PREPARED FOR
TAHOE CITY PUBLIC UTILITY DISTRICT

2020
Urban Water Management Plan

Final // FEBRUARY 2022

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Tahoe City Public Utility District

2020 URBAN WATER MANAGEMENT PLAN

FINAL | February 2022

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Tahoe City Public Utility District

2020 URBAN WATER MANAGEMENT PLAN

CONTACT SHEET

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The Water supplier is a: **District**

The Water supplier is a: **Retailer**

Utility services provided by the water supplier include: **Water, Sewer**

Abbreviations

°F	degrees Fahrenheit
AB	Assembly Bill
AF	acre-feet
ADU	Accessory Dwelling Unit
AMI	advanced metering infrastructure
AMR	automatic meter reading
ASCWD	Alpine Springs County Water District
AWWA	American Water Works Association
bgs	below ground surface
BMP	best management practice
Carollo	Carollo Engineers, Inc.
CASGEM	California Statewide Groundwater Elevation Monitoring
CCR	California Code of Regulations
CCR	Consumer Confidence Report
CREAT	Climate Resilience Evaluation and Awareness Tool
CWC	California Water Code
DDW	Division of Drinking Water
DOF	California Department of Finance
DMM	demand management measure
DRA	drought risk assessment
DWR	California Department of Water Resources
EDWA	El Dorado Water Agency
EPA	United States Environmental Protection Agency
ET, ETo	Evapotranspiration
GHG	greenhouse gas
gpcd	gallons per capita per day
gpm	gallons per minute
GWMP	Groundwater Management Plan
kWh	kilowatt hours
LHMP	Local Hazard Mitigation Plan
MFR	multi-family residential
MG	million gallons
No.	Number
NTPUD	North Tahoe Public Utility District
OVPSD	Olympic Valley Public Service District
PCWA	Placer County Water Agency

PFAS	Per- and polyfluoroalkyl substances
RCP	Representative Concentration Pathway
RP	reference point
SB	Senate Bill
SFR	single-family residential
SGMA	Sustainable Groundwater Management Act
STPUD	South Tahoe Public Utility District
SWEP	Sierra Watershed Education Partnership
SWRCB	State Water Resources Control Board
TCPUD	Tahoe City Public Utility District
TDPUD	Truckee Donner Public Utility District
TRI	Truckee River Interceptor
TROA	Truckee River Operating Agreement
TRPA	Tahoe Regional Planning Agency
TTSA	Tahoe-Truckee Sanitation Agency
UWMP	Urban Water Management Plan
UWMPA	Urban Water Management Planning Act
WRP	Water Reclamation Plant
WSCP	Water Shortage Contingency Plan
WTP	Water Treatment Plant

Chapter 1

INTRODUCTION AND LAY DESCRIPTION

1.1 Lay Description

The Tahoe City Public Utility District (TCPUD) was founded in 1938 and provides water, wastewater collection, and recreational facilities and services. The boundaries of the TCPUD lie within both Placer and El Dorado Counties, extending from Emerald Bay to Dollar Hill, and along the Truckee River to the Nevada County line. The TCPUD service area encompasses more than 31 square miles.

The TCPUD serves seven public water systems and the Tahoe-Truckee Forest Tract with a total of 5,704 connections in year 2020. The TCPUD currently utilizes local groundwater as the main water supply source. The TCPUD extracts groundwater via 12 active wells and one spring source scattered throughout the water service area. The TCPUD also purchases water to serve the Tahoe-Truckee Forest Tract system. The TCPUD currently operates an interim water treatment plant (WTP) at Chambers Landing to provide water supply to the McKinney/Quail water service area during peak demand months.

In 2020, the average annual population was estimated to be 8,028. The population is anticipated to increase to 8,448 by the year 2040, based on limited opportunity for residential development within the TCPUD's service area and residential occupancy estimates.

The TCPUD customers within the Tahoe City Main, Rubicon, McKinney/Quail, Alpine Peaks, and Tahoe-Truckee Forest Tract systems are metered. The TCPUD acquired the Madden Creek, Tahoe Cedars, and Timberland water systems in January 2018. The Timberland water system is metered as of January 2021.

The total demand in 2020 was approximately 581 million gallons (MG). Residential demands, including single-family residential (SFR) and multi-family residential (MFR), account for 315 MG (54.3 percent) of the total demand, while commercial/institutional demands account for 47 MG (8.2 percent) and sales account for 28 MG (4.7 percent). The remaining balance is attributed to unclassified consumption for the unmetered systems of 174 MG (29.9 percent) and water loss of 17 MG (2.9 percent). Demands under normal conditions are anticipated to be 567 MG by the year 2040 with passive conservation. "Passive" savings are water savings from codes, standards, ordinances, or transportation and land use plans.

