




South Tahoe Public Utility District



2015 Urban Water Management Plan



Final
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J. CROWLEY GROUP
WATER RESOURCES PLANNING AND POLICY



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ENVIRONMENTAL CONSULTANTS

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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 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 calls for the state to achieve a 20 percent reduction in urban per capita water use by December 31, 2020, a requirement known as 20x2020. 20x2020 mandates 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 the conservation program.
- A description of the Water Shortage Contingency Plan.

The 2015 UWMP must submit data in specific tables to the DWR, which has provided these tables, and this UWMP utilizes the provided tables without changes to format or organization. The South Tahoe Public Utilities District (STPUD) 2015 UWMP presents each required element per the DWR 2015 Urban Water Management Plan Guidelines.

This UWMP is organized to follow the DWR 2015 UWMP Guidelines recommended organization and data tables.

2 Plan Preparation

STPUD provides potable water service to over 3,000 connections per year 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
0910002	South Tahoe PUD	14,077	5,241
TOTAL		14,077	5,241

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

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

Table 2-4 Retail: Water Supplier Information Exchange
The retail supplier has informed the following wholesale supplier(s) of projected water use in accordance with CWC 10631.
Wholesale Water Supplier Name <i>(Add additional rows as needed)</i>
None

2.1 *Coordination and Notification*

The Tahoe Regional Planning Agency (TRPA) is a two-state regional environmental planning agency tasked with planning efforts in the Tahoe Basin. The District regularly participates in the TRPA water, wastewater, and environmental planning efforts. The District notified TRPA, City of South Lake Tahoe, El Dorado County, and the El Dorado County Water Agency of the UWMP preparation, and contacted each respective agency as necessary to develop the UWMP. Agency and public outreach efforts are presented in Chapter 10 per the UWMP Guideline requirements.

3 System Description

The South Tahoe Public Utilities District is a special district that was established in 1950. The District provides water and sewer service throughout the South Lake Tahoe area. The District is the largest water purveyor in the Lake Tahoe Basin. Water supply is provided by 14 active supply wells, and the District operates a total of 23 wells. In addition to the supply wells, the District maintains several standby wells, several sampling and monitoring wells, and several inactive wells. The storage and distribution system is comprised of 16 booster pump stations, 23 storage tanks, 26 pressure-reducing valves, and 320 miles of potable water pipe. Due to the topography of the District's service area, the overall distribution system is separated into 15 pressure zones.

3.1 Service Area Description

The District's service area encompasses 27,000 acres in eastern El Dorado County on the southern shore of Lake Tahoe. The service area extends west to include Emerald Bay, east to the California Nevada State Line, and south to include Christmas Valley. The service area includes most, but not all, of the City of South Lake Tahoe and portions of unincorporated El Dorado County. Figure 3-1 illustrates the District boundaries.

The District provides water supply within the incorporated City of South Lake Tahoe and the unincorporated communities of Montgomery Estates, Tahoe Paradise, Meyers, Angora Highlands, Fallen Leaf Lake, and Christmas Valley. Lukins Brothers, Lakeside Water Companies, and Tahoe Keys Water Company are small private water providers within or adjacent to the District's service area. These private water companies are mostly built out and serve approximately 2,600 total connections.

The service area contains a unique mix of customer types. The area is a tourist destination with extensive lodging facilities and also contains a large number of vacation homes. The seasonal fluctuations in the tourist season also affect the seasonal nature of the workforce as well. These demographics affect the District's water demands resulting in seasonal and weekly variations much different than a typical California city.

All land in the Lake Tahoe region, including the City and the District's service area, falls under the jurisdiction of the TRPA as defined in the Tahoe Regional Planning Compact (Compact). The Compact requires that all local jurisdiction planning be consistent with a series of Environmental Thresholds. The TRPA Environmental Thresholds effectively provide a growth control mechanism for the region, which in turn impacts projected water demands.

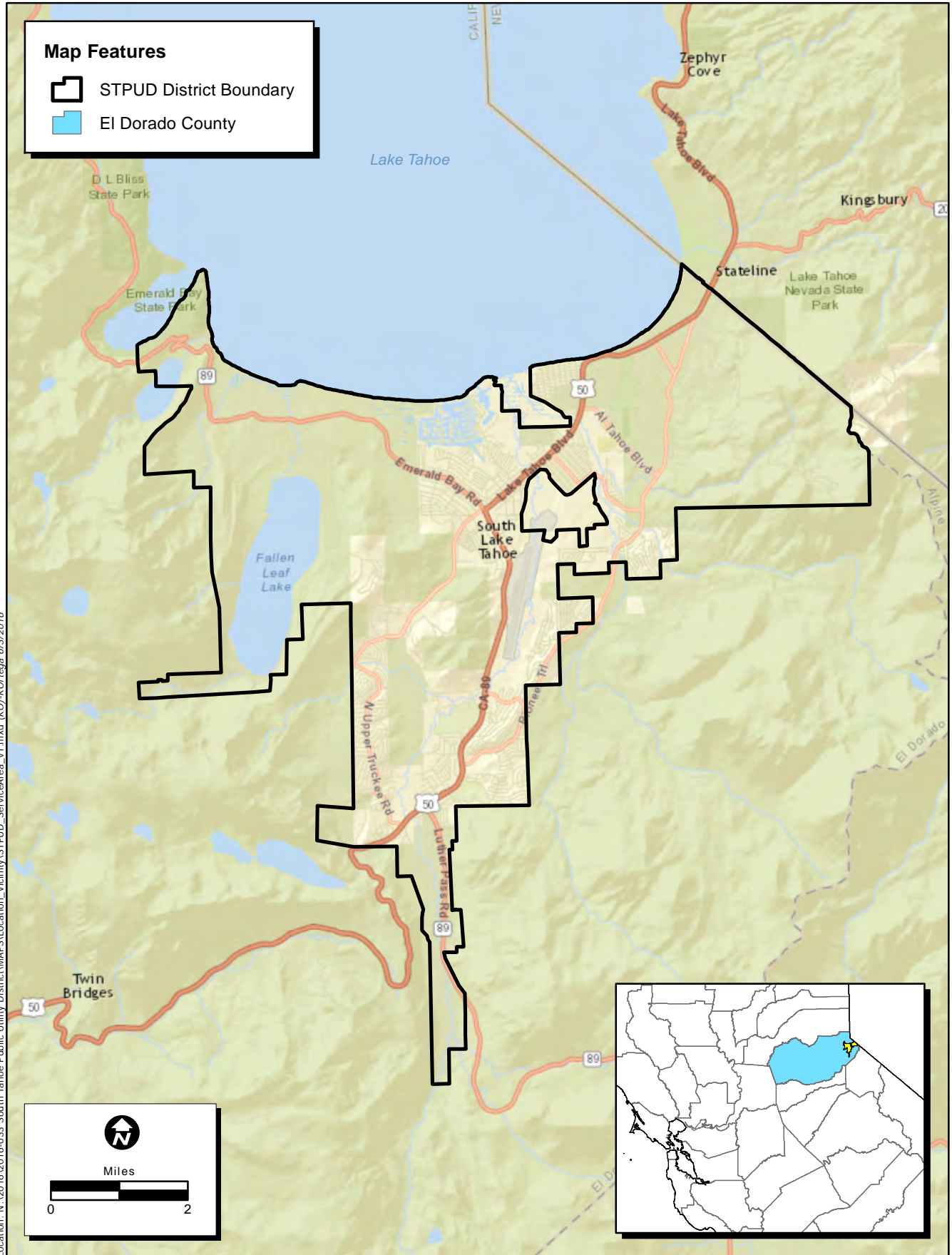


Figure 3-1. South Tahoe Public Utilities District Boundary

2016-033 South Tahoe Public Utility District

Location: N:\2016\2016-033_South Tahoe Public Utility District\MAPS\Location_Vicinity\STPUD_ServiceArea_v1.mxd (KO)Kortega 6/3/2016

The STPUD service area receives significant precipitation during the winter in the form of snow. Some precipitation occurs during the other seasons in the form of rain. The monthly temperature ranges from an average low of 30 degrees to an average high of 61 degrees Fahrenheit (2010 STPUD UWMP). The historical annual mean precipitation is 33 inches. The average evapotranspiration rate (ETo) is 54.3 inches (California DWR CIMIS Reference Evapotranspiration Zones Map).

3.2 Population

The STPUD service area boundary does not match up exactly with census tract or block group zones. Existing service population is therefore estimated using the DWR Population Tool as described in Chapter 5. The tool provides a capita per connection. This value is applied to future projected connections to project future served population. The service area is largely built out, with remaining development potential heavily regulated by TRPA requirements. Projected growth rates are based on the Tahoe City’s 2030 General Plan projected growth rates as a proxy for the entire service area (2010 STPUD UWMP). Connection growth rate is projected at 0.4 percent per year. Resulting population projections are presented in Table 3-1.

The service area demographics present a unique challenge in estimating population served. The census data used in the DWR Population Tool only includes permanent residents. However, the District serves a much larger population during high-season periods and on the weekends when tourists and vacation home owners visit. The DWR Population Tool’s main purpose is to assist in showing compliance with the 20x2020 demand reduction goals, and is therefore a standardized approach.

In order to remain consistent with the DWR UWMP Guidebook recommendations and the DWR Population Tool, STPUD is also using the Population Tool output for this UWMP and demand compliance reporting. Using the tool, the STPUD population per connection is 2.18. STPUD acknowledges the population served is actually larger than the permanent resident population. However, as demand reduction compliance is based on relative reductions over time, STPUD anticipates no significant differences in compliance requirements. STPUD will continue to track this issue and modify its served population estimates in the future if necessary.

Table 3-1 Retail: Population - Current and Projected						
Population Served	2015	2020	2025	2030	2035	2040(opt)
	29,236	29,851	30,405	30,990	31,575	

4 System Water Use

This section presents past and projected water demands. The STPUD serves a wide range of customer types, from older small lots with little landscape to newer larger residences with extensive landscaping and large resort areas with snowmaking.

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 requirements as well as new building codes. In 2015, STPUD still had 5,695 unmetered connections. The District is installing meters on all connections and should be fully metered by 2025.

Actual 2015 water demands per category are presented in Table 4-1. All non-residential customers are metered, but there are still 41 percent residential customers unmetered. As the tables indicate, the majority of the District’s customers are residential. The District commercial category includes office and retail, as well as the resort accounts including hotels, restaurants, and snowmaking. “Losses” account for non-metered water use such as firefighting, flushing, leaks, water theft, or meter inaccuracies.

Projected customer water demands through 2035 are summarized in Table 4-2. Table 4-3 summarizes the current and projected demands. There are no recycled water demands as discussed in Chapter 6. Water loss for 2015 is calculated per the DWR/AWWA water audit methodology and summarized in Table 4-4. The District does not project any transfers, exchanges, or other potable water uses at this time.

Table 4-1 Retail: Demands for Potable and Raw Water - Actual			
Use Type <i>(Add additional rows as needed)</i>	2015 Actual		
	Additional Description <i>(as needed)</i>	Level of Treatment When Delivered	Volume, AFY
Single Family		Drinking Water	1,853
Multi-Family		Drinking Water	915
Commercial	includes institutional	Drinking Water	1,950
Landscape		Drinking Water	6
Losses	non-revenue water	Drinking Water	517
TOTAL			5,241

Table 4-2 Retail: Demands for Potable and Raw Water - Projected						
Use Type <i>(Add additional rows as needed)</i>	Additional Description <i>(as needed)</i>	Projected Water Use, AFY <i>Report To the Extent that Records are Available</i>				
		2020	2025	2030	2035	2040 <i>(opt)</i>
Single Family		2,375	2,422	2,468	2,515	
Multi-Family		1,061	1,082	1,103	1,124	
Commercial	includes institutional	2,035	2,075	2,115	2,155	
Landscape		6	6	6	6	
Losses	non-revenue water	542	552	563	574	
TOTAL		6,019	6,136	6,255	6,373	0

Table 4-3 Retail: Total Water Demands, AFY						
	2015	2020	2025	2030	2035	2040 <i>(opt)</i>
Potable and Raw Water <i>From Tables 4-1 and 4-2</i>	5,241	6,019	6,137	6,255	6,373	0
Recycled Water Demand <i>From Table 6-4</i>	0	0	0	0	0	0
TOTAL WATER DEMAND	5,241	6,019	6,137	6,255	6,373	0

Table 4-4 Retail: 12 Month Water Loss Audit Reporting	
Reporting Period Start Date (mm/yyyy)	Volume of Water Loss, AF
01/2015	149

4.2 Water Use for Low Income Households

The City of South Lake Tahoe’s draft General Plan and Housing Element projects a total of 291 affordable housing units within the District’s service area to meet the regional housing share target (2010 STPUD UWMP). These affordable housing units are assumed to be multi-family units. Using the multi-family unit water demand of 0.9 AFY/connection, the estimated income household water demand is 262 AFY. These demands are included in the projected demands presented throughout this UWMP. The required information for factors to include in water use projections is presented 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)	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.	4.1
Are Lower Income Residential Demands Included In Projections?	Yes

5 Baseline and Targets

State law requires that urban water agencies reduce demand 20 percent by 2020, with an interim 2015 target. 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 2015 UWMP Guidebook and Appendices.

5.1 2020 Baseline Demand and Target

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

Table 5-1 Baselines and Targets Summary <i>Retail Agency or Regional Alliance Only</i>					
Baseline Period	Start Year	End Year	Average Baseline GPCD*	2015 Interim Target *	Confirmed 2020 Target*
10-15 year	1995	2004	226	204	181
5 Year	2003	2007	210		
*All values are in Gallons per Capita per Day (GPCD)					

Table 5-2: 2015 Compliance <i>Retail Agency or Regional Alliance Only*</i>								
Actual 2015 GPCD	2015 Interim Target GPCD	Optional Adjustments to 2015 GPCD Enter "0" for adjustments not used From Methodology 8					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		
160	199	0	0	0	0	160	160	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. Target Method 1, 20 percent of the baseline value, is the selected target. Resulting targets and compliance are summarized above in Tables 5-1 and 5-2. These tables will also be submitted to DWR per the UWMP Requirements.

6 Water Supplies

The STPUD maintains a groundwater pumping system to supply its customers. The District does hold some surface water permits and filings in progress, but currently does not supply surface water. This chapter presents the supply analysis and discussion.

6.1 Surface Water

The District holds a permit to divert up to 2,718 AFY from Cold Creek (2010 STPUD UWMP). However, it discontinued this diversion in 1991 due to water quality constraints. The District also has diversion rights to the Upper Truckee River and tributaries for up to 4,424 AFY. These rights have not been utilized in the past and are not planned for use in the future due to supply reliability concerns (UWMP 2005). STPUD does not project surface water use for the next 20 years at this time, but will continue to evaluate surface water supply opportunities.

6.2 Groundwater

The District draws its groundwater supply from the basin underlying the service area. The California Department of Water Resources Groundwater Update 2003 Bulletin 118 defines the basin as the Tahoe Valley South Subbasin (Basin 6-5.01).

