Wholesale

2015 CONSUMER CONFIDENCE REPORT



This report is published by the San Juan Wholesale Customer Agencies: San Juan Water District, Citrus Heights Water District, Fair Oaks Water District and Orange Vale Water District. San Juan Water District provides reliable, high-quality water supplies to our customers. We serve nearly 184,000 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 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 – 91.6% surface water, 8.4% groundwater
Fair Oaks Water District – 89.3% surface water, 10.7% 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 treatment with 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.

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).

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 Family 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 Family Agencies test selected customer taps 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/sdwa/ucmr/ucmr3/index.cfm. Citrus Heights Water District and Fair Oaks Water District conducted sampling in 2014. Orange Vale Water Company and San Juan Water District conducted sampling in 2015. Several constituents were detected, none at any level of human health concern.

CONSTITUENT	Range (ug/L)	Average (ug/L)	Human Health Advisory	Potential Sources
HCFC-22 (chlorodifluoromethane)	ND-0.11 [1]	ND [1]	None	Refrigerant and propellant
Vanadium	1.1-11 [1] 0.52-8.1 [2] 0.47-1.0 [3] 0.63-1.2 [4]	7.2 [1] 3.4 [2] 0.67 [3] 1 [4]	State Board Notification Level – 50 ug/L	Naturally-occurring metal
Molybdenum	ND-1 [1] ND-1.7 [2]	ND [1,2]	USEPA Lifetime Health Advisory – 40 ug/L	Naturally-occurring metal
Strontium	46-460 [1] 46-220 [2] 52-64 [3] 46-59 [4]	245 [1] 120 [2] 59.8 [3] 53 [4]	USEPA Lifetime Health Advisory – 4,000 ug/L	Naturally-occurring metal
Chlorate	ND-40 [1] ND-240 [2]	ND [1] 37 [2]	State Board Notification Level – 800 ug/L	Oxidant used in pyrotechnics and possible by-product of water treatment
Testosterone	ND-0.00013 [1]	ND [1]	None	Mammalian hormone

1 – Citrus Heights Water District (wells, treated surface water from SJWD, and distribution system - 2014)
2 – Fair Oaks Water District (wells, treated surface water from SJWD, and distribution system - 2014)
3 – SJWD (treated surface water and distribution system - 2015)
4 – Orange Vale Water Company (treated surface water from SJWD and distribution system - 2015)

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
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 PHGs (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 – 2015 TABLE OF DETECTED CONSTITUENTS

DETECTED PRIMARY DRINKING WATER CONSTITUENTS regulated to protect your health

CONSTITUENT	UNITS	PHG or (MCLG) or [MRDLG]	MCL or [MRDL]	San Juan Surface Water Including Orange Vale Water Company(a)			Citrus Heights Groundwater			Fair Oaks Groundwater			MAJOR SOURCES
				RANGE	AVERAGE	YEAR SAMPLED	RANGE	AVERAGE	YEAR SAMPLED	RANGE	AVERAGE	YEAR SAMPLED	
Arsenic	PPB	0.004	10	ND	ND	2013	ND–3.7	ND	2013	ND - 2.2	ND	2006, 2012	Erosion of natural deposits; runoff from orchards; glass and electronics production waste
Barium	PPM	2	1	ND	ND	2013	ND–0.1	ND	2013	ND	ND	2006, 2012	Erosion of natural deposits and wastes from metal refineries
Fluoride	PPM	1	2.0	ND	ND	2013	ND–0.18	0.12	2013	ND - 0.11	ND	2006, 2012	Erosion of natural deposits; discharge from fertilizer and aluminum factories
Hexavalent Chromium	PPB	0.02	10	ND	ND	2015	ND–2.3	1.4	2014	ND–2.5	ND	2014	Erosion from natural deposits or discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities
Nitrate (as N)	PPM	10	10	ND	ND	2015	1.2 - 2.9	1.8	2014	ND - 0.5	0.5	2007, 2015	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Chlorine Residual (distribution system)	PPM	[4]	[4]	0.16–0.82 (0.15–0.89)	0.53 (0.5)	2015	0.22–0.8	0.54	2015	0.2 - 1.08	0.48	2015	Drinking water disinfectant added for treatment
Total Trihalomethanes (distribution system)	PPB	N/A	80	43–60 (33–61)	48.5 (47)	2015	ND–54	42	2015	ND–48	17.0	2015	By-product of drinking water disinfection
Haloacetic Acids (distribution system)	PPB	N/A	60	19–26 (19–30)	23.5 (24.5)	2015	ND–38	27	2015	ND–26	8.0	2015	By-product of drinking water disinfection
Control of Disinfection By-Product Precursors (TOC) (treated water) (b)	PPM	N/A	TT = 2	1.1–3.2	1.3	2015	NR	N/A	N/A	NR	N/A	N/A	Various natural and manmade sources