The per capita water demand was 193 gallons per capita per day (gpcd) in 2020. Although the TCPUD was able to meet the 2020 target of 236 gpcd, the year 2020 did not represent a typical year due to the impacts of the COVID-19 pandemic. Since the 2020 per capita demand of 193 gpcd was below the 2020 goal, adjustments for extraordinary events were not made.

Supply availability was reviewed under a single-dry year and a five-consecutive-year drought, in addition to a drought risk assessment (DRA) from 2021 through 2025. The TCPUD anticipates it can supply all its water demands through the planning horizon (2040) for all water year scenarios.

The TCPUD Water Conservation and Drought Response Standards Ordinance was also updated to address the latest requirements set forth by California Department of Water Resources (DWR) for drought planning, which now includes six supply shortage stages, response actions for demand reduction, supply augmentation, operational changes, and mandatory prohibitions to address shortage levels.

1.2 Background and Purpose

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

The purpose of the UWMP is to maintain efficient use of urban water supplies, continue to promote conservation programs and policies, ensure that sufficient water supplies are available for future beneficial use, and provide a mechanism for response during water drought conditions. This document, which was prepared in compliance with the CWC, and as set forth in the 2020 Urban Water Management Plan Guidebook for Urban Water Suppliers (March 2021) established by the Department of Water Resources (DWR), constitutes the TCPUD 2020 UWMP.

This 2020 UWMP was prepared in compliance with the UWMPA (CWC §10610 et seq.) and the Water Conservation Bill of 2009 (Senate Bill [SB] X7-7) by Carollo Engineers, Inc. (Carollo). Contact information for the TCPUD and Carollo is included in the Contact Sheet provided at the beginning of this document.

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

1.2.1 Previous Urban Water Management Plan

The TCPUD previously prepared an UWMP in 2015, which was approved and adopted on June 17, 2016. Following adoption, the 2015 UWMP was submitted to and formally approved by the DWR. The 2020 UWMP report serves as an update to the 2015 UWMP and pulls extensively from that report.

1.3 Urban Water Management Planning and the California Water Code

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

1.3.1 Urban Water Management Planning Act

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

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

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

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

- AB 1420: Requires implementation of DMMs/best management practices (BMP) and meeting the 20-by-2020 targets to qualify for water management grants or loans.
- AB 1420: Requires a plan to quantify and report on distribution system water loss.
- AB 1420: Provides for water use projections to display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans, when that information is available and applicable to an urban water supplier.
- AB 1465: Requires water suppliers to describe opportunities related to recycled water use and stormwater recapture to offset potable water use.
- Amendments SB 610 (Costa, 2001) and AB 901 (Daucher, 2001): Require counties and cities to consider information relating to the availability of water to supply new large developments by mandating the preparation of further water supply planning (Daucher) and Water Supply Assessments (Costa).
- SB 1087: Requires water suppliers to report SFR and MFR projected water use for lower income areas separately.
- Amendment SB 318 (Alpert, 2004): Requires the UWMP to describe the opportunities for development of desalinated water, including but not limited to, ocean water, brackish water, and groundwater, as long-term supply.
- AB 105 (Wiggins, 2004): Requires urban water suppliers to submit their UWMPs to the California State Library.
- SB X7-7: Requires development and use of new methodologies for reporting population growth estimates, base per capita use, and water conservation. An agency can choose from four methods to establish their water conservation targets.
- AB 2067: Requires water suppliers to provide narratives of water DMMs.
- SB 1036: Provides for an urban water supplier to include certain energy-related information, including, but not limited to, and estimate of the amount of energy used to extract or divert water supplies.
- AB 2409: Requires urban water suppliers to analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains separately from swimming pools and spas.

1.3.2 New Requirements to the Water Code since the 2015 UWMPs

The major new requirements to the CWC since 2015 UWMPs are summarized in Table 1-1.