6.2.1 Basin Description

As described in the District's Groundwater Management Plan and Bulletin 118, the groundwater basin is primarily unconsolidated sedimentary deposits within the Tahoe Valley South Subbasin of the Tahoe Valley Groundwater Basin (Basin). Glacial deposits are predominant and include moraines and outwash that make up the predominant aquifers. The outwash deposits are generally sand, gravel, and cobble layers that are interbedded with silt and clay layers. Glacial melt waters and streams that drained moraines to the south produced the outwash deposits. Later, glacial outwash deposits in some areas were eroded and replaced with stream channel deposits. Hardrock assemblages, including granitic, metamorphic, and volcanic rocks, are also common to the District and in the Basin. Granitic outcrops are common over a large area east, and within most of the District.

In 1996, the fuel additive MTBE was detected in one of the District's wells. Gasoline/MTBE leaking from local gas station tanks travels easily through porous granitic soil into groundwater supplies. MTBE is a suspected carcinogen and even at low levels the chemical causes a foul taste and odor. The District has made significant efforts to combat this contaminant and, since 1996, MTBE has become the primary limiting factor to the District's supply and operations.

The District has been very proactive in addressing the challenges that MTBE contamination has caused. The District lobbied legislators and government officials to ban the use of MTBE as a fuel additive. The District was successful in enlisting the help of El Dorado County and the City of South Lake Tahoe to create an MTBE-free zone at South Lake Tahoe beginning in April 1999. In 2000, the District completed a comprehensive Master Plan Update, MTBE Water System Impacts and Mitigation

Evaluation addressing the restoration of water production lost to MTBE contamination. Options studied included constructing new wells, securing surface water rights, purchasing water, rehabilitating its wells, conserving water, and installing treatment facilities to remove MTBE from wells. The District continues to implement and modify this plan as needed.

In addition to wellhead treatment, the District has pursued a new drinking water well development program. The Bayview Well, put on line in summer of 2007, produces 3,600 gallons of water per minute, and is the District's highest producing well. South Upper Truckee Well No. 3, put on line in 2008, adds another 1,200 gallons per minute of supply. With these new wells and recent distribution system improvements, the District has completely returned to pre-MTBE production capability.

Currently, there is a known PCE plume northeast of the Emerald Bay Road and South Lake Tahoe Boulevard Y area, moving towards the Lukins Brothers and Tahoe Keys Water companies' wells. STPUD is in the process of analysis and evaluation of potential supply and treatment alternatives should the private water company wells be affected. Although STPUD believes there is no current threat to its own wells, it will continue to track the plume and take necessary precautions if necessary in the future.

The District's water quality is reported in the Consumer Confidence Report (CCR), distributed to each customer annually. The latest CCR is included in Appendix B.

6.2.2 Groundwater Management

The District developed and adopted a Groundwater Management Plan (GWMP) in 2005. The plan was updated in December 2014. An electronic copy of the plan is available on the District's website at:

http://www.stpud.us/TVS-Basin-6-5-01-2014-GWMP_12-22-14.pdf.

Within the 2005 Groundwater Management Plan, the District established a safe pumping yield of 9,528 AFY for its operation. Historical and current demand is below the safe yield and has been declining since 2007. However, since that time, the State has adopted the Sustainable Groundwater Management Act (SGMA). SGMA legislation and rules contain more detailed analysis requirements and criteria for managing groundwater. The District is the lead agency for implementing SGMA. The 2014 GWMP acknowledged these new requirements and recommended the sustainable basin yield be re-evaluated once the State has developed the guidelines (expected in 2017). The District will address safe yield, and all requirements of the SGMA serving as the lead agency as the rules and criteria are developed and approved by the State.

In addition to developing the GWMP and implementing SGMA, the District is also the reporting agency for the California Statewide Groundwater Elevation Monitoring (CASGEM) program. Per CASGEM 2015 reporting, Basin 6-5.01 is a medium priority due to the MTBE contamination. As stated previously, STPUD has been, and continues

to be, proactive in addressing this contamination and is already back to pre-MTBE discovery production capacity.

6.2.3 Overdraft Conditions

Bulletin 118 does not identify the sub-basin as being in overdraft. The basin is not adjudicated. The District’s groundwater management plan and ongoing SGMA efforts will provide the framework to manage the basin sustainably to prevent overdraft or other detrimental results.

6.2.4 Historical Pumping

STPUD maintains 14 active supply production and two standby groundwater wells as of the end of 2015. Well production capacity ranges from less than 125 gpm up to 3,500 gpm. The District has reported as many as 34 wells from historic records. However, wells are abandoned over time due to age, failing production, and water quality such as the MTBE issues.

Past groundwater usage from 2011-2015 is presented in Table 6-1. Water quality and well age issues will continue to impact supply capacities. STPUD will continue to monitor water quality and well performance and implement treatment and/or new well programs to maintain supply reliability.

Table 6-1 Retail: Groundwater Volume Pumped, AFY						
	Supplier does not pump groundwater. The supplier will not complete the table below.					
Groundwater Type	Location or Basin Name	2011	2012	2013	2014	2015
Alluvial Basin	Tahoe Valley Sub-basin 6-5.01	6,028	6,519	6,338	6,011	5,243
TOTAL		6,028	6,519	6,338	6,011	5,243

6.3 Wastewater and Recycled Water

STPUD owns and operates the wastewater collection and treatment system. The system produces effluent at recycled water standards. However, the State’s Lahontan Regional Water Quality Control Board prohibits the use of recycled water within the Tahoe Basin. Therefore, all the treatment plan effluent is pumped to Alpine county and used for agricultural purposes. This section presents the required information per the Guidelines. DWR UWMP Tables 6-3, 6-4, and 6-5 are not applicable and not presented in this UWMP.

6.3.1 Wastewater Collection, Treatment, and Disposal

The District provides all wastewater treatment, collection, and disposal within its service area. The wastewater collection, treatment, and recycling disposal processes can treat 7.7 million gallon per day (MGD) serving approximately 17,000 connections. The District's award-winning collection system and wastewater treatment plant produces an average 4 MGD, 100 percent of which is recycled. However, the Basin Plan promulgated by the Lahontan Regional Water Quality Control Board prohibits reuse of treated wastewater within the Lake Tahoe basin watershed, leaving no opportunities for re-use within the service area.

The District's treatment plant is currently permitted for "secondary 23" recycled water. This means the water has been oxidized and disinfected so that the median concentration of total coliform bacteria does not exceed a Most Probable Number (MPN) of 23 per 100 milliliters (ml) and the single day maximum does not exceed a MPN of 240 per 100 ml in any 30-day period. This quality of water is generally suitable for agricultural and some industrial uses. It is not suitable for unrestricted irrigation use. Since 1968, the District has delivered its treated effluent through a 26-mile export system, over Luther Pass (a lift of 1,200 feet), to Alpine County. The recycled water is stored during the winter months in 3,800-acre-foot Harvey Place Reservoir and distributed to six ranches for irrigation purposes in the dry summer months.

Despite the prohibition on recycling within the District's own service area, through a special legislative act in 2000, the District was able to install six fire hydrants along a short section of its export pipeline. These hydrants provide emergency fire suppression to a small residential community (that does not have municipal water service) and the District's critical wastewater pumping station at the base of Luther Pass. The availability of recycled water in the event of a catastrophic fire in this heavily forested area provides a level of security to the residents, the District, and the Lake Valley Fire Department. Four additional hydrants in Alpine County provide similar fire protection as the export line makes its way to Harvey Place Reservoir. Table 6-2 presents the required information regarding the wastewater collected within the service area.

Table 6-2 Retail: Wastewater Collected Within Service Area in 2015						
There is no wastewater collection system. The supplier will not complete the table below.						
Percentage of 2015 service area covered by wastewater collection system (optional)						
Percentage of 2015 service area population covered by wastewater collection system (optional)						
Wastewater Collection			Recipient of Collected Wastewater			
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated?	Volume of Wastewater Collected in 2015 AFY	Name of Wastewater Treatment Agency Receiving Collected Wastewater	Treatment Plant Name	Is WWTP Located Within UWMP Area?	Is WWTP Operation Contracted to a Third Party? (optional)
South Tahoe PUD	<i>Estimated</i>	3,410	<i>South Tahoe PUD</i>	South Tahoe PUD	Yes	
Total Wastewater Collected from Service Area in 2015:		3,410				

6.3.2 Actions to Encourage and Optimize Future Recycled Water Use

As stated earlier, the State’s Lahontan Regional Water Quality Control Board prohibits the use of recycled water within the Tahoe Basin. STPUD’s only option at this time is to pump the recycled water to Alpine County for agricultural use. The District plans to continue this practice for the foreseeable future.

Table 6-6 lists the current methods and programs to encourage recycled water use as not applicable (N/A) as there are no current plans for recycled water supply use in service area.

Table 6-6 Retail: Methods to Expand Future Recycled Water Use			
X	Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.		
	Provide page location of narrative in UWMP		
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use
N/A			
Total			0

6.4 Desalinated Water Opportunities

There are no opportunities for desalinated water projects for the District.

6.5 Transfer Opportunities

STPUD relies on its own produced groundwater for its supply. The District does not transfer or exchange any of its groundwater to other water agencies on a long-term basis. Should transfer opportunities arise in the future, the District will evaluate the opportunities.

6.6 Emergency Interties

STPUD maintains interconnection with the smaller private water companies within their service area. The interconnections are mostly intended to provide supply to the private companies during an emergency. The use of these connections during an emergency is not considered transfers or exchanges that provide additional supply on a regular basis.

6.7 Future Water Supply Projects

District plans do not include any new supply sources over the next 10 years. However, if well water quality or quantity dictate, the District will implement efforts to add treatment to a well or drill a new well if necessary. Table 6-7 illustrates that there are no planned additional supply projects at this time. However, the District will continue to monitor and track opportunities for additional supply as needed.

Table 6-7 Retail: Expected Future Water Supply Projects or Programs						
No expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Supplier will not complete the table below.						
Some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format.						
Provide page location of narrative in the UWMP						
Name of Future Projects or Programs	Joint Project with other agencies?		Description (if needed)	Planned Implementation Year	Planned for Use in Year Type.	Expected Increase in Water Supply to Agency
New wells	No		construct new wells as necessary to replace aging wells.	as needed	Average Year	1,000 AFY per well average

6.8 Summary of Existing and Planned Sources of Water

Table 6-8 summarizes the 2015 supply volumes. Projected supply availability is summarized in Table 6-9.

Table 6-8 Retail: Water Supplies — Actual				
Water Supply	Additional Detail on Water Supply	2015		
		Actual Volume, AFY	Water Quality	Total Right or Safe Yield (optional)
Groundwater		5,241	Drinking Water	
Total		5,241		0

Table 6-9 Retail: Water Supplies — Projected											
Water Supply	Additional Detail on Water Supply	Projected Water Supply <i>Report To the Extent Practicable</i>									
		2020		2025		2030		2035		2040 (opt)	
		Reasonably Available Volume, AFY	Total Right or Safe Yield (optional)	Reasonably Available Volume, AFY	Total Right or Safe Yield (optional)	Reasonably Available Volume, AFY	Total Right or Safe Yield (optional)	Reasonably Available Volume, AFY	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)
Groundwater		6,019		6,137		6,255		6,373			
Total		6,019	0	6,137	0	6,255	0	6,373	0	0	0

7 Water Supply Reliability Assessment

This section describes the supply reliability and summarizes the total water supplies for STPUD.

7.1 Constraints on Water Sources

The District's supply is provided by local groundwater. The "safe yield" of this supply has been quantified in the District's Groundwater Management Plan as described in Chapter 6. The greatest risk for the water supply is groundwater contamination from MTBE, as well as naturally occurring arsenic and uranium. These issues have required the District to take some wells out of service and carefully plan the location of new wells. As described in Chapter 6, the District has developed a plan for mitigating MTBE and other constituent impacts and this risk is not expected to substantially impact supplies over the period of this UWMP.

The groundwater basin historically has shown little to no response to hydrologic year types, even during the drought of 1985-1991 (STPUD 2010 UWMP). The District does not anticipate any detrimental effects to the groundwater basin due to climatic changes at this time. Legal restrictions through basin adjudication are not expected at this time. The District's groundwater management plan and the SGMA process provides for sustainable management of the basin.

7.2 Reliability by Type of Year

Unlike many of California water agencies, the District's water supply is not severely impacted by single or multiple dry water years. The District's groundwater studies confirm that the wells that serve as the water supply are supported by Lake Tahoe. During the drought of 1985-1991, lake levels dropped 10 feet but the static water level decline observed in District wells was less than four feet and observed in only a few wells (STPUD 2010 UWMP).

Table 7-1 presents supply volumes that are available during each of the dry year types. STPUD assumes the supply is 100 percent available during each year type.

Table 7-1 Retail: Basis of Water Year Data			
Year Type	Base Year	Available Supplies if Year Type Repeats	
		Agency may provide volume only, percent only, or both	
		Volume Available	% of Average Supply
Average Year	2005		100%
Single-Dry Year	1985		100%
Multiple-Dry Years 1st Year	1985		100%
Multiple-Dry Years 2nd Year	1986		100%
Multiple-Dry Years 3rd Year	1987		100%

7.3 Supply and Demand Assessment

Supply and demand for each required year type are summarized in Tables 7-2, 7-3, and 7-4. Because the basin is not adjudicated, the STPUD is not assigned an available supply. The District will pump sufficient supply to meet the demands during each of the single and multiple dry year scenarios, without requiring a reduction in demand or supplemental supplies. Demand for the single dry year scenario is increased 10 percent as a conservative estimate of increased outdoor water usage during the first dry summer. Demand is reduced back down to normal values during a multiple dry year scenario. It is acknowledged that demand has been reduced during the current drought period, but reductions have been regulatory-driven by the State Water Resources Control Board, and were not based on supply availability.

Table 7-2 Retail: Normal Year Supply and Demand Comparison, AFY					
	2020	2025	2030	2035	2040 (Opt)
Supply totals <i>(autofill from Table 6-9)</i>	6,019	6,137	6,255	6,373	0
Demand totals <i>(autofill from Table 4-3)</i>	6,019	6,137	6,255	6,373	0
Difference	0	0	0	0	0

Table 7-3 Retail: Single Dry Year Supply and Demand Comparison, AFY					
	2020	2025	2030	2035	2040 (Opt)
Supply totals	6,621	6,751	6,881	7,010	
Demand totals	6,621	6,751	6,881	7,010	
Difference	0	0	0	0	0

Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison, AFY						
		2020	2025	2030	2035	2040 (Opt)
First year	Supply totals	6,621	6,751	6,881	7,010	
	Demand totals	6,621	6,751	6,881	7,010	
	Difference	0	0	0	0	0
Second year	Supply totals	6,019	6,137	6,255	6,373	
	Demand totals	6,019	6,137	6,255	6,373	
	Difference	0	0	0	0	0
Third year	Supply totals	6,019	6,137	6,255	6,373	
	Demand totals	6,019	6,137	6,255	6,373	
	Difference	0	0	0	0	0

7.4 Regional Supply Reliability

As discussed previously, the TRPA planning and regulatory process limits growth in the Tahoe Basin. Within the STPUD service area, there is sufficient groundwater supply for the projected water demands. At this time, there is no need to identify additional supplies from other regions. STPUD will continue to monitor projected demands and supply reliability and pursue needs and opportunities as they arise.