CONSTITUENT	UNITS	PHG or (MCLG)	MCL	LEVEL FOUND		YEAR SAMPLED	LEVEL FOUND		YEAR SAMPLED	LEVEL FOUND		YEAR SAMPLED	MAJOR SOURCES
Turbidity (b)	NTU	N/A	TT = 1 NTU	0.035		2015	NR		N/A	NR		N/A	Soil runoff
	% Samples	N/A	TT = ≤0.3 NTU	100		2015	NR		N/A	NR		N/A	

	UNITS	PHG or (MCLG)	AL	90th PERCENTILE	# SAMPLED/ # EXCEED AL	YEAR SAMPLED	90th PERCENTILE	# SAMPLED/ # EXCEED AL	YEAR SAMPLED	90th PERCENTILE	# SAMPLED/ # EXCEED AL	YEAR SAMPLED	MAJOR SOURCES
Copper	PPM	0.3	1.3	0.072 (0.076)	30/0 (31/0)	2015 (2015)	0.074	30/0	2015	0.054	30/0	2013	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

DETECTED SECONDARY DRINKING WATER CONSTITUENTS regulated for aesthetic qualities

CONSTITUENT	UNITS	PHG or (MCLG)	MCL	San Juan Surface Water including Orange Vale Water Company			Citrus Heights Groundwater			Fair Oaks Groundwater			MAJOR SOURCES
				RANGE	AVERAGE	YEAR SAMPLED	RANGE	AVERAGE	YEAR SAMPLED	RANGE	AVERAGE	YEAR SAMPLED	
Total Dissolved Solids	PPM	N/A	1,000	41	41	2013	190-260	228	2013	100–400	181	2006, 2012	Runoff/leaching from natural deposits
Specific Conductance	µS/CM	N/A	1,600	58-84	72	2013	260–350	294	2013	140–550	263	2006, 2012	Substances that form ions when in water
Sulfate	PPM	N/A	500	4.8	4.8	2013	7.8-12	9.7	2013	3.6–28	10.8	2006, 2012	Runoff/leaching from natural deposits
Chloride	PPM	N/A	500	2.8	2.8	2013	10–18	15	2013	3.1–23	6.9	2006, 2012	Runoff/leaching from natural deposits
Turbidity	NTU	N/A	5	0.017–0.035	0.025	2015	ND–0.1	ND	2013	0.12–0.6	0.35	2006, 2012	Soil runoff
Odor	TON	N/A	3	2	2	2013	ND	ND	2013	ND	ND	2006, 2012	Naturally-occurring organic materials

DETECTED UNREGULATED DRINKING WATER CONSTITUENTS (c)