Table 1-1 Applicable Changes to the Water Codes Since 2015 UWMPs

Topic	Summary
Five Consecutive Dry-Year Water Reliability Assessment	The Legislature modified the dry-year water reliability planning from a "multiyear" time period to a "drought lasting five consecutive water years" designation.
DRA	The DRA requires a Supplier to assess water supply reliability over a five-year period from 2021 to 2025 that examines water supplies, water uses, and the resulting water supply reliability under a reasonable prediction for five consecutive dry years.
Seismic Risk	Requires Suppliers to specifically address seismic risk to various water system facilities and to have a mitigation plan.
Energy Use	Requires Suppliers to include readily obtainable information on estimated amounts of energy for their water supply extraction, treatment, distribution, storage, conveyance, and other water uses.
Water Loss Reporting for Five Years	The Water Code added the requirement to include the past five years of water loss audit reports as part of this UWMP.
WSCP	New requirements are more prescriptive than previous versions.
Groundwater Supplies Coordination	Water Code now requires Suppliers' 2020 UWMPs to be consistent with Groundwater Sustainability Plans, in areas where those plans have been completed by Groundwater Sustainability Agencies.
Lay Description	Suppliers to include a lay description of the fundamental determinations of the UWMP, especially regarding water service reliability, challenges ahead, and strategies for managing reliability risks. This section of the UWMP could be viewed as a go-to synopsis for new staff, new governing members, customers, and the media, and it can ensure a consistent representation of the Supplier's detailed analysis.

1.3.3 Water Conservation Act of 2009 (SB X7-7) 3

Beginning in 2016, retail water suppliers are required to comply with the water conservation requirements in SB X7-7 to be eligible for State water grants or loans. Refer to Chapter 5 for detailed information on SB X7-7.

1.4 Report Organization

This UWMP contains ten chapters, followed by appendices that provide supporting documentation for the information presented in the report. The chapters are briefly described below:

- Chapter 1 – Introduction and Lay Description. This chapter presents a lay description and the purpose of this UWMP stressing the importance and extent of the water management planning efforts.
- Chapter 2 – Plan Preparation. This chapter provides information on the process for developing the UWMP as well as coordination efforts with appropriate local agencies

and discusses the measures used to solicit public participation during the development of the UWMP.

- Chapter 3 – System Description. This chapter presents a description of the water purveyor's service area and its characteristics including climate, population, and other demographic factors.
- Chapter 4 – Water Use Characterization. This chapter presents a description of the water purveyor's current and projected water uses within the service area in five-year increments.
- Chapter 5 – SB X7-7 Baselines, Targets, and 2020 Compliance. This chapter presents information on the water purveyor's compliance with the 2020 per-capita water conservation mandate. Demonstrate that the 2020 target adopted in the 2015 UWMP was met in 2020. This chapter provides analyses and calculations associated with the water conservation target pursuant to SB X7-7.
- Chapter 6 – Water Supply Characterization. This chapter presents a description of the water purveyor's current and projected potable and non-potable water supply sources including information on the usage of surface water, groundwater, imported water and an overview of usage of recycled water. This chapter includes information on the water purveyor's future considerations of a recycled water system.
- Chapter 7 – Water Service Reliability and Drought Risk Assessment. This chapter presents the reliability of the water purveyor's water system. This includes a discussion on future water reliability. In addition, there is an analysis of supply availability in a normal, single dry year and in five consecutive dry years. This chapter also includes the DRA.
- Chapter 8 – Water Shortage Contingency Plan. This chapter includes an urban water shortage contingency analysis that includes stages of action to be undertaken in the event of water supply shortages; prohibitions consumption reduction methods and penalties; actions to be taken during a catastrophic interruption of service; and a mechanism for measuring water use reduction.
- Chapter 9 – Demand Management Measures. This chapter communicates the water purveyor's efforts to promote conservation and to reduce demand. The chapter includes narratives on each DMM.
- Chapter 10 – Plan Adoption, Submittal, and Implementation. This chapter describes the steps taken to adopt, submit, and implement the UWMP and make it publicly available.

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Chapter 2

PLAN PREPARATION

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

2.1 Basis for Plan Preparation

CWC 10617 requires that urban water suppliers with 3,000 or more service connections or supplying 3,000 or more AF of water per year prepare an UWMP every five years.

> *10617 "Urban water supplier" means a supplier, either publicly, or privately owned, 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. An urban water supplier includes a supplier or contractor for water, regardless of the basis of right, which distributes or sells for ultimate resale to customers. This part applies only to water supplied from public water systems…*

2.1.1 Public Water Systems

> *California Health and Safety Code 116275 (h) "Public Water System" means a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year.*

To demonstrate the basis of reporting, the Public Water Systems services by the TCPUD are listed in Table 2-1. As listed in Table 2-1, the TCPUD served seven public water systems and Tahoe-Truckee Forest Tract with a total of 5,704 connections and a total of 581 MG in year 2020.

Submittal Table 2-1 Retail Only: Public Water Systems			
Public Water System Number	Public Water System Name	Number of Municipal Connections 2020	Volume of Water Supplied 2020 *
Add additional rows as needed			
3110010	Tahoe City Main	2,902	310
0910012	Rubicon	625	40
3110011	McKinney/Quail	559	48
3110044	Alpine Peaks	97	6
3110043	Madden Creek	183	37
3110013	Tahoe Cedars	1,181	122
3100029	Timberland	137	15
-	Tahoe-Truckee Forest Tract	20	2
	TOTAL	5,704	581
**** Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.*			
NOTES: Units of measure in this UWMP are million gallons (MG). Sources: Annual Reports to the Division of Drinking Water For Year Ending December 31, 2020, TCPUD Water Audit Estimates, and 2020 AWWA Water Audits.			