8 Water Shortage Contingency Planning

The current STPUD Water Shortage and Drought Response Standards in the Administrative Code are summarized below and presented in Appendix C. The District will reevaluate its drought stages based on the results of current and ongoing State Board efforts.

8.1 Stages of Action

The District applies a three-stage plan during declared water shortages. The plan also applies to catastrophic loss of water. The plan address demand management and other restrictions to reduce water use up to 50 percent or more of the normal consumption. Table 8-1 summarizes the water shortage plan and stages of action.

Table 8-1 Retail Stages of Water Shortage Contingency Plan		
Stage	Complete Both	
	Percent Supply Reduction ¹ <i>Numerical value as a percent</i>	Water Supply Condition <i>(Narrative description)</i>
1	0%	Normal or wet year supply conditions
2	25%-50%	Significant water shortage
3	50% or more	Water emergency

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

8.2 Prohibitions on End Uses

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

Table 8-2 Retail Only: Restrictions and Prohibitions on End Uses			
Stage	Restrictions and Prohibitions on End Users	Additional Explanation or Reference <i>(optional)</i>	Penalty, Charge, or Other Enforcement?
1	Other - Require automatic shut off nozzles on hoses		Yes
1	Other	Prohibit allowing water to leave customer property.	Yes
1	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner		Yes
1	Other - Prohibit use of potable water for washing hard surfaces		Yes
1	Landscape - Limit landscape irrigation to specific times		Yes
1	Landscape - Other landscape restriction or prohibition	Prohibit irrigation of natural/undeveloped land	Yes
1	Landscape - Other landscape restriction or prohibition	Allow exemption for drip irrigation and new vegetation	No
1	Other	Encourage water waste reporting	Yes
1	CII - Restaurants may only serve water upon request		Yes
2	Landscape - Limit landscape irrigation to specific times		Yes
2	Water Features - Restrict water use for decorative water features, such as fountains		Yes
2	Landscape - Other landscape restriction or prohibition	Prohibit irrigation with potable water at new construction inconsistent with Ca. building standards	Yes
3	Other	Only domestic/commercial/public facility use allowed	Yes
3	Other	Prohibit potable water use for air conditioning	Yes

8.3 Penalties, Charges, Other Enforcement of Prohibitions

Enforcement actions are described in detail in the STPUD Water Shortage and Drought Response Standards in the Administrative Code in Appendix C. The District sends a notification to a customer for a first violation of the water shortage requirements. Subsequent notifications include increasing fines through the fourth notification. After the third notification, the District may install a flow-restricting device on the service. At the fourth notification the District may discontinue water service. The customer will be billed for the installation and removal of the flow-restrictor device, and for the disconnection and re-connection of the water service when conducted.

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	Additional Explanation or Reference <i>(optional)</i>
1	Provide Rebates on Plumbing Fixtures and Devices	
1	Offer Water Use Surveys	
1	Provide Rebates for Landscape Irrigation Efficiency	
1	Provide Rebates for Turf Replacement	
1	Reduce System Water Loss	
2	Increase Water Waste Patrols	
2	Expand Public Information Campaign	
2	Reduce System Water Loss	Increase efforts to reduce system water loss
2	Other	Implement water waste reporting system
2	Decrease Line Flushing	
3	Implement or Modify Drought Rate Structure or Surcharge	
3	Moratorium or Net Zero Demand Increase on New Connections	

8.5 Determining Water Shortage Reductions

STPUD assigns requirements and actions to apply in each stage designed to achieve the necessary demand reduction. The District will monitor monthly or weekly production values for each of its wells, depending on shortage conditions. The District will also compare production to actual customer usage to determine demand reduction results. Based on production and demand trends, the District will act to adjust the water shortage stage declaration as necessary.

8.6 Revenue and Expenditure Impacts

The District water rate structure includes rates for metered and unmetered customers. The metered rates for single family connections include two tiers, and all rates include a base fixed charge. The base fixed charge will not be affected by a water shortage. There will be an expected decrease in volumetric revenue if demands are reduced. District energy expenses are expected to decrease slightly with reduced water demands, as less water will be pumped, reducing electrical costs. Other District operating costs are not expected to change significantly during water shortage conditions.

Though there may be reduced volumetric revenue, it is not expected to impact District finances significantly. Due to the MTBE issue, the District maintains a reserve fund to address financial and supply needs should any of the wells be taken offline. In addition, if the supply shortage is projected to last longer, the District will investigate and implement as necessary water crisis/emergency pricing to offset potential long-term revenue reductions.

8.7 Resolution or Ordinance

The water shortage contingency resolution is included in Appendix C and has been summarized throughout this chapter.

8.8 Catastrophic Supply Interruption

Water shortages can result from long-term supply effects from climatic or water quality issues. Shortages can also result from short-term interruptions due to natural disasters and/or equipment failure.

The District has developed an Emergency Operation Plan (EOP). This EOP guides response to unpredicted catastrophic events that might impact water delivery including regional power outages, earthquakes or other disasters and outlines standard operating procedures for all levels of emergency, from minor accidents to major disaster. In addition, the District has prepared a Local Hazard Mitigation Plan. These plans have been coordinated with neighboring agencies.

8.9 Minimum Supply Next Three Years

Table 8-4 presents the estimated available supply for the next three years. STPUD assumes the existing full capacity of the existing groundwater production wells is available for the next three years.

Table 8-4 Retail: Minimum Supply Next Three Years, AFY			
	2016	2017	2018
Available Water Supply	6,000	6,000	6,000

9 Conservation and Demand Management

The District is a member of the California Urban Water Conservation Council (CUWCC). The CUWCC maintains a memorandum of understanding (MOU) that lists required water conservation best management practices (BMPs). Members agree to implement the MOU and provide annual progress reports to the CUWCC. The California Department of Water Resources (DWR) accepts these approved CUWCC annual reports as meeting the Urban Water Management Plan (UWMP) conservation program requirements, simplifying UWMP compliance.

The CUWCC divides the BMPs into two groups. Foundational BMPs are internal operational practices that all agencies should implement. Programmatic BMPs are customer-focused efforts. The descriptions of all the CUWCC BMPs are provided in Appendix D.

The District is currently on track to meet the 2015 and 2020 gpcd goals as described in Chapter 5. However, water demands fluctuate and the District anticipates the need for a proactive conservation and demand management program to ensure the gpcd goals are met as required. The current conservation and demand management program per the DWR UWMP Guideline Requirements is described below. The District maintains a budget of \$173,000 per year to fund its conservation program. Additional BMPs will be added to the program to maintain gpcd compliance or to meet other District goals as needed.

9.1 *Water Waste Prohibition*

The water waste prohibition is part of the Administrative Code included in Appendix C. Historically, two temporary seasonal employees have been hired under the supervision of the Water Conservation Specialist to enforce the water waste ordinance. The District sends out bill inserts and reminders for customers of the water waste ordinances and water conservation. Exemptions and violations given are tracked in a Microsoft Excel™ spreadsheet and in the customer database. Additionally, any letters or correspondences are scanned and attached to the customer account. Enforcement is ongoing and is independent of water shortage stages.

9.2 *Metering with Commodity Rates for all New Connections and Retrofit of Existing*

The District has required the installation of meters on all new construction, both residential and non-residential, since 1993. However, in 2015, the District still had 5,695 unmetered connections from previous existing connections. The remaining water meter retrofits are scheduled for completion by the year 2025 in accordance with State law. Once a meter is installed, the customer is switched to volumetric billing per the current rate structure.

The District does not evaluate this for water savings as it provides an indirect benefit to the other quantifiable programs. The District utilizes meters and tiered pricing to develop

a value of water for its customers who then can utilize the quantifiable programs to reduce their water use.

9.3 Conservation Pricing

As required by AB 2572, the District is converting existing residential connections to meters. Within 12 months of converting, these accounts will be billed on volumetric rates. The current water rate structure includes a two-tier volumetric charge for all residential customers. The current rate structure is available on the District's website at:

http://www.stpud.us/water_and_sewer_rates.html

The District will continue to update its rate structure as necessary and when all customers become metered.

STPUD does not evaluate this program for water savings as it provides an indirect benefit to the District's other quantifiable programs. The District utilizes meters and tiered pricing to develop a value of water for its customers who then can utilize the other programs to reduce their water use.

9.4 Public Information Programs

STPUD provides information on its water conservation program and on water conservation to the public through speakers for community groups, events, and schools. In addition, customers receive information through paid and public service advertising. STPUD coordinates with other governmental agencies, industry groups, public interest groups, and the media to continue offering information to customers. STPUD also maintains a school education program as part of its outreach efforts. The District is a member of the South Tahoe Environmental Education Coalition and educates students through the Coalition's various activities and week-long camps. Specific program descriptions and results are presented in the CUWCC annual reports in Appendix D.

STPUD continues to evaluate its public outreach program and will modify it as necessary. The public information budget including advertising is approximately \$25,000 per year. Implementation schedule is to continue every year.

There is no current method in the industry to evaluate this program. The outreach efforts support the District's other customer-specific programs that can be evaluated for water savings.

9.5 System Water Audits, Leak Detection, and Repair

The District maintains an active surface leak detection and repair program. The program includes District staff leak detection efforts and outside leak detection specialty contractors. The outside services contract inspects approximately 25-30 miles of pipeline per year.

The District has budgeted to continue these services annually. The efforts result in an average of 6-10 main, service, and fire hydrant leaks detected during each inspection

period. Pre-screening system audits are completed each year to prioritize areas for inspection.

The District maintains a leak data spreadsheet to track location and type of leak, estimated water loss, and other information such as pipe material. The District completes the American Water Works Association water loss audit annually. In 2015, the audit procedure resulted in approximately eight percent water loss, and a total of 10 percent non-revenue water (including water loss). The District will continue to conduct the AWWA water loss audit annually and increase its audit score per the CUWCC requirements.

In addition to the leak data spreadsheet, the District will track the number of miles of pipeline surveyed and repaired, along with annual dollar expenditures. The water savings from this measure are difficult to track at this time as the system is not fully metered. However, efforts will be made to try to determine water savings based on approximate leak rate and approximate flow volume of repairs made. As the system becomes fully metered, the estimates and calculations for the entire system will become more definitive.

9.6 Conservation Coordinator

STPUD has an established conservation coordinator position whose duties include the following:

- Coordination and oversight of conservation program and BMP implementation.
- Preparation and submittal of the annual CUWCC BMP Implementation Report.
- Coordination of conservation efforts and programs with District executive team, other staff, and other agencies.
- Preparation of annual BMP budgets.
- Tracking of customer demand trends and developing additional conservation programs to support needs.

The conservation coordinator is a full-time position. In addition to the coordinator, there are two seasonal positions available to assist the coordinator during surveys and audits, public information programs, rebate processing, customer demand analysis, or other tasks.

9.7 Additional Programs

In addition to the conservation programs required by the UWMP Guidelines, STPUD also maintains additional programs specific to their unique customer demographics and water use. The additional programs are listed below, with additional information included in the CUWCC annual reports and the District's website.

9.7.1 Residential Programs

- Water efficient appliance rebates
- Water-wise house call
- Turf buy-back

- Irrigation efficiency evaluations and rebates
- Leak detection assistance

9.7.2 Commercial Programs

- Commercial rebate program
- Commercial water use review
- Water upon request program for restaurants
- Linen and towel reuse programs for hotels and motels

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 El Dorado County, City of South Lake Tahoe, TRPA, and El Dorado County Water Agency informing them of STPUD’s UWMP process as presented in Appendix E. These notifications are summarized in Table 10-1.

A public review process was included in the UWMP development. STPUD held a public review of the UWMP to discuss the plan and receive comments from the public. The meeting was conducted at the June 16, 2016 Board of Directors Meeting. Public notice of the meeting was provided per the UWMP Guideline Requirements, and is included in Appendix F.

Table 10-1 Retail: Notification to Cities and Counties		
City Name	60 Day Notice	Notice of Public Hearing
South Lake Tahoe	X	X
County Name	60 Day Notice	Notice of Public Hearing
El Dorado County	X	X

10.2 Public Hearing and Adoption

The UWMP was approved at the June 16, 2016 Board of Directors meeting. The adoption resolution is provided in Appendix G.

10.3 Plan Submittal

STPUD will submit the UWMP electronically to DWR by July 1, 2016. Within 30 days of adoption, STPUD will submit a copy of the UWMP to the State Library and El Dorado County. A copy of the UWMP is available for public viewing at the District Office during normal business hours located at 1275 Meadow Crest Drive, South Lake Tahoe, CA 96150.

10.4 Implementation

The 2015 UWMP presents STPUD’s 20x2020 gpcd compliance, future water supplies, supply reliability, and water conservation program. The District has continued to maintain and improve its groundwater supply infrastructure by developing new wells and conducting maintenance and improvements on existing wells.

The District has maintained its efforts for the conservation program with positive results evidenced by decreased water demands. All foundational conservation best management practices are implemented. The District will monitor its gallon per capita day (gpcd) water usage and investigate alternative programs based on need. The District is a signatory of the California Urban Water Conservation Council and may utilize Council programs as necessary.

Implementation of the 2015 UWMP will be tracked through a variety of methods. Supply reliability issues will mostly be tracked through the District's water quality monitoring program, well infrastructure program, and production values. Progress and results of the conservation program will continue to be tracked and submitted to the CUWCC and the State as required to for UWMP updates and AB1420 compliance requirements. Compliance with the 20x2020 water demand targets will be tracked through the District's customer billing database and supply production numbers.

Appendix A
SB X7-7 Tables

SB X-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 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. The units selected for the analysis are acre feet.

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

SB X7-7 Table 2. The population calculation methodology is selected. The DWR population tool is selected.

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

SB X7-7 Table 4. Presents the annual gross water use for each year in the baseline calculation and for 2015.

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

SB X7-7 Table 4-B. Indicates there was not recycled water use during the baseline periods. This defines the allowable baseline period range of ten years.

SB X7-7 Table 4-C. Not used.

SB X7-7 Table 4-C.1. Not used.

SB X7-7 Table 4-C.2. Not used.

SB X7-7 Table 4-C.3. Not used.

SB X7-7 Table 4-C.4. Not used.

SB X7-7 Table 4-D. Not used.

SB X7-7 Table 5. Presents the annual gpcd gpcd calculations for the baseline period and for 2015.

SB X7-7 Table 6. Summarizes the two baseline gpcd and for 2015.

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

SB X7-7 Table 7-A. Presents the baseline gpcd and 2020 gpcd target.

SB X7-7 Table 7-B. Not used.

SB X7-7 Table 7-C. Not used.

SB X7-7 Table 7-D. Not used.

SB X7-7 Table 7-E. Not used.

SB X7-7 Table 7-F. Confirms minimum target reduction from the 5-year baseline.

SB X7-7 Table 8. Presents the 2015 interim gpcd target.