CONSTITUENT	UNITS	PHG or (MCLG)	NL	San Juan Surface Water Including Orange Vale Water Company			Citrus Heights Groundwater			Fair Oaks Groundwater			MAJOR SOURCES
				RANGE	AVERAGE	YEAR SAMPLED	RANGE	AVERAGE	YEAR SAMPLED	RANGE	AVERAGE	YEAR SAMPLED	
Hardness	PPM	N/A	NONE	20	20	2013	95-150	121	2013	47–210	86.8	2006, 2012	Hardness is the sum of polyvalent cations present in the water, generally naturally occurring magnesium and calcium.
Sodium	PPM	N/A	NONE	2.5	2.5	2013	11–23	18.8	2013	4.9–32	11.6	2006, 2012	Naturally occurring salt in the water
Calcium	PPM	N/A	NONE	5.2	5.2	2013	23-33	27	2013	12–43	19.6	2006, 2012	Erosion of natural deposits
Magnesium	PPM	N/A	NONE	1.7	1.7	2013	9.4-16	12.7	2013	4.2–25	9.2	2006, 2012	Erosion of natural deposits

(a)– Data for OVWC 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.

SAN JUAN WATER
Wholesale

2015 CONSUMER CONFIDENCE REPORT

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

Board of Directors
Edward J. "Ted" Costa
Kenneth H. Miller
Dan Rich
Pamela Tobin
Bob Walters

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 SINCE 1854

CITRUS HEIGHTS WATER DISTRICT

FAIR OAKS WATER DISTRICT

ORANGE VALE WATER CO.

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 DuBose
(916) 988-1693
mdubose@orangevalewater.com
www.orangevalewater.com

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

LEARN MORE ABOUT YOUR WATER AT WWW.SJWD.ORG

Appendix C
Citrus Heights Water District Water Conservation Program

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 4 – 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/MWELO09-10-09.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/MWELO09-10-09.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.

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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

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

WHERAS, 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:

1. 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 748 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

S E A L

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

ATTEST:

ROBERT A. CHURCHILL, Secretary

Appendix E
CUWCC 2013/2014 Coverage Reports

CUWCC BMP Retail Coverage Report 2013

Foundational Best Managemant 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/LandscapOrdinanceReport_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 annnual 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 Managemant 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 Repar 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 No

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 No

Comments:

BMP 1.3 Metering With Commodity 2013

ON TRACK

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:

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 Feasability 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	No

Exemption	No	

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 No

Exemption No

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 quater 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 quater 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 quater 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 Sacksteader

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

		Target		Highest Acceptable Bound	
Year	Report	% 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 Managemant 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/LandscapOrdinanceReport_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 annnual 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 Managemant 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 Repar 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	

CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

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 No

Exemption No

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 quater 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 quater 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 quater 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 No

Exemption No 0

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 Sacksteader

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)

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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

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2018	5	82.0%	**216.30**	82.0%	**216.30**

Appendix F
60-Day Notification

CITRUS HEIGHTS WATER DISTRICT

6230 Sylvan Road
P.O. Box 286
Citrus Heights
California
95611- 0286

phone
916/ 725-6873
fax
916/ 725-0345
website
www.chwd.org

March 1, 2016

Mr. Richard Plecker
Water Utilities Manager
City of Roseville
2005 Hilltop Circle
Roseville, CA 95747

Subject: Citrus Heights Water District 2015 UWMP Notice

Dear Mr. Richard Plecker,

The Citrus Heights Water District is preparing its 2015 Urban Water Management Plan (UWMP). The UWMP is required to be submitted to the California Department of Water Resources every five years (Water Code Sections 10610-10656). The law requires a water agency notify the county and city in which it serves water of its UWMP update. The District is updating its UWMP for 2015 and intends to present its findings at a public hearing in May. If you have any questions or comments regarding this process please contact me at (916) 725-6873.

Rex Meurer

Water Efficiency Coordinator

Board of Directors
Allen B. Dains
Caryl F. Sheehan
Raymond A. Riehle

General Manager/ Secretary
Robert A. Churchill

Assistant General Manager/Treasurer
Hilary M. Straus

Accounting Supervisor Assessor/Collector
Susan K. Sohal

CITRUS HEIGHTS WATER DISTRICT

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916/ 725-6873
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www.chwd.org

March 1, 2016

David Boesch
County Executive Office
Placer County
175 Fulweiler Avenue
Auburn, CA 95603

Subject: Citrus Heights Water District 2015 UWMP Notice

Dear David Boesch,

The Citrus Heights Water District is preparing its 2015 Urban Water Management Plan (UWMP). The UWMP is required to be submitted to the California Department of Water Resources every five years (Water Code Sections 10610-10656). The law requires a water agency notify the county and city in which it serves water of its UWMP update. The District is updating its UWMP for 2015 and intends to present its findings at a public hearing in May. If you have any questions or comments regarding this process please contact me at (916) 725-6873.