Additional information on each public water system that is managed by the TCPUD is provided in Section 3.1.

2.2 Individual Planning and Compliance

This UWMP reports solely on the TCPUD service area, as shown in Table 2.2. The TCPUD has notified and coordinated with appropriate regional agencies and constituents.

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

2.3 Calendar Year and Units of Measure

> *CWC 1608.20 (a) (1) Urban retail water suppliers…may determine the targets on a fiscal year or calendar year basis.*

The TCPUD is reporting on a calendar year basis and therefore, 2020 data includes the months of January to December 2020. Table 2-3 indicates the TCPUD type of reporting year, and the units of measure for reporting water volumes throughout the 2020 UWMP.

Submittal Table 2-3: Supplier Identification	
Type of Supplier (select one or both)	
☐	Supplier is a wholesaler
☑	Supplier is a retailer
Fiscal or Calendar Year (select one)	
☑	UWMP Tables are in calendar years
☐	UWMP Tables are in fiscal years
If using fiscal years provide month and date that the fiscal year begins (mm/dd)	
Units of measure used in UWMP * (select from drop down)	
Unit	MG
**** Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.*	
NOTES:	

2.4 Coordination and Outreach

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

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

2.4.1 Wholesale and Retail Coordination

Retail agencies that receive a water supply from one or more wholesalers are required to provide wholesalers with projected water demand from that source, in five-year increments for 20 years. The TCPUD does not purchase or receive potable water from a wholesaler. Therefore, Table 2-4 has been left blank.

Submittal 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 Water Code Section 10631.
Wholesale Water Supplier Name
Add additional rows as needed
NOTES:

2.4.2 Coordination with Other Agencies and the Community

> *10620 (d)(2) Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.*
>
> *10642. Each urban water supplier shall encourage the active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan…*

The TCPUD solicited participation from other agencies, organizations, and the community for the preparation of the 2020 UWMP.

2.4.3 Notice to Cities and Counties

CWC 10621 (b) requires that agencies notify cities and counties to which they serve water that the TCPUD's UWMP is being updated and reviewed.

> *10621(b) Every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days before the public hearing on the plan required by Section 10642, notify a city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan.*

The TCPUD provided formal written notification to the following agencies that the TCPUD's UWMP was being updated:

- North Tahoe Public Utility District (NTPUD)
- South Tahoe Public Utility District (STPUD)
- Placer County Water Agency (PCWA)

- Truckee Donner Public Utility District (TDPUD)
- Olympic Valley Public Service District (OVPSD)
- Alpine Springs County Water District (ASCWD)
- Placer County, Department of Public Works
- Placer County, Department of Environmental Health
- El Dorado County, Facilities Department
- El Dorado Water Agency (EDWA)

In accordance with the UWMPA, this notification was provided at least 60 days prior to the public hearing of the plan. Electronic copies of the final UWMP will be provided to these agencies no later than 30 days after its submission to DWR. Appendix A contains copies of outreach documents.

Notices were published informing interested parties that the draft 2020 UWMP was available for review. Pursuant to California Code Section 6066, a notification of the time and place of the public hearing was published in the local newspaper on January 28, 2022, and February 4, 2022. A notice was also posted on the TCPUD's website (www.tcpud.org). The notice stated that a public review period was scheduled through February 18, 2022. Copies of these notifications are included in Appendix A.

The Final Draft 2020 UWMP was presented on February 18, 2022, for adoption by resolution following a public hearing. This hearing provided an opportunity for the TCPUD's customers, residents, and employees to learn and ask questions about the current and future water supply of the TCPUD.

Chapter 3

SYSTEM DESCRIPTION

The UWMPA requires that the UWMP include a thorough description of the water system, service area, and various aspects of the area served including climate, population, and other demographic factors.

> *10631. (a) Describe the service area of the supplier, including current and projected population, climate, and other demographic factors affecting the supplier's water management planning. The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available.*

3.1 General Description

Established under the State of California's Public Utility District Act, the TCPUD was founded in 1938 and provides water, wastewater collection, and recreational facilities and services. The boundaries of the TCPUD lie within both Placer and El Dorado Counties, extending from Emerald Bay to Dollar Hill, and along the Truckee River to the Nevada County line. The TCPUD service area encompasses more than 31 square miles.