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

SB X7-7 Table 0: Units of Measure Used in UWMP*

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	6,918	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	2000	
	Year ending baseline period range ²	2009	
5-year baseline period	Number of years in baseline period	5	Years
	Year beginning baseline period range	2004	
	Year ending baseline period range ³	2008	
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)	
<input type="checkbox"/>	1. Department of Finance (DOF) DOF Table E-8 (1990 - 2000) and (2000-2010) and DOF Table E-5 (2011 - 2015) when available
<input type="checkbox"/>	2. Persons-per-Connection Method
<input checked="" type="checkbox"/>	3. DWR Population Tool
<input type="checkbox"/>	4. Other DWR recommends pre-review
NOTES: Capita per dwelling unit methodology preliminary approved	

SB X7-7 Table 3: Service Area Population

Year	Population	
10 to 15 Year Baseline Population		
Year 1	2000	31,961
Year 2	2001	32,487
Year 3	2002	31,728
Year 4	2003	31,296
Year 5	2004	31,085
Year 6	2005	30,902
Year 7	2006	30,691
Year 8	2007	30,215
Year 9	2008	29,714
Year 10	2009	29,340
<i>Year 11</i>		
<i>Year 12</i>		
<i>Year 13</i>		
<i>Year 14</i>		
<i>Year 15</i>		
5 Year Baseline Population		
Year 1	2004	31,085
Year 2	2005	30,902
Year 3	2006	30,691
Year 4	2007	30,215
Year 5	2008	29,714
2015 Compliance Year Population		
2015		29,236
NOTES:		

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

	Baseline Year <i>Fm SB X7-7 Table 3</i>	Volume Into Distribution System <i>Fm SB X7-7 Table(s) 4-A</i>	Deductions				Annual Gross Water Use	
			Exported Water	Change in Dist. System Storage (+/-)	Indirect Recycled Water <i>Fm SB X7-7 Table 4-B</i>	Water Delivered for Agricultural Use		Process Water <i>Fm SB X7-7 Table(s) 4-D</i>
10 to 15 Year Baseline - Gross Water Use								
Year 1	2000	7734.558			0		0	7,735
Year 2	2001	8081.7443			0		0	8,082
Year 3	2002	7835.9601			0		0	7,836
Year 4	2003	7102.6292			0		0	7,103
Year 5	2004	7508.78099			0		0	7,509
Year 6	2005	6924.70121			0		0	6,925
Year 7	2006	7447.60817			0		0	7,448
Year 8	2007	8163.58436			0		0	8,164
Year 9	2008	7638.05869			0		0	7,638
Year 10	2009	6920.43084			0		0	6,920
<i>Year 11</i>	0	0			0		0	0
<i>Year 12</i>	0	0			0		0	0
<i>Year 13</i>	0	0			0		0	0
<i>Year 14</i>	0	0			0		0	0
<i>Year 15</i>	0	0			0		0	0
10 - 15 year baseline average gross water use							5,024	
5 Year Baseline - Gross Water Use								
Year 1	2004	7,509			0		0	7,509
Year 2	2005	6,925			0		0	6,925
Year 3	2006	7,448			0		0	7,448
Year 4	2007	8,164			0		0	8,164
Year 5	2008	7,638			0		0	7,638
5 year baseline average gross water use							7,537	
2015 Compliance Year - Gross Water Use								
	2015	5,241			0		0	5,241
* 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 <i>Fm SB X7-7 Table 3</i>	Volume Entering Distribution System	Meter Error Adjustment* <i>Optional (+/-)</i>	Corrected Volume Entering Distribution System
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10 to 15 Year Baseline - Water into Distribution System

Year 1	2000	7,735		7,735
Year 2	2001	8,082		8,082
Year 3	2002	7,836		7,836
Year 4	2003	7,103		7,103
Year 5	2004	7,509		7,509
Year 6	2005	6,925		6,925
Year 7	2006	7,448		7,448
Year 8	2007	8,164		8,164
Year 9	2008	7,638		7,638
Year 10	2009	6,920		6,920
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	2004	7,509		7,509
Year 2	2005	6,925		6,925
Year 3	2006	7,448		7,448
Year 4	2007	8,164		8,164
Year 5	2008	7,638		7,638

2015 Compliance Year - Water into Distribution System

2015	5241		5,241
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** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES:

SB X7-7 Table 5: Gallons Per Capita Per Day (GPCD)

Baseline Year <i>Fm SB X7-7 Table 3</i>		Service Area Population <i>Fm SB X7-7 Table 3</i>	Annual Gross Water Use <i>Fm SB X7-7 Table 4</i>	Daily Per Capita Water Use (GPCD)
10 to 15 Year Baseline GPCD				
Year 1	2000	31,961	7,735	216
Year 2	2001	32,487	8,082	222
Year 3	2002	31,728	7,836	220
Year 4	2003	31,296	7,103	203
Year 5	2004	31,085	7,509	216
Year 6	2005	30,902	6,925	200
Year 7	2006	30,691	7,448	217
Year 8	2007	30,215	8,164	241
Year 9	2008	29,714	7,638	229
Year 10	2009	29,340	6,920	211
<i>Year 11</i>	0	0	0	
<i>Year 12</i>	0	0	0	
<i>Year 13</i>	0	0	0	
<i>Year 14</i>	0	0	0	
<i>Year 15</i>	0	0	0	
10-15 Year Average Baseline GPCD				217
5 Year Baseline GPCD				
Baseline Year <i>Fm SB X7-7 Table 3</i>		Service Area Population <i>Fm SB X7-7 Table 3</i>	Gross Water Use <i>Fm SB X7-7 Table 4</i>	Daily Per Capita Water Use
Year 1	2004	31,085	7,509	216
Year 2	2005	30,902	6,925	200
Year 3	2006	30,691	7,448	217
Year 4	2007	30,215	8,164	241
Year 5	2008	29,714	7,638	229
5 Year Average Baseline GPCD				221
2015 Compliance Year GPCD				
2015		29,236	5,241	160
NOTES:				

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

10-15 Year Baseline GPCD	217
5 Year Baseline GPCD	221
2015 Compliance Year GPCD	160
NOTES:	

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

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

NOTES:

SB X7-7 Table 7-A: Target Method 1

20% Reduction

10-15 Year Baseline	GPCD	2020 Target GPCD
217		174

NOTES:

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

5 Year Baseline GPCD <i>From SB X7-7 Table 5</i>	Maximum 2020 Target*	Calculated 2020 Target <i>Fm Appropriate Target Table</i>	Confirmed 2020 Target
221	210	181	181

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

NOTES:

SB X7-7 Table 8: 2015 Interim Target GPCD

Confirmed 2020 Target <i>Fm SB X7-7 Table 7-F</i>	10-15 year Baseline GPCD <i>Fm SB X7-7 Table 5</i>	2015 Interim Target GPCD
181	217	199

NOTES:

SB X7-7 Table 9: 2015 Compliance

Actual 2015 GPCD	2015 Interim Target GPCD	Optional Adjustments (<i>in GPCD</i>)					Adjusted 2015 GPCD	2015 GPCD (<i>Adjusted if applicable</i>)	Did Supplier Achieve Targeted Reduction for 2015?
		Extraordinary Events	Weather Normalization	Economic Adjustment	TOTAL Adjustments				
160	199	<i>From Methodology 8 (Optional)</i>	<i>From Methodology 8 (Optional)</i>	<i>From Methodology 8 (Optional)</i>	0	160.0377365	160.0377365	YES	

NOTES:

Appendix B
Consumer Confidence Report

South Tahoe Public Utility District CONSUMER CONFIDENCE REPORT 2015



IS MY WATER SAFE? Last year, as in years past, your tap water met all U.S. Environmental Protection Agency (EPA) and state drinking water health standards. The South Tahoe Public Utility District vigilantly safeguards its water supplies and, once again, we are proud to report that our system has not violated a maximum contaminant level or any other water quality standard.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

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. EPA/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 USEPA's Safe Water Drinking Hotline (1-800-426-4791).

WHERE DOES MY WATER COME FROM? There are 11 active drinking water and 2 standby wells to more than 14,000 homes and businesses. All our drinking water is pumped from underground aquifers. No water is taken from Lake Tahoe or any other surface water source.

SOURCE WATER ASSESSMENT AND PROTECTION

The District's Groundwater Management Plan (California Water Code Section 10750) was adopted on December 21, 2000 and is on file with the California Department of Public Health (CDPH). We are

currently completing the Groundwater Management Plan in early 2016. You may view the document by visiting the District's website at www.stpud.us or by requesting a copy by calling Customer Service at 530-544-6474.

The District has an ongoing drinking water source development program that seeks potential drinking water well locations. Due to the volume of the average annual Sierra snowpack and Lake Tahoe itself, our aquifer has a significant recharge capability. The District continues to work diligently to protect and maintain this precious natural resource.

WHY ARE THERE CONTAMINANTS IN MY DRINKING WATER?

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 Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (1-800-426-4791). The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the 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. Microbial contaminants, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife. Inorganic contaminants, such as salts and metals, can be naturally occurring or result from urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming. Pesticides and

herbicides, may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses. Organic Chemical Contaminants, including synthetic and volatile organic chemicals, are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application and septic systems. Radioactive contaminants, can be naturally occurring or be the result of oil and gas production and mining activities. In order to ensure that tap water is safe to drink, the United States Environmental Protection Agency (USEPA) and the California Department of Public Health (DPH) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

HOW CAN I GET INVOLVED? The information contained in the Consumer Confidence Report may not answer all the questions you may have about the quality of the South Tahoe Public Utility District's drinking water supply. The District welcomes public participation in developing water quality and quantity policy. If you would like more detailed scientific information, please call the District Laboratory at 530-544-6474 extension 6231, or check our website at www.stpud.us.

The District is governed by an elected five-member Board of Directors. Board meetings are held on the first and third Thursday of each month at 2 p.m. at the Customer Service Facility located at 1275 Meadow Crest Drive. All meetings are open to the public and the District encourages our customers to attend and become involved in the policy making process.

RESULTS OF RADON MONITORING Radon is a radioactive gas that you can't see, taste or smell. It is found throughout the U.S. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will, in most cases, be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. Fix your home if the level of radon in your air is 4 picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that aren't too costly. For additional information, call your state radon program or call EPA's Radon Hotline (800-SOS-RADON).

RESULTS OF VOLUNTARY MONITORING

See data sheets.

REGARDING ARSENIC Arsenic is a naturally occurring substance that is sometimes found at very low levels in drinking water, primarily groundwater. The U.S. Environmental Protection Agency (EPA) was required by the Safe Drinking Water Act Amendments of 1996 to finalize a new drinking water standard for arsenic in 2001 based on good scientific information and data.

WATER QUALITY DATA TABLE The table below lists all of the drinking water contaminants that we detected that are applicable for the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data

presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

ADDITIONAL CONTAMINANTS In an effort to insure the safest water possible, the State has required us to monitor some contaminants not required by Federal regulations. Of those contaminants only the ones listed on the last page under "Additional Contaminants" were found in your water.

IMPORTANT DRINKING WATER DEFINITIONS

MCLG Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

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

PDWS Primary Drinking Water Standards: MCLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

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

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

MRDLG Maximum Residual Disinfection Level Goal: 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.

MRDL Maximum Residual Disinfectant Level: 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.

MNR Monitored Not Regulated

MPL Maximum Permissible Level: As determined by the state of California

CONTAMINANTS	MCLG/PHG OR MRDLG	MCL OR MRDL OR NL	AVERAGE	MIN	MAX	SAMPLE DATE	VIOLATION	TYPICAL SOURCE
INORGANIC CONTAMINANTS								
Arsenic (ppb)	0.004	10	3.1	ND	8.4	2015	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Fluoride (ppm)	1	2	0.09	ND	0.14	2015	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate [measured as Nitrogen] (ppm)	10	10	0.20	0.03	0.58	2015	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium (ppm)	NA	MPL	12	4.62	30	2015	No	Erosion of natural deposits; Leaching
RADIONUCLIDES								
Gross Alpha (pCi/L), minus Uranium		15	5.27	1.34	9.90	2015	No	Erosion of natural deposits
Uranium (pCi/L)	0.43	20	4.82	0.61	14.7	2015	No	Erosion of natural deposits
Radium-226 (pCi/L)	0.05		1.15	0.38	2.31	2015	No	Erosion of natural deposits
Radium-228 (pCi/L)	0.019		1.56	0.21	3.97	2015	No	Erosion of natural deposits
Radium-226 + Radium-228		5	2.71	0.90	6.28	2015	No	Erosion of natural deposits
VOLATILE ORGANIC CONTAMINANTS								
MTBE [Methyl Tert Butyl Ether] (ppb)	5	13	ND	ND	0.5	2015	No	Leaking underground fuel storage tanks
Total Trihalomethanes (ppb)	NA	80	2.1	ND	16	2015	No	By-product of drinking water disinfection
HaloAcetic Acids (ppb)	NA	60	0.2	ND	2.3	2015	No	By-product of drinking water disinfection
MICROBIOLOGICAL CONTAMINANTS								
Total Coliforms (% Positive each month)		5	0.2	0	1.2	2015	No	Naturally present in environment
E. Coli (% Positive)		0	0	0	0	2015	No	Human and animal fecal matter
Heterotrophic Plate Count or HPC (CFU)		NA	0.3	ND	4	2015	No	NA
Turbidity (NTU) The Turbidity limit for the highest single measurement.		5	0.17	0.02	0.58	2015	No	Soil runoff
INORGANIC CONTAMINANTS								
CONTAMINANTS	MCLG/PHG	AL	90TH PERCENTILE	SAMPLE DATE	# SAMPLES EXCEEDING AL	EXCEEDS AL	TYPICAL SOURCE	
Lead - action level at consumer taps (ppb)	ND	15	ND	2014	0	No	Corosion of household plumbing systems; Erosion of natural deposits	
Copper - action level at consumer taps (ppb)	ND	1,300	71	2014	0	No	Internal corosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	

ADDITIONAL CONTAMINANTS	UNITS	STATE MCL	AVERAGE	VIOLATION	SAMPLE DATE	EXPLANATION AND COMMENT
Alkalinity, Total	ppm	NA	50.1	No	2015	Erosion of natural deposits
Aluminum	ppb	1,000	21	No	2014	Erosion of natural deposits
Barium	ppb	2,000	11	No	2014	Erosion of natural deposits
Bromide	ppm	NA	0.01	No	2015	Erosion of natural deposits
Calcium	ppm	NA	12.4	No	2015	Erosion of natural deposits
Carbon Dioxide, Free	ppm	NA	13.2	No	2015	Naturally occurring
Chloride	ppm	500	9.4	No	2015	Erosion of natural deposits
Chlorine, Free	ppm	4	0.65	No	2015	By-product of disinfection process
Chromium 6	ppb	NA	0.42	No	2015	Erosion of natural deposits
Color	Units	15	5	No	2015	Naturally occurring organic materials
Copper	ppb	NA	2	No	2015	Old plumbing/erosion of natural deposits
Dissolved Solids, Total	ppm	1,000	94	No	2015	Erosion of natural deposits
Electrical Conductance	µS/cm	1,600	146	No	2015	Erosion of natural deposits
Hardness	ppm	NA	45	No	2015	Erosion of natural deposits
Iron	ppb	300	26	No	2015	Erosion of natural deposits
Lead	ppb	NA	0.5	No	2015	Old plumbing/erosion of natural deposits
Magnesium	ppm	NA	2.5	No	2015	Erosion of natural deposits
Manganese	ppb	50	2	No	2015	Erosion of natural deposits
Odor-Threshold	Units	3	1	No	2015	Naturally occurring organic materials
ortho-Phosphate, as P	ppm	NA	0.04	No	2015	Erosion of natural deposits
Phosphorus, Total	ppm	NA	0.04	No	2015	Erosion of natural deposits
pH	Units	NA	7.78	No	2015	Erosion of natural deposits
Potassium	ppm	NA	1.5	No	2015	Erosion of natural deposits
Radon	pCi/L	NA	203	No	2015	Erosion of natural deposits
Sulfate	ppm	500	3.3	No	2015	Erosion of natural deposits
Temperature - System	°F	NA	51.1	No	2015	Erosion of natural deposits
Vanadium	ppb	NA	3.6	No	2014	Erosion of natural deposits
Zinc	ppb	5,000	ND	No	2015	Runoff/leaching from natural deposits