Rex Meurer

Water Efficiency Coordinator

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March 1, 2016

Colleen McDuffee
Planning Manager
City of Citrus Heights
7927 Auburn Blvd
Citrus Heights, CA 95610

Subject: Citrus Heights Water District 2015 UWMP Notice

Dear Ms. Colleen McDuffee,

The Citrus Heights Water District is preparing its 2015 Urban Water Management Plan (UWMP). The UWMP is required to be submitted to the California Department of Water Resources every five years (Water Code Sections 10610-10656). The law requires a water agency notify the county and city in which it serves water of its UWMP update. The District is updating its UWMP for 2015 and intends to present its findings at a public hearing in May. If you have any questions or comments regarding this process please contact me at (916) 725-6873.

Rex Meurer

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March 1, 2016

Leighann Moffitt
Planning Director
Sacramento County Community Development
827 7th Street Room 225
Sacramento, CA 95814

Subject: Citrus Heights Water District 2015 UWMP Notice

Dear Leighann Moffitt,

The Citrus Heights Water District is preparing its 2015 Urban Water Management Plan (UWMP). The UWMP is required to be submitted to the California Department of Water Resources every five years (Water Code Sections 10610-10656). The law requires a water agency notify the county and city in which it serves water of its UWMP update. The District is updating its UWMP for 2015 and intends to present its findings at a public hearing in May. If you have any questions or comments regarding this process please contact me at (916) 725-6873.

Rex Meurer

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General Manager/ Secretary
Robert A. Churchill

Assistant General Manager/Treasurer
Hilary M. Straus

Accounting Supervisor Assessor/Collector
Susan K. Sohal

Appendix G
2015 UWMP Public Hearing Notification

THE SACRAMENTO
Gazette
770 L St., Suite 950
Sacramento, CA 95814-3361
(916) 567-9654 • Fax: (888) 567-1193

FILING STAMP

CITRUS HEIGHTS WATER DISTRICT
LISA SMOOT
PO BOX 286
CITRUS HEIGHTS CA 95611-0286

Proof of Publication
(C.C.P. §2015.5)

State of California)
County of Sacramento)

Invitation for Bid
2015 Urban Water Management

I am a citizen of the United States; I am over the age of 18 years. I am the principal clerk of THE SACRAMENTO GAZETTE, a community newspaper printed and published in the English language, and adjudged to be a Newspaper of General Circulation for the City and County of Sacramento by the Sacramento County Superior Court on August 12, 1997. That the notice, of which the annexed is a printed copy, has been published in each regular and entire issue of THE SACRAMENTO GAZETTE and not in any supplement thereof on the following date(s), to wit:

05-20-16
05-27-16

Executed on: 05-27-16
at Sacramento, California

I certify under penalty of perjury that the foregoing is true and correct:

David A. Fong, Publisher

THE SACRAMENTO GAZETTE
(916) 567-9654

■ CITRUS HEIGHTS WATER DISTRICT ■

NOTICE OF HEARING FOR 2015 URBAN WATER MANAGEMENT PLAN

A Public Hearing will be held on June 14, 2016 at 6:30 p.m. at the office of the Citrus Heights Water District (CHWD), located at 6230 Sylvan Rd., Citrus Heights, CA, 95610, to consider a draft of CHWD's 2015 Urban Water Management Plan.

The purpose of this Public Hearing is to present the draft Plan to the CHWD Board of Directors and accept and respond to any public questions or comments regarding the draft Plan. This Plan is being prepared to provide guidelines for long-term water management for CHWD. Spoken or written comments on the draft Plan may be presented at the Public Hearing, and written comments may be submitted in advance of the Hearing at the aforementioned address. Copies of the draft Plan may be reviewed at the aforementioned address or at CHWD's website, www.chwd.org. Questions or comments about the draft Plan may be directed to Water Efficiency Coordinator Rex Meurer at (916) 725-6873.