The TCPUD water service area currently consists of the following eight sub-regional water systems:

- Tahoe City Main
- Rubicon
- McKinney/Quail
- Alpine Peaks
- Madden Creek
- Tahoe Cedars
- Timberland
- Tahoe-Truckee Forest Tract

The TCPUD customers within the Tahoe City Main, Rubicon, McKinney/Quail, Alpine Peaks, and Tahoe-Truckee Forest Tract systems are metered.

The TCPUD acquired the Madden Creek, Tahoe Cedars, and Timberland water systems in January 2018. The Timberland water system is metered as of January 2021. Refer to Section 6.8 for details on capital improvement plans to meter the Madden Creek and Tahoe Cedars systems.

Figure 3.1 shows the TCPUD service area boundary and TCPUD water service areas (Source: TCPUD).

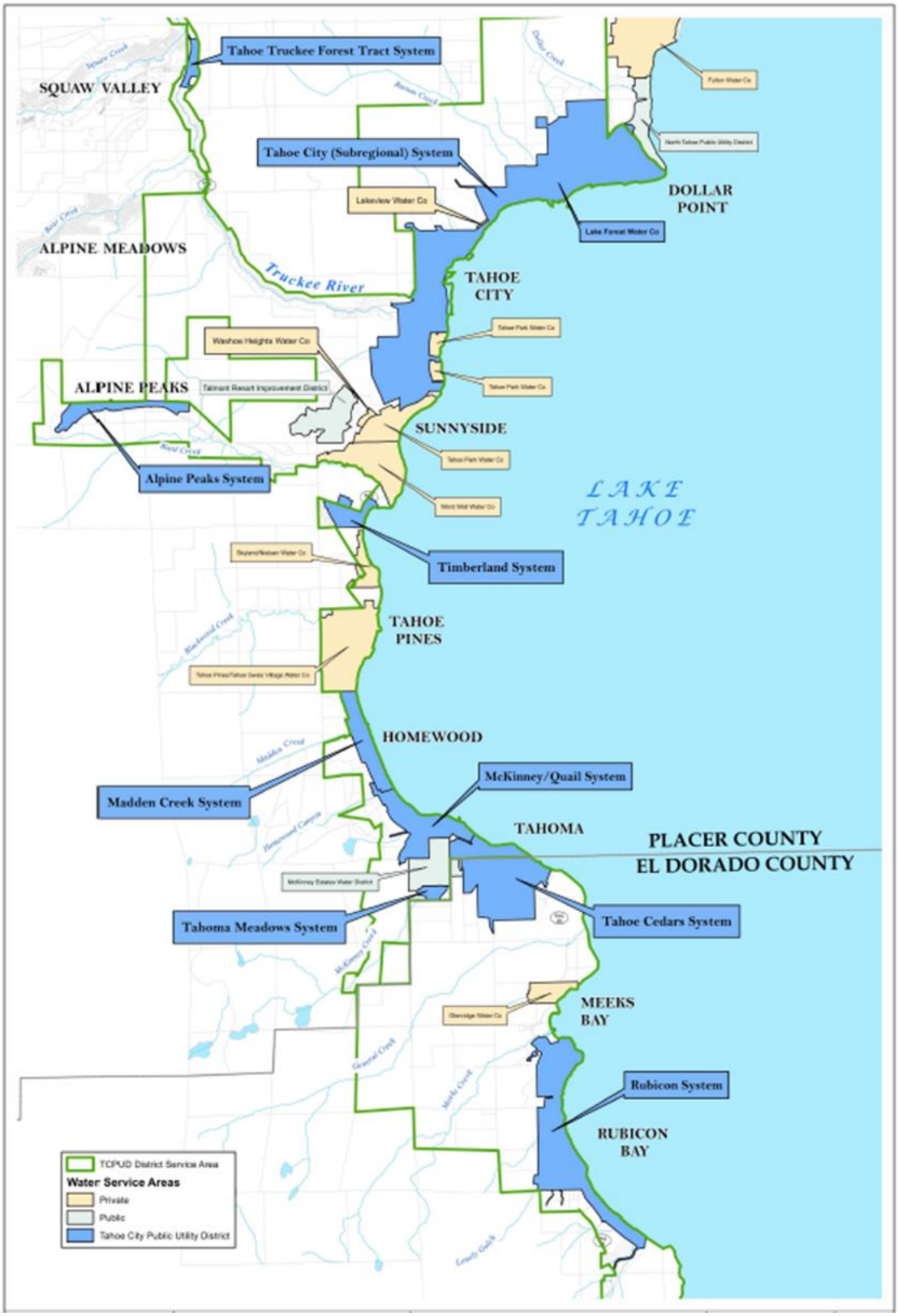

Figure 3.1 Water Service Area

3.2 Service Area Climate

> *10631(a). A plan shall… Describe the service area of the supplier, including … climate…*
>
> *10630. It is the intention of the Legislature, in enacting this part, to permit levels of water management planning… while accounting for impacts of climate change.*

The TCPUD's service area climate is characterized by short warm dry summers and long cold snowy winters. Average monthly evapotranspiration (ETo) rates, rainfall, and temperature are summarized in Table 3-0A.