UNIT DESCRIPTIONS

µg/L: Micrograms per Liter, or parts per billion

mg/L: Milligrams per liter or parts per million

ppm: Parts per million, or milligrams per Liter (mg/L)

ppb: Parts per billion, or micrograms per Liter (µg/L)

ppt: Parts per trillion, or nanograms per Liter

ppq: Parts per quadrillion, or picograms per Liter

pCi/L: Picocuries per Liter (a measure of radioactivity)

MFL: Million Fibers per Liter, used to measure asbestos concentration

NTU: Nephelometric Turbidity Units. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

positive samples/month: The number of samples taken monthly that were found to be positive

positive samples/yr: The number of positive samples taken that year

% positive samples/month: Percentage of samples taken monthly that were positive

CFU/ml: Colony Forming Units per milliliter

NA: Not Applicable

ND: Not Detected

NR: Not Required, but recommended

ADDITIONAL MONITORING As part of an on-going evaluation program called *UCMR-3* (unregulated contaminant monitoring rule 3), the EPA has required us to monitor some additional contaminants/chemicals. Information collected through the monitoring of these contaminants/chemicals will ensure that future decisions on drinking water standards are based on sound science.

The US EPA uses the UCMR to collect data for contaminants suspected to be present in drinking water to help determine if drinking water standards need to be developed in the future. The District is required to monitor 28 chemical contaminants. The first round was completed in August 2014. The second and final round was conducted in February 2015. In the absence of identifiable industrial sources other than chlorate, these contaminants are naturally occurring in our watersheds. Chlorate is a degradation product of the disinfectant used by STPUD for water disinfection and is a common contaminant found in water treatment facilities throughout the nation.

CONTAMINANTS/CHEMICALS	UNITS	AVERAGE	MINIMUM	MAXIMUM	SAMPLE DATE
Chlorate	ppm	0.083	ND	0.440	2/2015
Chromium, Total	ppb	0.52	ND	1.30	2/2015
Chromium-6	ppb	0.43	0.09	1.10	2/2015
Cobalt	ppb	ND	ND	ND	2/2015
Molybdenum	ppb	13.8	ND	65	2/2015
Strontium	ppb	124	15	330	2/2015
Vanadium	ppb	3.6	ND	13	2/2015

Appendix C
Administrative Rules and Regulations
(Includes Water Shortage Contingency Plan)

3.3.10 Existing Backflow Prevention Assemblies. All existing backflow prevention assemblies which do not meet the requirements of this Section 3.3, but were approved when installed and which have been properly maintained shall, except for the inspection and testing requirements under Section 3.3.9, be excluded from the requirements of the Ordinances, rules, and regulations of the District so long as the District has determined that they will satisfactorily protect the District's system. Whenever an existing backflow prevention assembly is moved from its location, requires more than minimum maintenance, or when the District finds that its maintenance constitutes a health hazard, the unit shall be replaced by a backflow prevention assembly meeting the requirements of the Ordinances, rules, and regulations of the District.

Section 3.4 Water Shortage and Drought Response Standards.

(Ref. Ordinance No. 487-04 effective 4-01-04)

3.4.1 Purpose. The specific provisions of this Section are necessary and proper to conserve water resources and minimize cost to the District and expense to its customers.

WATER CONSERVATION STAGES

3.4.2 Water Waste Prohibited. No water user shall waste water or make, cause, or permit the use of water for any purpose contrary to any provision of this Section, or in quantities in excess of the use permitted by the conservation stage in effect pursuant to this Section. Soils should be amended appropriately for the soil conditions, type of vegetation, micro-climates and conditions. With proper lawn and garden maintenance and a properly designed irrigation system, watering three times a week is sufficient. Landscape should be installed in a manner that will reduce the amount of water needed for irrigation. Water for landscape should be applied in a manner that optimizes the use of fertilizer by the landscape and should prevent fertilizer from leaching into the ground water. The conservation stage shall be determined by the General Manager with regard to supply and demand of available water supplies, except that the Board shall determine any conservation stage more restrictive than Stage 2.

3.4.3 Stage 1 - Normal Conditions. During a Stage 1 - normal conditions, Water Users shall not waste water and shall abide by the following:

- a) Water Users shall not allow water to flow over the ground surface or from sprinklers onto impervious surfaces or adjacent property.
- b) Water Users shall repair all leaks in plumbing and irrigation systems.
- c) Hoses shall not be used for washing motor vehicles without an automatic shut-off nozzle attached to the hose. Continuous discharge from hose nozzle is prohibited. Notwithstanding any provision in this Section to the contrary, motor vehicles washing may be done at any time, subject to any

other applicable laws, on the property of a Commercial Car Wash or service station. Further, such washing is exempted from these regulations where the health, safety and welfare of the public is dependent upon frequent vehicle cleanings, such as garbage trucks and vehicles which transport food.

- d) All Water Users are encouraged to report to the District all signs or indications of water leaks or water waste.
- e) The irrigation of non-landscaped, natural vegetation or undeveloped property is expressly prohibited.
- f) Designated irrigation days are established: Properties with street addresses ending with an even number shall irrigate on Monday, Wednesday and Friday; and properties with street addresses ending with an odd number shall irrigate on Sunday, Tuesday and Thursday. There will be no irrigation permitted on Saturday. An individual irrigation zone in a property's irrigation system shall not irrigate more than one hour per day, unless the zone is irrigated exclusively by drip or other low-flow irrigation systems.
- g) Irrigation exclusively utilizing drip or other low-flow systems shall be exempt from designated irrigation days.
- h) An exemption shall exist under Stage 1 for new lawns planted to comply with the Tahoe Regional Planning Agency's Best Management Practices (BMPs) or, for any other reason, as follows:

1) Newly planted sod will be exempt for twenty-one (21) days from the date it was installed.

2) Seeded lawns, whether by hydroseed or other means, will be exempt for thirty (30) days from the date of application.

3) Bedding plants, including annuals and perennials, will be exempt for fifteen (15) days from the date of planting.

The property owner, or his/her designee, must notify the District verbally or in writing to obtain an exemption for the establishment of new vegetation as outlined above.

- i) The General Manager may permit extended periods of irrigation of public facilities if:
 - 1) a hand-held hose with an automatic shut-off is used, or
 - 2) a hand-held, faucet filled bucket of five (5) gallons or less is used, or
 - 3) a drip or low-flow irrigation system is used, or
 - 4) daytime use of public facilities prevents irrigation of all zones on the designated days listed above.

- j) Water shall not be used to wash sidewalks, driveways, parking areas, tennis courts, decks, patios or other improved areas, except in conjunction with driveway repair and sealing, or to alleviate immediate fire or sanitation hazards.
- k) All commercial establishments where food or beverages are provided-should encourage the serving of water to their customers only when specifically requested by the customer.

3.4.4 Stage 2 – Significant Water Shortage. During a Stage 2 – significant water shortage, Stage 1 applies, and also the following shall apply:

- a) The filling with water of outdoor swimming pools, which are not covered during periods of non-use, is prohibited.
- b) The operation of any ornamental fountain or similar decorative water structure is prohibited unless a recycling system is used and a notice to the public of such recycling system is prominently displayed.
- c) Outdoor irrigation of all vegetation including lawns and landscaping is limited to twice per week, one hour per zone - even number addresses shall irrigate on Monday and Thursday and odd number addresses shall irrigate on Tuesday and Friday - except more frequent irrigation of public facilities may be permitted pursuant to Section 3.4.3(h) and 3.4.12.
- d) No water shall be used for irrigating landscaping for new construction.

3.4.5 Stage 3 - Water Emergency. During a Stage 3 - Water shortage emergency, Stages 1 and 2 restrictions apply and the Board may designate specific areas for further restrictions as follows:

- a) The use of water for other than domestic and commercial use is prohibited except irrigation of public facilities may be permitted pursuant to Section 3.4.16.
- b) The use of water for air conditioning purposes, where an alternate source of fresh air is available, is prohibited.

ENFORCEMENT

3.4.6 Enforcement. The General Manager, and other District authorized representatives have the duty and are authorized to enforce all provisions of this Section 3.4.

3.4.7 First Violation. For a first violation within one calendar year, the District shall issue a written warning to the Water User.

3.4.8 Second Violation. For a second violation within one calendar year, a fine of \$100 for residential customers shall be added to the Water User's bill at the property where the violation occurred; for the second violation within one year, a fine of \$500 for commercial customers shall be added to the Water User's bill at the property where the violation occurred.

3.4.9 Third Violation. For a third violation within one calendar year, a fine of \$250 for residential customers shall be added to the Water User's bill at the property where the violation occurred; for the third violation within one year, a fine of \$750 for commercial customers shall be added to the Water User's bill at the property where the violation occurred. In addition to the fine, the Board or the General Manager may require installation of a flow-restricting device on the Water User's service connection.

3.4.10 Fourth Violation. For the fourth and any additional violations within one calendar year, a fine of \$500 for residential customers shall be added to the Water User's bill at the property where the violation occurred; for a fourth and any additional violations within one year, a fine of \$1,000 for commercial customers shall be added to the Water User's bill at the property where the violation occurred. The District may also discontinue the Water User's water service at the property where the violation occurred in accordance with District procedures. Re-connection shall be permitted only when there is reasonable protection against future violations, such as a flow-restricting device on the customer's service connection, as determined at the District's discretion.

3.4.11 District Enforcement Costs. District shall be reimbursed for its costs and expenses in enforcing the provisions of this Section 3.4, including such costs as District incurs for District staff to investigate and monitor the Water User's compliance with the terms of this Section. Charges for installation of flow-restricting devices or for discontinuing or restoring water service, as the District incurs those charges, shall be added to the Water User's bill at the property where the enforcement costs were incurred.

ADMINISTRATION

3.4.14 General. The provisions of this Section 3.4 shall be administered and enforced by the District through the General Manager, who may delegate such enforcement to one or more employees or contractors of the District.

3.4.15 Utility Accounts. Accounts shall not be established for new customers, including the transfer of accounts upon change of ownership, until the customer complies with the provisions of this Section 3.4. In pursuing the objectives of this Section 3.4 the General Manager shall seek the cooperation of other utility purveyors within the District's service area. The District will request that other utility purveyors not permit the establishment of new accounts until the customer complies with the provisions of this Section 3.4.

3.4.16 Discretionary Exemptions. The Board may, in its discretion, exempt Water Users and individual facilities of Water Users from the provisions of this Section 3.4, or impose reasonable conditions in lieu of compliance with this Section 3.4, if the Board finds that any of the following conditions exist:

- a) **Hardship.** The requirements of this Section would cause an unnecessary and undue hardship upon the Water User, the Water User facility or the public.
- b) **Health and Safety.** Strict compliance with the requirements of this Section 3.4 would create an emergency condition, as determined by the Board or other governmental entity with appropriate jurisdiction, affecting the health, protection or safety of the Water User or the public.
- c) **No Impact on Water Use.** The granting of the exemption or imposition of reasonable conditions in lieu of compliance with this Section 3.4 would not increase the quantity of water consumed by the Water User or otherwise adversely affect service to other Water Users. In granting any such relief, the departure from the requirements of this Section 3.4 shall be limited to the minimum necessary to address the circumstances upon which such departure is required by a Water User.

3.4.17 Appeals. Any customer or applicant for a variance permit may appeal any decision under this Section 3.4 in accordance with Section 6.7.

REQUIREMENTS FOR NEW CONSTRUCTION

3.4.18 Mandatory Fixtures. Low water use plumbing fixtures are mandatory for all new construction and any remodeling which involves the installation of new or additional plumbing fixtures. The low water use plumbing fixtures installed pursuant to this Section 3.4.18 shall not be replaced with fixtures which allow greater water use.

Section 3.5 Declining Groundwater Levels. (Ref. Ord. 500-07)

3.5.1 Policy and Purpose. The purpose of this Section 3.5 is to regulate, manage, conserve and protect the District's ongoing water supply in such a manner that the District's water supply, including but not limited to the groundwater resources within the

Appendix D
CUWCC 2013/2014 Annual Reports



CUWCC BMP Retail Coverage Report 2013

Foundational Best Management Practices for Urban Water Efficiency

BMP 1.1 Operation Practices

ON TRACK

7050 South Tahoe Public Utility District

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

Name:

Title:

Email:

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.	STPUD Water Conservation Ordinance.pdf		In 2004, the Board of Directors for the South Tahoe Public Utility District enacted ordinance # 487-04 on Water Shortage and Drought Response Standards. This ordinance includes prohibitions against water waste and water shortage response measures.
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.			
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.			