CITRUS HEIGHTS WATER DISTRICT
By Robert A. Churchill, General Manager

Ad#: 78542 — 05-20-16 05-27-16

CITRUS HEIGHTS WATER DISTRICT

6230 Sylvan Road
P.O. Box 286
Citrus Heights
California
95611- 0286

phone
916/ 725-6873
fax
916/ 725-0345
website
www.chwd.org

May 17, 2016

Leighann Moffitt
Planning Director
Sacramento County Community Development
827 7th Street Room 225
Sacramento, CA 95814

Subject: Citrus Heights Water District 2015 UWMP Notice

Dear Leighann Moffitt,

The Citrus Heights Water District is preparing its 2015 Urban Water Management Plan (UWMP). The UWMP is required to be submitted to the California Department of Water Resources every five years (Water Code Sections 10610-10656). The law requires a water agency to notify the county and city in which it serves water of its UWMP public hearing. The District will conduct a public hearing for its 2015 UWMP on June 14, 2016, 6:30 PM at the District offices located at 6230 Sylvan Rd, Citrus Heights, CA 95610.

If you have any questions or comments regarding this process please contact me at (916) 725-6873.

Thank you,

Rex Meurer
Water Efficiency Coordinator

Board of Directors
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Caryl F. Sheehan
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May 17, 2016

Henry Tingle
City Manager
City of Citrus Heights
6237 Fountain Square Drive
Citrus Heights, CA 95621

Subject: Citrus Heights Water District 2015 UWMP Notice

Dear Henry Tingle,

The Citrus Heights Water District is preparing its 2015 Urban Water Management Plan (UWMP). The UWMP is required to be submitted to the California Department of Water Resources every five years (Water Code Sections 10610-10656). The law requires a water agency to notify the county and city in which it serves water of its UWMP public hearing. The District will conduct a public hearing for its 2015 UWMP on June 14, 2016, 6:30 PM at the District offices located at 6230 Sylvan Rd, Citrus Heights, CA 95610.

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Thank you,

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Water Efficiency Coordinator

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Water Utilities Manager
City of Roseville
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Roseville, CA 95747

Subject: Citrus Heights Water District 2015 UWMP Notice

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May 17, 2016

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County Executive Office
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Appendix H
2015 UWMP Adoption Resolution

CITRUS HEIGHTS WATER DISTRICT
RESOLUTION NO. 15-2016

RESOLUTION OF THE BOARD OF DIRECTORS
OF CITRUS HEIGHTS WATER DISTRICT
ADOPTING THE 2015 URBAN WATER MANAGEMENT PLAN

WHEREAS, the Citrus Heights Water District Urban Water Management Plan is prepared and submitted to fulfill the requirements of the California Urban Water Management Planning Act of 1983, Assembly Bill No. 797, Water Code Section 10610 et seq.; and

WHEREAS, the District has prepared and made available for public review a draft Urban Water Management Plan, and a properly noticed public hearing regarding said Plan was conducted by the Board of Directors on June 14, 2016; and

WHEREAS, the Board of Directors intends that the Plan shall serve as a guideline to assist the District in its efforts to encourage conservation and efficient use of water.

NOW THEREFORE, BE IT RESOLVED by the Board of Directors of Citrus Heights Water District as follows:

1. The 2015 Urban Water Management Plan is hereby adopted; and the J. Crowley Group; is hereby authorized and directed to file the Plan with the California Department of Water Resources; and

2. The District General Manager is hereby directed to implement the programs as set forth in the 2015 Urban Water Management Plan, subject to review and express authorization of the Board of Directors for all actions requiring the approval of the Board of Directors.

PASSED AND ADOPTED by the Board of Directors of the CITRUS HEIGHTS WATER DISTRICT this 14th day of June 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