Table 3-0A: Climate Characteristics

Month	Standard Monthly Average ETo[1] (inches)	Monthly Average Rainfall[2] (inches)	Monthly Average Snowfall[2] (inches)	Monthly Average Temperature[2] degrees Fahrenheit (°F)	
				Minimum	Maximum
January	0.00	5.97	45.9	19.1	38.6
February	0.00	5.29	36.5	19.9	40.3
March	0.00	4.12	35.2	22.8	44.0
April	0.00	2.14	15.9	26.9	50.4
May	4.27	1.20	3.7	32.8	59.6
June	5.23	0.65	0.2	38.6	68.7
July	5.98	0.26	0.0	44.4	77.9
August	5.35	0.30	0.0	43.7	77.2
September	3.16	0.59	0.3	39.0	69.8
October	1.57	1.82	2.4	32.3	58.8
November	0.00	3.57	15.5	25.8	46.9
December	0.00	5.55	35.2	20.8	40.3
Annual	**25.56**	**31.46**	**190.7**	**30.5**	**56.0**

NOTES:

(1) Source: Western Regional Climate Center Tahoe. Represents monthly average from 1914 to 2005.

(2) Source: Western Regional Climate Center Tahoe (048758). Represents monthly average from September 13, 1993 to June 10, 2016.

As shown in Table 3.01A, the TCPUD service area's average monthly temperature ranges from about 30.5 to 56.0 degrees Fahrenheit (°F). Average annual values of ETo and precipitation are 25.56 inches and 31.46 inches, respectively. The average monthly precipitation ranges from 0.26 inches to 5.97 inches with most of the precipitation typically occurring from November through March. The average monthly snowfall ranges from 0.0 inches to 45.9 inches with most of the snowfall typically occurring from November through April.

3.3 Service Area Population and Demographics

> *10631(a). Describe the service area of the supplier, including current and projected population... The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available.*

This section summarizes current and projected population trends in the TCPUD service area. Population projections are essential to the planning process and form the basis for most planning decisions, yet projecting future growth is far from an exact science given the complex set of variables that can affect the rate of growth. Typically, projections are developed by taking past patterns and combining them with assumptions regarding the future to obtain an estimate of future growth rates. These projections serve to provide the TCPUD insight on the type and quantity of future growth as well as guidance regarding future planning activities; therefore, such planning activities can only be as effective as the ability to anticipate population growth.

3.3.1 Service Area Population

Due to strict land use controls imposed by the Tahoe Regional Planning Agency (TRPA), the bi-state (California/Nevada) regional environmental planning agency for the Lake Tahoe Region, there is limited opportunity for residential development within the TCPUD's service area.

Additionally, TCPUD's population is composed of full-time and temporary residents. The temporary population includes recreational visitors and second homeowners and is assumed to primarily occur during the weekend and holidays.

For these reasons, the TCPUD has utilized a variation of the persons-per-connection population estimate methodology to determine the population in the 2010, 2015, and 2020 UWMPs. TCPUD calculated the 2020 population based on residential occupancy from 2018-2020 as shown in Table 3.0B. The number of occupied units (accounts with monthly demand greater than 1,000 gallons) for the metered systems (Tahoe City Main, Rubicon, McKinney/Quail, Alpine Peaks, and Tahoe-Truckee Forest Tract) plus the estimated number of occupied units for the unmetered systems (Madden Creek, Tahoe Cedars, and Timberland) was multiplied by the average residential occupancy of 2.1 persons per (occupied) unit based on Placer County 2020 Census Tracts 201.04, 221, 222, 223, and El Dorado County 2020 Census Tracts 320.01, 320.02.

Table 3-0B: Population Based on Residential Occupancy

Month	Metered Systems			Unmetered Systems	Residential Population[3]
	Average No. of Unoccupied Units[1] (Demand < 1,000 gallons)	Average No. of Occupied Units[1] (Demand > 1,000 gallons)	Percent of Units Occupied	Estimated Average No. of Occupied Units[2]	
January	946	3,016	76%	1,121	8,688
February	1,534	2,429	61%	903	6,997
March	1,675	2,292	58%	851	6,600
April	1,900	2,063	52%	767	5,943
May	1,475	2,488	63%	925	7,167
June	766	3,196	81%	1,188	9,207
July	363	3,599	91%	1,338	10,368
August	404	3,559	90%	1,323	10,252
September	553	3,410	86%	1,267	9,823
October	965	2,998	76%	1,114	8,636
November	1,562	2,402	61%	893	6,919
December	1,975	1,990	50%	739	5,732
Average Total Population (2018-2020)					**8,028**

NOTES: No. = Number.