At Least As effective As



CUWCC BMP Retail Coverage Report 2013
Foundational Best Management Practices for Urban Water Efficiency

BMP 1.1 Operation Practices

ON TRACK

Exemption

Comments:



CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.2 Water Loss Control

NOT ON TRACK

7050 South Tahoe Public Utility District

- Completed Standard Water Audit Using AWWA Software? Yes
- AWWA File provided to CUWCC? Yes
- AWWA Water Audit Software 2013.xls
- AWWA Water Audit Validity Score? 65
- Complete Training in AWWA Audit Method Yes
- Complete Training in Component Analysis Process? Yes
- Component Analysis? No
- Repaired all leaks and breaks to the extent cost effective? Yes
- Locate and Repair unreported leaks to the extent cost effective? Yes
- Maintain a record keeping system for the repair of reported leaks, including time of report, leak location, type of leaking pipe segment or fitting, and leak running time from report to repair. Yes

Provided 7 Types of Water Loss Control Info

Leaks Repairs	Value Real Losses	Value Apparent Losses	Miles Surveyed	Press Reduction	Cost Of Interventions	Water Saved (AF)

At Least As effective As

Exemption

Comments:



CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.3 Metering With Commodity

NOT ON TRACK

7050 South Tahoe Public Utility District

Numbered Unmetered Accounts Yes

Metered Accounts billed by volume of use Yes

Number of CII Accounts with Mixed Use Meters 548

Conducted a feasibility study to assess merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters? No

Feasibility Study provided to CUWCC? No

Date: 1/1/0001

Uploaded file name:

Completed a written plan, policy or program to test, repair and replace meters Yes

At Least As effective As

Exemption

Comments:



CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.4 Retail Conservation Pricing

Not On Track

7050 South Tahoe Public Utility District

Implementation (Water Rate Structure)

Customer Class	Water Rate Type	Conserving Rate?	(V) Total Revenue Commodity Charges	(M) Total Revenue Fixed Carges
Single-Family	Non-Volumetric Flat Rate	No	0	3794308.58
Single-Family	Increasing Block	Yes	688915.81	1574641.8
Multi-Family	Non-Volumetric Flat Rate	No	0	729009.43
Multi-Family	Uniform	Yes	278680.95	386212.33
Commercial	Non-Volumetric Flat Rate	No	0	111990.5
Commercial	Uniform	Yes	805372.31	941309.8
			1772969.07	7537472.44

Calculate: $V / (V + M)$ 19 %

Implementation Option: Use Annual Revenue As Reported

Use 3 years average instead of most recent year

Canadian Water and Wastewater Association

Upload file:

Agency Provide Sewer Service: Yes

Customer Class	Rate Type	Conserving Rate?
Single-Family	Non-Volumetric Flat Rate	No
Multi-Family	Non-Volumetric Flat Rate	No
Commercial	Non-Volumetric Flat Rate	No

At Least As effective As

Exemption

Comments:



CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.1 Public Outreach

ON TRACK

7050

South Tahoe Public Utility District

Retail

Does your agency perform Public Outreach programs? Yes

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

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

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

Public Outreach Program List	Number
Landscape water conservation media campaigns	200
Flyers and/or brochures (total copies), bill stuffers, messages printed on bill, information packets	17000
General water conservation information	2000
Newsletter articles on conservation	500
Website	100
Total	19800

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

Number Media Contacts	Number
Television contacts	16
Newspaper contacts	6
Radio contacts	4
Total	26

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

Public Information Program Annual Budget

Annual Budget Category	Annual Budget Amount
Public Information	50000
Total Amount:	50000

Public Outreach Additional Programs

Water Conservation Booth at local events

Water Conservation Program Brochure

"On Hold" Phone Message with Conservation Information

Description of all other Public Outreach programs

Tahoe Resource Conservation District; South Tahoe Environmental Education Coalition



CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.1 Public Outreach

ON TRACK

Comments:

At Least As effective As

Exemption



CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.2 School Education Programs

ON TRACK

7050 South Tahoe Public Utility District

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

Materials meet state education framework requirements? Yes

The Water Conservation Specialist is certified to teach Project WET Curriculum. All lessons plans are approved by the Lake Tahoe Unified School District prior to implementation.

Materials distributed to K-6? Yes

STPUD is part of the South Tahoe Environmental Education Coalition. Each year, STPUD leads activities for K-6 students during Wonders of Water and Outdoor Explore! - week long programs designed to educate children on water and habitat conservation.

Materials distributed to 7-12 students? No (Info Only)

Annual budget for school education program: 50000.00

Description of all other water supplier education programs

The Water Conservation Specialist provides kids WC activity sheets for teachers to use in the classroom and provides tours to treatment facility for students.

Comments:

At Least As effective As No

Exemption No 0



CUWCC BMP Coverage Report 2013

BMP3 - Residential

NOT ON TRACK

Agency **South Tahoe Public Utility District**

Date Agency Signed MOU: 3/17/2010

Coverage Option: Traditional

Total Measured Water Savings (AF/Year)

TRADITIONAL	FLEXTRACK	ACTUAL	TARGET	Prior Activities Credit
4.74	0	4.74	15.12	

Residential Assistance

	Single Family Accounts	Single Family Target	Multi Family Units	Multi Family Target
Total Number Of Accounts/Units	12123		1143	
Total Participants during Reporting				
Number of Leak Detection Surveys or Assistance on Customer Property	50	181.85	0	17.15
Number of Faucet Aerators Distributed	41		0	
Number of WSS Showerheads Distributed	6		0	
Landscape Water Surveys	3	181.84	0	

Has agency reached a 75% market saturation for showerheads?

No

High Efficiency Clothes Washers

Single Family Accounts

Single Family Target

Number of installations for HECW

39

72.74

Are financial incentives provided for HECWs?

Yes

Has agency completed a HECW Market Penetration Study?

No

Water Sense Specification Toilets

Retrofit 'On Resale' Ordinance exists No

75% Market Penetration Achieved No

Single Family Units

Multi Family Units

Five year average Resale Rate

0.00

0.00

Number Toilets per Household

2

1.5

Number WSS Toilets Installed

44

2

Target Number of WSS Toilets

0.00

0.00

WSS for New Residential Development

Does an Ordinance Exists Requiring WSS Fixtures and Appliances in new SF and MF residences?

Single Family Units

Multi Family Units

No

No

Number of new SF & MF units built

0

0

Incentives



CUWCC BMP Coverage Report 2013

BMP3 - Residential

NOT ON TRACK

Unique Conservation Measures

Residential Assistance / Landscape Water Survey unique water savings

Measured water savings (AF/YR) 0

Uploaded file name:

High Efficiency Clothes Washers unique water savings

Measured water savings (AF/YR) 0

Uploaded file name:

WaterSense Specification toilets unique water savings

SF Measured water savings (AF/YR) MF Measured water savings (AF/YR)

Uploaded file name:

WaterSense Specification toilets for New Residential development unique water savings

Measured water savings (AF/YR) 0

Uploaded file name:

High bill contact with single-family and multi-family customers

Measured water savings (AF/YR)

Uploaded file name:

Educate residential customers about the behavioral aspects of water conservation

Measured water savings (AF/YR) 0

Uploaded file name:

Notify residential customers of leaks on the customer's side of the meters

Measured water savings (AF/YR) 0

Uploaded file name:

Provide bill or surcharge refunds for customers to repair leaks on the customer's side of the meters

Measured water savings (AF/YR) 0

Uploaded file name:

Provide unique water savings fixtures that are not included in the BMP list above

Measured water savings (AF/YR) 0

Uploaded file name:

Install residence water use monitors

Measured water savings (AF/YR) 0

Uploaded file name:

Participate in programs that provide residences with school water conservation kits

Measured water savings (AF/YR) 0

Uploaded file name:

Implement in automatic meter reading program for residential customers



CUWCC BMP Coverage Report 2013

BMP3 - Residential

NOT ON TRACK

Measured water savings (AF/YR) 0

Uploaded file name:

OTHER Types of Measures

Measured water savings (AF/YR) 0

Uploaded file name:

Traditional Water Savings Calculation result:

Measures	Target Water Savings (AF):	Actual Water Savings (AF):
SF Leak Detection Surveys	4.07	1.12
MF Leak Detection Surveys	0.19	0.00
Landscape Water Surveys	4.07	0.07
SF WSS Toilets Installed	0.00	1.27
MF WSS Toilets Installed	0.00	0.10
HECW	6.79	2.18

Comments:

At Least As Effective As No

Exemption No



CUWCC BMP Coverage Report 2013

BMP4 - Commercial Industrial Institutional

NOT ON TRACK

Agency: **South Tahoe Public Utility District**

Date Agency Signed MOU: 3/17/2010

Coverage Option: Traditional

CII Baseline Water Use (AF): 1186.00

CII Water Use Reduction(AF): 118.6

Total Measured Water Savings (AF/Year)

TRADITIONAL	FLEXTRACK	ACTUAL	TARGET	Prior Activities Credit
1.5	0	1.5		

<u>Water Efficiency Measures:</u>	<u>Quantity Installed:</u>	<u>Water Savings:</u>	<u>Accept Council's default value</u>
1 High Efficiency Toilets (1.2 GPF or less)	50	1.45	Yes
2 High Efficiency Urinals (0.5 GPF or less)	0		No
3 Ultra Low Flow Urinals	0.00		No
4 Zero Consumption Urinals	0.00		No
5 Commercial High Efficiency Single Load Clothes Washers	0.00		No
6 Cooling Tower Conductivity Controllers	0.00		No
7 Cooling Tower pH Controllers	0.00		No
8 Connectionless Food Steamers	0.00		No
9 Medical Equipment Steam Sterilizers	0.00		No
10 Water Efficient Ice Machines	0.00		No
11 Pressurized Water Brooms	0.00		No
12 Dry Vacuum Pumps	0.00		No

Total Water Savings: 1.45

Unique Conservation Measures

Industrial Process Water Use Reduction

Measured water savings (AF/YR)

Uploaded file name:

Commercial Laundry Retrofits

Measured water savings (AF/YR)

Uploaded file name:

Industrial Laundry Retrofits

Measured water savings (AF/YR)

Uploaded file name:

Filter Upgrades (for pools, spas and fountains)



CUWCC BMP Coverage Report 2013

BMP4 - Commercial Industrial
Institutional

NOT ON TRACK

Measured water savings (AF/YR)

Uploaded file name:

Car Wash Reclamation Systems

Measured water savings (AF/YR)

Uploaded file name:

Wet Cleaning

Measured water savings (AF/YR)

Uploaded file name:

Water Audits (to avoid double counting, do not include device/replacement water savings)

Measured water savings (AF/YR)

Uploaded file name:

Clean In Place (CIP) Technology (such as bottle sterilization in a beverage processing plant)

Measured water savings (AF/YR)

Uploaded file name:

Waterless Wok

Measured water savings (AF/YR)

Uploaded file name:

Alternative On-site Water Sources

Measured water savings (AF/YR)

Uploaded file name:

Sub-metering

Measured water savings (AF/YR)

Uploaded file name:

High Efficiency Showerheads

Measured water savings (AF/YR)

Uploaded file name:

Faucet Flow Restrictors

Measured water savings (AF/YR) 0.72

Uploaded file name:

Water Efficiency Dishwashers

Measured water savings (AF/YR)

Uploaded file name:

Hot Water on Demand

Measured water savings (AF/YR)

Uploaded file name:

Pre-rinse spray Valves of 1.3 gpm (gallons per minute) or less



CUWCC BMP Coverage Report 2013

BMP4 - Commercial Industrial

NOT ON TRACK

Institutional

Pre-rinse spray Valves of 1.3 gpm (gallons per minute) or less

Measured water savings (AF/YR)

Uploaded file name:

Central Flush Systems

Measured water savings (AF/YR)

Uploaded file name:

IOther Measures chosen by the Agency

Measured water savings (AF/YR)

Uploaded file name:

Comments:

At Least As Effective As No

Exemption No



CUWCC BMP Coverage Report 2013

BMP5 - Landscape

NOT ON TRACK

Agency **South Tahoe Public Utility District**

Date Agency Signed MOU: 3/17/2010

Coverage Option: Traditional

Total Measured Water Savings (AF/Year)

TRADITIONAL	FLEXTRACK	ACTUAL	TARGET	PRIOR ACTIVITIES CREDIT
0	0	0	0	0

1) Accounts with Dedicated Irrigation Meters

- a) Number of dedicated irrigation meter accounts 1
- b) Number of dedicated irrigation meter accounts with water budgets 0
- c) Aggregate water use for all dedicated non-recreational landscape accounts with water budgets
- d) Aggregate acreage assigned water budgets for dedicated non-recreational landscape accounts with budgets

Aggregate acreage of recreational areas assigned water budgets for dedicated recreational landscape accounts with budgets

Preserved water use records and budgets for customers with dedicated landscape irrigation accounts for at least four years No

Unique measured water Savings (AF/YR) in this measure

Uploaded the backup data if there are unique measured water savings? No

Technical Assistance

Number of Accounts 20% over-budget

Number of Accounts 20% over-budget offered technical assistance

Number of Accounts 20% over-budget accepting technical assistance

Unique measured water Savings (AF/YR) in technical assistance

Uploaded the backup data if there are unique measured water savings? No

2) Commercial / Industrial / Institutional Accounts without Meters or with Mixed-Use Meters

Number of mixed use and un-metered accounts. 680

Number of irrigation water use surveys offered 0

Number of irrigation water use surveys accepted 0

Type: Incentives numbers received by customers: \$ Value: 0

Type: Rebates numbers received by customers: \$ Value: 0

Type No- or low-Interest loan offered numbers received by customers: \$ Value: 0

Annual water savings by customers receiving irrigation water savings surveys and implementing recommendations

Estimated annual water savings by customers receiving surveys and implementing recommendations



CUWCC BMP Coverage Report 2013

BMP5 - Landscape

NOT ON TRACK

Unique measured water Savings (AF/YR) in this measure

Uploaded the backup data if there are unique measured water savings? No

Financial Incentives

Number Of Incentives	Dollar Value Of Incentives	Incentive Types
0	400	Rebate

Unique measured water Savings (AF/YR) in Financial incentives

Uploaded the backup data if there are unique measured water savings? No

Unique Conservation Measures

1. Monitor and report on landscape water use

1a. Measure landscapes and develop water budgets for customers with dedicated landscape meters. Provide timely water use reports with comparisons of water use to budget that provide customers the information they need to adjust irrigation schedules.

Uploaded file name:

1b. Measure landscapes and develop water budgets for customers with Mixed Use meters. Provide timely water use reports with comparisons of water use to budget that provide customers the information they need to adjust irrigation schedules.

Uploaded file name:

1c. Establish agency-wide water budget. (Include in Help notes: ETo based water budget in the MWELo changed in 2010 from .8ETo to .7ETo.)

Uploaded file name:

1d. Establish agency-wide, sector-based irrigation goal to reduce water use, based on season.

Uploaded file name:

2. Provide technical landscape resources and training

2a. Upon customer requests, provide landscape irrigation management and landscape design information and resources: provide assistance, answer customer questions, respond to run-off and high-bill calls.

Uploaded file name:

2b. Perform landscape & irrigation audits: including irrigation scheduling, plant information, and landscape area measurement.

Uploaded file name:

2c. Sponsor, co-sponsor, promote, or support landscape workshops, training, presentations and other technical educational events for homeowners and professionals: design, installation, maintenance, water management.

Uploaded file name:

2d. Establish time-of-day irrigation restrictions.

Uploaded file name:

2e. Establish day-of-week irrigation restrictions.

Uploaded file name:



CUWCC BMP Coverage Report 2013

BMP5 - Landscape

NOT ON TRACK

3. Provide incentives

3a. Establish landscape budget-based rates.

Uploaded file name:

3b. Provide incentives for conversions from mixed-use meters to dedicated landscape meters.

Uploaded file name:

3c. Provide incentives for irrigation equipment upgrades that improve distribution uniformity, irrigation efficiency, or scheduling capabilities.

Uploaded file name:

3d. Provide incentives for the reduction of water use over an irrigated area, or reduction in the size of the irrigated area due to replacement of turf or other high water-using plants with low water-using plants, artificial turf, or permeable surfaces.

Uploaded file name:

3e. Provide incentives for conversions from potable to recycled water.

Uploaded file name:

3f. Provide incentives for the use of alternative sources of water in the landscape (i.e. gray water, rainwater, cisterns, etc.)

Uploaded file name:

4. Participate in local and regional planning and regulatory activities

4a. Collaborate with planning agencies at the local and regional level, other water suppliers in the area and stakeholders in response to state or federal requirements such as the State Model Water Efficient Landscape Ordinance and AB 1881. Participate in the development, review, implementation, and enforcement of requirements for new developments. Provide water use data to planning agencies.

4b. Establish or participate in a water conservation advisory committee or other community outreach effort to drive market transformation and exchange information about landscape water conservation with developers, community-based organizations, homeowners associations, residential customers, landscape professionals, educators, other water suppliers in region.

4c. Participate in regional efforts: integrated water resource management, watershed management, NPDES permit agencies, etc.

5. Develop a holistic approach to landscape water use efficiency

5a. Develop and implement a comprehensive landscape water conservation program for all customers. Target marketing efforts to those most likely to result in benefits to both customer and Agency.

Uploaded file name:

6. Other Measures

Other Landscape Measures.

Uploaded file name:

Comments:



CUWCC BMP Coverage Report 2013

BMP5 - Landscape

NOT ON TRACK

At Least As Effective As No

Exemption No



CUWCC BMP Retail Coverage Report 2014

Foundational Best Management Practices for Urban Water Efficiency

BMP 1.1 Operation Practices

ON TRACK

7050 South Tahoe Public Utility District

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

Name:

Title:

Email:

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.	STPUD Water Conservation Ordinance.pdf		In 2004, the Board of Directors for the South Tahoe Public Utility District enacted ordinance # 487-04 on Water Shortage and Drought Response Standards. This ordinance includes prohibitions against water waste and water shortage response measures.
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.			
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.			

At Least As effective As



CUWCC BMP Retail Coverage Report 2014
Foundational Best Management Practices for Urban Water Efficiency

BMP 1.1 Operation Practices

ON TRACK

Exemption

Comments:



CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.2 Water Loss Control

NOT ON TRACK

7050 South Tahoe Public Utility District

- Completed Standard Water Audit Using AWWA Software? Yes
- AWWA File provided to CUWCC? Yes
- AWWA Water Audit Software 2014.xls
- AWWA Water Audit Validity Score? 65
- Complete Training in AWWA Audit Method Yes
- Complete Training in Component Analysis Process? Yes
- Component Analysis? No
- Repaired all leaks and breaks to the extent cost effective? Yes
- Locate and Repair unreported leaks to the extent cost effective? Yes
- Maintain a record keeping system for the repair of reported leaks, including time of report, leak location, type of leaking pipe segment or fitting, and leak running time from report to repair. Yes

Provided 7 Types of Water Loss Control Info

Leaks Repairs	Value Real Losses	Value Apparent Losses	Miles Surveyed	Press Reduction	Cost Of Interventions	Water Saved (AF)
125				False	250000	

At Least As effective As

Exemption

Comments:



CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.3 Metering With Commodity

NOT ON TRACK

7050 South Tahoe Public Utility District

Numbered Unmetered Accounts Yes

Metered Accounts billed by volume of use Yes

Number of CII Accounts with Mixed Use Meters 548

Conducted a feasibility study to assess merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters? No

Feasibility Study provided to CUWCC? No

Date: 1/1/0001

Uploaded file name:

Completed a written plan, policy or program to test, repair and replace meters Yes

At Least As effective As

Exemption

Comments:



CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.4 Retail Conservation Pricing

Not On Track

7050 South Tahoe Public Utility District

Implementation (Water Rate Structure)

Customer Class	Water Rate Type	Conserving Rate?	(V) Total Revenue Comodity Charges	(M) Total Revenue Fixed Carges
Single-Family	Non-Volumetric Flat Rate	No	0	3728814.49
Single-Family	Increasing Block	Yes	715723.3	1774673.55
Multi-Family	Non-Volumetric Flat Rate	No		694543.91
Multi-Family	Uniform	Yes	311519.01	439471.08
Commercial	Non-Volumetric Flat Rate	No		107634.84
Commercial	Uniform	Yes	820886.33	976749.66
			1848128.64	7721887.53

Calculate: $V / (V + M)$ 19 %

Implementation Option: Use Annual Revenue As Reported

Use 3 years average instead of most recent year

Canadian Water and Wastewater Association

Upload file:

Agency Provide Sewer Service: Yes

Customer Class	Rate Type	Conserving Rate?
Single-Family	Non-Volumetric Flat Rate	No
Multi-Family	Non-Volumetric Flat Rate	No
Commercial	Non-Volumetric Flat Rate	No

At Least As effective As

Exemption

Comments:



CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.1 Public Outreach

ON TRACK

7050

South Tahoe Public Utility District

Retail

Does your agency perform Public Outreach programs? Yes

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

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

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

Public Outreach Program List	Number
Landscape water conservation media campaigns	150
Flyers and/or brochures (total copies), bill stuffers, messages printed on bill, information packets	17000
General water conservation information	2000
Newsletter articles on conservation	250
Website	100
Total	19500

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

Number Media Contacts	Number
Television contacts	20
Newspaper contacts	6
Radio contacts	4
Total	30

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

Public Information Program Annual Budget

Annual Budget Category	Annual Budget Amount
Public Information	20000
Total Amount:	20000

Public Outreach Additional Programs

Water Conservation Booth at local events

Water Conservation Program Brochure

"On Hold" Phone Message with Conservation Information

Sustainable Landscaping Workshops

Description of all other Public Outreach programs

Tahoe Resource Conservation District; South Tahoe Environmental Education Coalition



CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.1 Public Outreach

ON TRACK

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

7050 South Tahoe Public Utility District

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

Materials meet state education framework requirements? Yes

The Water Conservation Specialist is certified to teach Project WET Curriculum. All lessons plans are approved by the Lake Tahoe Unified School District prior to implementation.

Materials distributed to K-6? Yes

STPUD is part of the South Tahoe Environmental Education Coalition. Each year, STPUD leads activities for K-6 students during Wonders of Water and Outdoor Explore! - week long programs designed to educate children on water and habitat conservation.

Materials distributed to 7-12 students? No (Info Only)

Annual budget for school education program: 20000.00

Description of all other water supplier education programs

The Water Conservation Specialist provides kids WC activity sheets for teachers to use in the classroom and provides tours to treatment facility for students.

Comments:

At Least As effective As No

Exemption No 0



CUWCC BMP Coverage Report 2014

BMP3 - Residential

NOT ON TRACK

Agency **South Tahoe Public Utility District**

Date Agency Signed MOU: 3/17/2010

Coverage Option: Traditional

Total Measured Water Savings (AF/Year)

TRADITIONAL	FLEXTRACK	ACTUAL	TARGET	Prior Activities Credit
9.81	0	9.81	15.19	

Residential Assistance

	Single Family Accounts	Single Family Target	Multi Family Units	Multi Family Target
Total Number Of Accounts/Units	12175		1145	
Total Participants during Reporting				
Number of Leak Detection Surveys or Assistance on Customer Property	53	182.63	0	17.18
Number of Faucet Aerators Distributed	22		0	
Number of WSS Showerheads Distributed	6		0	
Landscape Water Surveys	5	182.62	0	

Has agency reached a 75% market saturation for showerheads?

No

High Efficiency Clothes Washers

Single Family Accounts

Single Family Target

Number of installations for HECW

37

73.05

Are financial incentives provided for HECWs?

Yes

Has agency completed a HECW Market Penetration Study?

No

Water Sense Specification Toilets

Retrofit 'On Resale' Ordinance exists No

75% Market Penetration Achieved No

Single Family Units

Multi Family Units

Five year average Resale Rate

0.00

0.00

Number Toilets per Household

2

1.5

Number WSS Toilets Installed

67

0

Target Number of WSS Toilets

0.00

0.00

WSS for New Residential Development

Does an Ordinance Exist Requiring WSS Fixtures and Appliances in new SF and MF residences?

Single Family Units

Multi Family Units

No

No

Number of new SF & MF units built

0

0

Incentives



CUWCC BMP Coverage Report 2014

BMP3 - Residential

NOT ON TRACK

Unique Conservation Measures

Residential Assistance / Landscape Water Survey unique water savings

Measured water savings (AF/YR) 0

Uploaded file name:

High Efficiency Clothes Washers unique water savings

Measured water savings (AF/YR) 0

Uploaded file name:

WaterSense Specification toilets unique water savings

SF Measured water savings (AF/YR) MF Measured water savings (AF/YR)

Uploaded file name:

WaterSense Specification toilets for New Residential development unique water savings

Measured water savings (AF/YR) 0

Uploaded file name:

High bill contact with single-family and multi-family customers

Measured water savings (AF/YR)

Uploaded file name:

Educate residential customers about the behavioral aspects of water conservation

Measured water savings (AF/YR) 0

Uploaded file name:

Notify residential customers of leaks on the customer's side of the meters

Measured water savings (AF/YR) 0

Uploaded file name: Sample High Water Usage Letter.pdf

Provide bill or surcharge refunds for customers to repair leaks on the customer's side of the meters

Measured water savings (AF/YR) 0

Uploaded file name:

Provide unique water savings fixtures that are not included in the BMP list above

Measured water savings (AF/YR) 0

Uploaded file name:

Install residence water use monitors

Measured water savings (AF/YR) 0

Uploaded file name:

Participate in programs that provide residences with school water conservation kits

Measured water savings (AF/YR) 0

Uploaded file name:

Implement in automatic meter reading program for residential customers



CUWCC BMP Coverage Report 2014

BMP3 - Residential

NOT ON TRACK

Measured water savings (AF/YR) 0

Uploaded file name:

OTHER Types of Measures

Measured water savings (AF/YR) 0

Uploaded file name:

Traditional Water Savings Calculation result:

Measures	Target Water Savings (AF):	Actual Water Savings (AF):
SF Leak Detection Surveys	4.09	2.08
MF Leak Detection Surveys	0.19	0.00
Landscape Water Surveys	4.09	0.17
SF WSS Toilets Installed	0.00	3.20
MF WSS Toilets Installed	0.00	0.10
HECW	6.82	4.26

Comments:

At Least As Effective As No

Exemption No



CUWCC BMP Coverage Report 2014

BMP4 - Commercial Industrial Institutional

NOT ON TRACK

Agency: **South Tahoe Public Utility District**

Date Agency Signed MOU: 3/17/2010

Coverage Option: Traditional

CII Baseline Water Use (AF): 1186.00

CII Water Use Reduction(AF): 118.6

Total Measured Water Savings (AF/Year)

TRADITIONAL	FLEXTRACK	ACTUAL	TARGET	Prior Activities Credit
0.08	0	0.08	51	

<u>Water Efficiency Measures:</u>	<u>Quantity Installed:</u>	<u>Water Savings:</u>	<u>Accept Council's default value</u>
1 High Efficiency Toilets (1.2 GPF or less)	1	0.03	Yes
2 High Efficiency Urinals (0.5 GPF or less)	0		No
3 Ultra Low Flow Urinals	0.00		No
4 Zero Consumption Urinals	0.00		No
5 Commercial High Efficiency Single Load Clothes Washers	1.00	0.05	Yes
6 Cooling Tower Conductivity Controllers	0.00		No
7 Cooling Tower pH Controllers	0.00		No
8 Connectionless Food Steamers	0.00		No
9 Medical Equipment Steam Sterilizers	0.00		No
10 Water Efficient Ice Machines	0.00		No
11 Pressurized Water Brooms	0.00		No
12 Dry Vacuum Pumps	0.00		No

Total Water Savings: 0.08

Unique Conservation Measures

Industrial Process Water Use Reduction

Measured water savings (AF/YR)

Uploaded file name:

Commercial Laundry Retrofits

Measured water savings (AF/YR)

Uploaded file name:

Industrial Laundry Retrofits

Measured water savings (AF/YR)

Uploaded file name:

Filter Upgrades (for pools, spas and fountains)



CUWCC BMP Coverage Report 2014

BMP4 - Commercial Industrial
Institutional

NOT ON TRACK

Measured water savings (AF/YR)

Uploaded file name:

Car Wash Reclamation Systems

Measured water savings (AF/YR)

Uploaded file name:

Wet Cleaning

Measured water savings (AF/YR)

Uploaded file name:

Water Audits (to avoid double counting, do not include device/replacement water savings)

Measured water savings (AF/YR)

Uploaded file name:

Clean In Place (CIP) Technology (such as bottle sterilization in a beverage processing plant)

Measured water savings (AF/YR)

Uploaded file name:

Waterless Wok

Measured water savings (AF/YR)

Uploaded file name:

Alternative On-site Water Sources

Measured water savings (AF/YR)

Uploaded file name:

Sub-metering

Measured water savings (AF/YR)

Uploaded file name:

High Efficiency Showerheads

Measured water savings (AF/YR)

Uploaded file name:

Faucet Flow Restrictors

Measured water savings (AF/YR)

Uploaded file name:

Water Efficiency Dishwashers

Measured water savings (AF/YR)

Uploaded file name:

Hot Water on Demand

Measured water savings (AF/YR)

Uploaded file name:

Pre-rinse spray Valves of 1.3 gpm (gallons per minute) or less



CUWCC BMP Coverage Report 2014

BMP4 - Commercial Industrial

NOT ON TRACK

Institutional

Pre-rinse spray Valves of 1.3 gpm (gallons per minute) or less

Measured water savings (AF/YR)

Uploaded file name:

Central Flush Systems

Measured water savings (AF/YR)

Uploaded file name:

IOther Measures chosen by the Agency

Measured water savings (AF/YR)

Uploaded file name:

Comments:

At Least As Effective As No

Exemption No



CUWCC BMP Coverage Report 2014

BMP5 - Landscape

NOT ON TRACK

Agency **South Tahoe Public Utility District**

Date Agency Signed MOU: 3/17/2010

Coverage Option: Traditional

Total Measured Water Savings (AF/Year)

TRADITIONAL	FLEXTRACK	ACTUAL	TARGET	PRIOR ACTIVITIES CREDIT
0.01	0	0.01	36.48	0

1) Accounts with Dedicated Irrigation Meters

- a) Number of dedicated irrigation meter accounts 1
- b) Number of dedicated irrigation meter accounts with water budgets 0
- c) Aggregate water use for all dedicated non-recreational landscape accounts with water budgets
- d) Aggregate acreage assigned water budgets for dedicated non-recreational landscape accounts with budgets

Aggregate acreage of recreational areas assigned water budgets for dedicated recreational landscape accounts with budgets

Preserved water use records and budgets for customers with dedicated landscape irrigation accounts for at least four years No

Unique measured water Savings (AF/YR) in this measure

Uploaded the backup data if there are unique measured water savings? No

Technical Assistance

Number of Accounts 20% over-budget

Number of Accounts 20% over-budget offered technical assistance

Number of Accounts 20% over-budget accepting technical assistance

Unique measured water Savings (AF/YR) in technical assistance

Uploaded the backup data if there are unique measured water savings? No

2) Commercial / Industrial / Institutional Accounts without Meters or with Mixed-Use Meters

Number of mixed use and un-metered accounts. 672

Number of irrigation water use surveys offered 1

Number of irrigation water use surveys accepted 1

Type: Incentives numbers received by customers: \$ Value: 0

Type: Rebates numbers received by customers: \$ Value: 0

Type No- or low-Interest loan offered numbers received by customers: \$ Value: 0

Annual water savings by customers receiving irrigation water savings surveys and implementing recommendations

Estimated annual water savings by customers receiving surveys and implementing recommendations



CUWCC BMP Coverage Report 2014

BMP5 - Landscape

NOT ON TRACK

Unique measured water Savings (AF/YR) in this measure

Uploaded the backup data if there are unique measured water savings? No

Financial Incentives

Number Of Incentives	Dollar Value Of Incentives	Incentive Types
0	400	Rebate

Unique measured water Savings (AF/YR) in Financial incentives

Uploaded the backup data if there are unique measured water savings? No

Unique Conservation Measures

1. Monitor and report on landscape water use

1a. Measure landscapes and develop water budgets for customers with dedicated landscape meters. Provide timely water use reports with comparisons of water use to budget that provide customers the information they need to adjust irrigation schedules.