(1) Based on District provided data for January 2018 through December 2020 for Tahoe City Main, Rubicon, McKinney/Quail, Alpine Peaks, and Tahoe-Truckee Forest Tract systems.

(2) Based on average total of residential connections for Madden Creek, Tahoe Cedars, and Timberland water systems for 2018 through 2020 (source: 2018-2020 Annual Reports to the Division of Drinking Water) multiplied by percent of units occupied for metered systems.

(3) Average residential occupancy is 2.1 persons per (occupied) unit based on Placer County 2020 Census Tracts 201.04, 221, 222, 223, and El Dorado County 2020 Census Tracts 320.01, 320.02.

The average total population (2018-2020) based on residential occupancy is assumed to be the 2020 population as shown in Table 3.3. The TCPUD reports approximately 10 new residential service connections per year. Assuming 2.1 persons per (occupied) unit, this translates to an increase in population of 105 persons every five years. The projected population for the TCPUD based on residential occupancy is also shown in Table 3-1.

Submittal Table 3-1 Retail: Population - Current and Projected						
Population Served	2020	2025	2030	2035	2040	2045*(opt)*
	8,028	8,133	8,238	8,343	8,448	
NOTES: Assumes 10 new service connections per year and average residential occupancy of 2.1 persons per (occupied) unit based on Placer County 2020 Census Tracts 201.04, 221, 222, 223, and El Dorado County 2020 Census Tracts 320.01, 320.02.						

3.3.2 Other Social, Economic, and Demographic

> *10631. Describe the service area of the supplier, including... other social, economic and demographic factors affecting the supplier's water management planning.*

As discussed previously, the TCPUD's population is composed of both full-time residents and temporary residents. In March 2020, an executive order from California State Governor Gavin Newsom directed all Californians to stay home for non-essential needs to limit the spread of coronavirus (COVID-19). As a result, population and use patterns changed within the service area and the long-term water demand impacts are unknown.

3.4 Land Uses within Service Area

> *10631(a). The description shall include the current and projected land uses within the existing or anticipated service area affecting the supplier's water management planning. Urban water suppliers shall coordinate with local or regional land use authorities to determine the most appropriate land use information, including, where appropriate, land use information obtained from local or regional land use authorities...*

TRPA's Regional Plan was adopted in December 2012. The Land Use Element sets forth the fundamental land use philosophies of the Regional Plan, including the direction of development to the most suitable locations within the region, maintenance of the environmental, economic, social, and physical well-being of the region, and coordination of the Regional Plan with local, state, and federal requirements. Refer to Appendix B for the Regional Plan Land Use Map.

3.5 Climate Change

Climate change mitigation and adaptation efforts are being implemented as part of the 2020 UWMP Guidebook update. Projected climate change trends for California include increasing temperature and increasing precipitation as rainfall rather than snow. Water suppliers are now having to assess local climate challenges and plan for vulnerabilities within their systems. As these risks are identified, methods of adaption and mitigation can be employed to increase sustainability of water resources.

In the past decade, there has been a significant increase in tools and models to help identify potential impacts of climate change. The various resources differ in the information available in each service area, scenario assumptions, and parameters potentially impacted by climate

change. The following tools were evaluated for this UWMP and are described in further detail in the sections below:

- Climate Resilience Evaluation and Awareness Tool (CREAT)
- Cal-Adapt Extended Drought Scenarios Tool
- Cal-Adapt Wildfire Tool

3.5.1 EPA Climate Resilience Evaluation and Awareness Tool

The United States Environmental Protection Agency (EPA) created an online resource called CREAT to assist water agencies in preparing for potential future impacts on their systems caused by climate change. This tool utilizes model simulation to estimate changes in temperature, precipitation, storms, extreme heat, and sea level rise. For the purposes of this UWMP, the Cal-Adapt tool was used, which is consistent with the tool presented by DWR.