Uploaded file name:

1b. Measure landscapes and develop water budgets for customers with Mixed Use meters. Provide timely water use reports with comparisons of water use to budget that provide customers the information they need to adjust irrigation schedules.

Uploaded file name:

1c. Establish agency-wide water budget. (Include in Help notes: ETo based water budget in the MWELo changed in 2010 from .8ETo to .7ETo.)

Uploaded file name:

1d. Establish agency-wide, sector-based irrigation goal to reduce water use, based on season.

Uploaded file name:

2. Provide technical landscape resources and training

2a. Upon customer requests, provide landscape irrigation management and landscape design information and resources: provide assistance, answer customer questions, respond to run-off and high-bill calls.

Uploaded file name:

2b. Perform landscape & irrigation audits: including irrigation scheduling, plant information, and landscape area measurement.

Uploaded file name:

2c. Sponsor, co-sponsor, promote, or support landscape workshops, training, presentations and other technical educational events for homeowners and professionals: design, installation, maintenance, water management.

Uploaded file name:

2d. Establish time-of-day irrigation restrictions.

Uploaded file name:

2e. Establish day-of-week irrigation restrictions.

Uploaded file name:



CUWCC BMP Coverage Report 2014

BMP5 - Landscape

NOT ON TRACK

3. Provide incentives

3a. Establish landscape budget-based rates.

Uploaded file name:

3b. Provide incentives for conversions from mixed-use meters to dedicated landscape meters.

Uploaded file name:

3c. Provide incentives for irrigation equipment upgrades that improve distribution uniformity, irrigation efficiency, or scheduling capabilities.

Uploaded file name:

3d. Provide incentives for the reduction of water use over an irrigated area, or reduction in the size of the irrigated area due to replacement of turf or other high water-using plants with low water-using plants, artificial turf, or permeable surfaces.

Uploaded file name:

3e. Provide incentives for conversions from potable to recycled water.

Uploaded file name:

3f. Provide incentives for the use of alternative sources of water in the landscape (i.e. gray water, rainwater, cisterns, etc.)

Uploaded file name:

4. Participate in local and regional planning and regulatory activities

4a. Collaborate with planning agencies at the local and regional level, other water suppliers in the area and stakeholders in response to state or federal requirements such as the State Model Water Efficient Landscape Ordinance and AB 1881. Participate in the development, review, implementation, and enforcement of requirements for new developments. Provide water use data to planning agencies.

4b. Establish or participate in a water conservation advisory committee or other community outreach effort to drive market transformation and exchange information about landscape water conservation with developers, community-based organizations, homeowners associations, residential customers, landscape professionals, educators, other water suppliers in region.

4c. Participate in regional efforts: integrated water resource management, watershed management, NPDES permit agencies, etc.

5. Develop a holistic approach to landscape water use efficiency

5a. Develop and implement a comprehensive landscape water conservation program for all customers. Target marketing efforts to those most likely to result in benefits to both customer and Agency.

Uploaded file name:

6. Other Measures

Other Landscape Measures.

Uploaded file name:

Comments:



CUWCC BMP Coverage Report 2014

BMP5 - Landscape

NOT ON TRACK

At Least As Effective As No

Exemption No

Appendix E
60-Day Notification



South Tahoe Public Utility District

General Manager
Richard H. Solbrig

Directors
Chris Cefalu
James R. Jones
Randy Vogelgesang
Kelly Sheehan
Duane Wallace

1275 Meadow Crest Drive • South Lake Tahoe • CA 96150-7401
Phone 530 544-6474 • Fax 530 541-0614 • www.stpud.us

March 3, 2016

Roger Trout
Planning Director
El Dorado County, Development Services
2850 Fairlane Court, Building C
Placerville, CA 95667

RE: South Tahoe Public Utility District 2015 UWMP Notice

Dear Mr. Trout,

The South Tahoe Public Utility 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 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 (530) 543-6251.

Sincerely,

Randy Curtis
Manager of Field Operations
(530) 543-6251
rcurtis@stpud.dst.ca.us



South Tahoe Public Utility District

General Manager
Richard H. Solbrig

Directors
Chris Cefalu
James R. Jones
Randy Vogelgesang
Kelly Sheehan
Duane Wallace

1275 Meadow Crest Drive • South Lake Tahoe • CA 96150-7401
Phone 530 544-6474 • Fax 530 541-0614 • www.stpud.us

March 3, 2016

Joanne Marchetta
Executive Director
Tahoe Regional Planning Agency
P.O. Box 5310
Stateline, NV 89449

RE: South Tahoe Public Utility District 2015 UWMP Notice

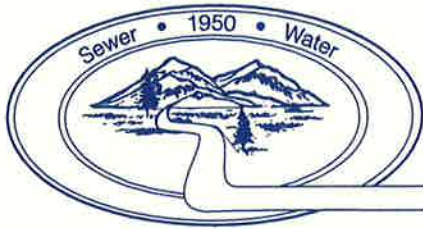
Dear Ms. Marchetta,

The South Tahoe Public Utility 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 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 (530) 543-6251.

Sincerely,

Randy Curtis
Manager of Field Operations
(530) 543-6251
rcurtis@stpud.dst.ca.us



South Tahoe Public Utility District

General Manager
Richard H. Solbrig

Directors
Chris Cefalu
James R. Jones
Randy Vogelgesang
Kelly Sheehan
Duane Wallace

1275 Meadow Crest Drive • South Lake Tahoe • CA 96150-7401
Phone 530 544-6474 • Fax 530 541-0614 • www.stpud.us

March 3, 2016

Ken Payne
Executive Director
El Dorado Water Agency
4110 B Business Drive
Cameron Park, CA 95682

RE: South Tahoe Public Utility District 2015 UWMP Notice

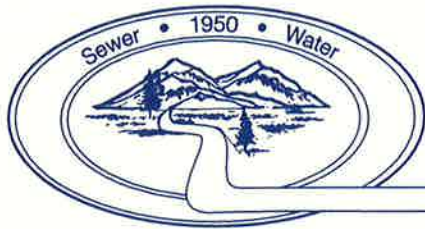
Dear Mr. Payne,

The South Tahoe Public Utility 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 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 (530) 543-6251.

Sincerely,

Randy Curtis
Manager of Field Operations
(530) 543-6251
rcurtis@stpud.dst.ca.us



South Tahoe Public Utility District

General Manager
Richard H. Solbrig

Directors
Chris Cefalu
James R. Jones
Randy Vogelgesang
Kelly Sheehan
Duane Wallace

1275 Meadow Crest Drive • South Lake Tahoe • CA 96150-7401
Phone 530 544-6474 • Fax 530 541-0614 • www.stpud.us

March 3, 2016

Nancy Kerry
City Manager
City of South Lake Tahoe
1901 Airport Road, Suite 203
South Lake Tahoe, CA 96150

RE: South Tahoe Public Utility District 2015 UWMP Notice

Dear Ms. Kerry,

The South Tahoe Public Utility 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 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 (530) 543-6251.

Sincerely,

Randy Curtis
Manager of Field Operations
(530) 543-6251
rcurtis@stpud.dst.ca.us

Appendix F
Public Hearing Notification



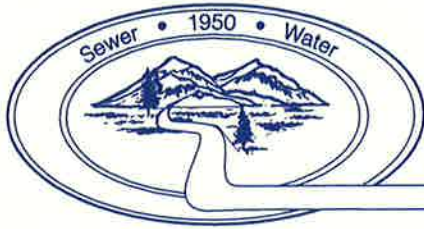
**Public Notice
South Tahoe
Public Utility
District**

**Urban Water
Management Plan
Public Hearing**

**Date: June 16, 2016
Time: 2:00 p.m.
Location: Board Room
1275 Meadow Crest Drive
South Lake Tahoe, CA**

A Public Hearing will be held to receive comments on the 2015 Urban Water Management Plan on June 16, 2016, at 2:00 p.m., at the South Tahoe Public Utility District Board Room, 1275 Meadow Crest Drive, South Lake Tahoe, California. The Urban Water Management Plan is required to be submitted to the California Department of Water Resources every five years.

The Board Agenda will be available for review beginning June 10, 2016, at the District Office, 1275 Meadow Crest Drive, South Lake Tahoe, California.



South Tahoe Public Utility District

General Manager
Richard H. Solbrig

Directors
Chris Cefalu
James R. Jones
Randy Vogelgesang
Kelly Sheehan
Duane Wallace

1275 Meadow Crest Drive • South Lake Tahoe • CA 96150-7401
Phone 530 544-6474 • Fax 530 541-0614 • www.stpud.us

May 9, 2016

Nancy Kerry
City Manager
City of South Lake Tahoe
1901 Airport Rd. Ste. 203
South Lake Tahoe, CA 96150

Subject: South Tahoe Public Utility District's 2015 Urban Water Management
Plan Notice

Dear Nancy:

The South Tahoe Public Utility District (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 public hearing. The District will conduct a public hearing for its 2015 UWMP on June 16, 2016, 2:00 p.m. at the District offices located at 1275 Meadow Crest Drive, South Lake Tahoe, California, 96150.

If you have any questions or comments regarding this process, please contact me at (530) 543-6251.

Sincerely,

Randy Curtis
Manager of Field Operations



South Tahoe Public Utility District

General Manager
Richard H. Solbrig

Directors
Chris Cefalu
James R. Jones
Randy Vogelgesang
Kelly Sheehan
Duane Wallace

1275 Meadow Crest Drive • South Lake Tahoe • CA 96150-7401
Phone 530 544-6474 • Fax 530 541-0614 • www.stpud.us

May 9, 2016

Roger Trout
Planning Director
El Dorado County Development Services
2850 Fairlane Court, Building "C"
Placerville, CA 95667

**Subject: South Tahoe Public Utility District's 2015 Urban Water Management
Plan Notice**

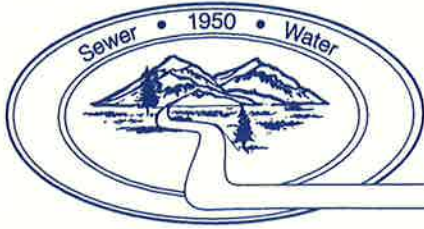
Dear Roger:

The South Tahoe Public Utility District (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 public hearing. The District will conduct a public hearing for its 2015 UWMP on June 16, 2016, 2:00 p.m. at the District offices located at 1275 Meadow Crest Drive, South Lake Tahoe, California, 96150.

If you have any questions or comments regarding this process, please contact me at (530) 543-6251.

Sincerely,

Randy Curtis
Manager of Field Operations



South Tahoe Public Utility District

General Manager
Richard H. Solbrig

Directors
Chris Cefalu
James R. Jones
Randy Vogelgesang
Kelly Sheehan
Duane Wallace

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Phone 530 544-6474 • Fax 530 541-0614 • www.stpud.us

May 9, 2016

Ken Payne
Executive Director
El Dorado Water Agency
4110B Business Drive
Cameron Park, CA 95682

Subject: South Tahoe Public Utility District's 2015 Urban Water Management
Plan Notice

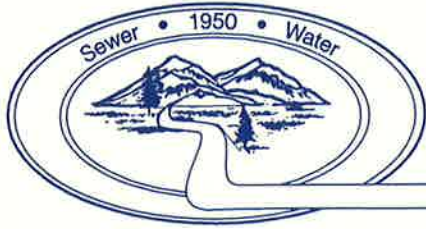
Dear Ken:

The South Tahoe Public Utility District (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 public hearing. The District will conduct a public hearing for its 2015 UWMP on June 16, 2016, 2:00 p.m. at the District offices located at 1275 Meadow Crest Drive, South Lake Tahoe, California, 96150.

If you have any questions or comments regarding this process, please contact me at (530) 543-6251.

Sincerely,

Randy Curtis
Manager of Field Operations



South Tahoe Public Utility District

General Manager
Richard H. Solbrig

Directors
Chris Cefalu
James R. Jones
Randy Vogelgesang
Kelly Sheehan
Duane Wallace

1275 Meadow Crest Drive • South Lake Tahoe • CA 96150-7401
Phone 530 544-6474 • Fax 530 541-0614 • www.stpud.us

May 9, 2016

Patty Kouyoumdjian
Executive Director
Lahontan Regional Water Quality Control Board
2501 Lake Tahoe Blvd.
South Lake Tahoe, CA 96150

**Subject: South Tahoe Public Utility District's 2015 Urban Water Management
Plan Notice**

Dear Patty:

The South Tahoe Public Utility District (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 public hearing. The District will conduct a public hearing for its 2015 UWMP on June 16, 2016, 2:00 p.m. at the District offices located at 1275 Meadow Crest Drive, South Lake Tahoe, California, 96150.

If you have any questions or comments regarding this process, please contact me at (530) 543-6251.

Sincerely,

Randy Curtis
Manager of Field Operations



South Tahoe Public Utility District

General Manager
Richard H. Solbrig

Directors
Chris Cefalu
James R. Jones
Randy Vogelgesang
Kelly Sheehan
Duane Wallace

1275 Meadow Crest Drive • South Lake Tahoe • CA 96150-7401
Phone 530 544-6474 • Fax 530 541-0614 • www.stpubd.us

May 9, 2016

Joanne Marchetta
Executive Director
Tahoe Regional Planning Agency
P. O. Box 5310
Stateline, NV 89449

Subject: South Tahoe Public Utility District's 2015 Urban Water Management
Plan Notice

Dear Joanne:

The South Tahoe Public Utility District (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 public hearing. The District will conduct a public hearing for its 2015 UWMP on June 16, 2016, 2:00 p.m. at the District offices located at 1275 Meadow Crest Drive, South Lake Tahoe, California, 96150.

If you have any questions or comments regarding this process, please contact me at (530) 543-6251.

Sincerely,

Randy Curtis
Manager of Field Operations

Appendix G
Board Adoption

1 Directors of the South Tahoe Public Utility District at a regular meeting held on the 16th
2 day of June, 2016, by the following vote:

3 AYES: JONES, Vogelgesang, Sheehan, Wallace

4 NOES: NONE

5 ABSENT: Cefalu

6

7

8



Randy Vogelgesang, Board President
South Tahoe Public Utility District

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ATTEST:

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Melonie Guttry, Clerk of the Board
South Tahoe Public Utility District

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ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

J. CROWLEY GROUP
WATER RESOURCES PLANNING AND POLICY