3.5.2 Cal-Adapt Extended Drought Scenarios Tools

Cal-Adapt is an online resource created by the State of California's scientific and research community to provide visualization tools and high-quality data regarding climate change at a local level. This resource allows the user to explore charts, maps, data, and projected climate variables for the State of California, and is a key recommendation of the 2009 California Climate Adaptation Strategy and the California DWR. All projections generated include two possible climate outcomes; one scenario where greenhouse gas (GHG) emissions peak near year 2040 and decline beyond 2040 (medium, Representative Concentration Pathway [RCP] 4.5), and another in which GHG emissions continue to rise throughout the 21st century (high, RCP 8.5). The tool allows the user to search by watershed, grid, counties, census tracts, and incorporated and census designated places. Thus, this tool was used to evaluate the impacts of climate change within the TCPUD's service area using the medium, RCP 4.5, and high, RCP 8.5, GHG emission scenarios.

The Extended Drought tool was used to evaluate early- and late-century variable climate impacts for the Prosser Creek-Truckee River watershed over a 20-year drought including five years prior and four years following. This two-decade extended drought period is often referred to as a "mega-drought." The results, which include minimum and maximum temperature, precipitation, ETo, and runoff, are summarized in Table 3-2.

Table 3-2: Extended Drought Scenario Projections

Parameter	Observed Historical (1961 - 1990)	Early-Century (2023 - 2042)	Late-Century (2051 - 2070)
Maximum Temperature (°F)	55.4	60.2	64.1
Minimum Temperature (°F)	23.9	27.5	31.2
Precipitation (inch)	43.2	36.5	36.5
Evapotranspiration (inch)	20.8	20.2	20.9
Runoff (inch)	9.4	6.0	5.6
Snow Water Equivalent (inch)	2,603.0	1,161.0	504.2

NOTES:
(1) Retrieved using Cal-Adapt Extended Drought tool.

The projected increase in maximum temperature from historical years to late-century is 8.7°F (15.7 percent), whereas the projected increase in minimum temperature is 7.3°F (30.5 percent). Precipitation is projected to decrease by 6.7 inches by late-century (15.5 percent) and ETo is projected to increase by 0.1 inches (0.5 percent). Runoff is projected to decrease by 3.8 inches (40.4 percent) and snow water equivalent by 2,099 inches (80.6 percent).

3.5.3 Cal-Adapt Wildfire

The Cal-Adapt Wildfire tool utilizes four models identified by the California Climate Action Team as priority models contributing to the 2018 California Fourth Climate Change Assessment. The models listed below describe the scenarios used in area burned wildfire projections.

- Warm/dry scenario (HadGEM2-ES)
- Cooler/wetter scenario (CNRM-CM5)
- Average scenario (CanESM2)
- A scenario that is unlike the first three models, the "complement" scenario (MIROC5)

The model projections generated include the same two possible climate outcomes: RCP 4.5 and RCP 8.5. Time periods for the wildfire analysis include historical (1961-1990), mid-century (2035 2064), and end of the century (2051-2070). The population growth scenario for the TCPUD service area was identified as central, or median. Summary statistics of all four priority models under medium and high RCP conditions for the Prosser Creek-Truckee River watershed are below in Table 3-3.

Table 3-3: Summary of Projected Wildfire Area Burned

Parameter	Observed Historical (1961 - 1990)	Mid-Century (2035 - 2064)	End of the Century (2051 - 2070)
RCP 4.5 Conditions			
Minimum Area Burned (hectares)	81.0	61.0	81.0
Average Area Burned (hectares)	347.5	420.5	505.1
Maximum Area Burned (hectares)	790.0	1,238.0	1,491.0
RCP 8.5 Conditions			
Minimum Area Burned (hectares)	111.0	143.0	81.0
Average Area Burned (hectares)	344.9	485.3	851.6
Maximum Area Burned (hectares)	728.0	2,344.0	9,194.0

NOTES:
(1) Retrieved using Cal-Adapt Wildfire tool.

Based on these statistics, the probability of wildfires in the Prosser Creek-Truckee River watershed is anticipated to be fairly steady, while the average and maximum areas burned are anticipated to increase under both the RCP 4.5 and RCP 8.5 conditions.

Chapter 4

WATER USE CHARACTERIZATION

The UWMPA requires that the UWMP identify the quantity of water supplied to the agency's customers including a breakdown by user classification. This section describes the water system demands and water demand projections.

4.1 Non-Potable Versus Potable Water Use

This chapter covers potable and raw water demand. Recycled water is addressed in Chapter 6. The TCPUD does not have any current or planned recycled water uses.

4.2 Past, Current, and Projected Water Use by Sector

> *10631(d). (1) For an urban retail water supplier, quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, based upon information developed pursuant to subdivision (a), identifying the uses among water use sectors, including, but not necessarily limited to, all of the following…*
>
> *(2). The water use projections shall be in the same five-year increments described in subdivision (a).*
>
> *(4)(A) Water use projections, where available, shall display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans identified by the urban water supplier, as applicable to the service area.*
>
> *(B) To the extent that an urban water supplier reports the information described in subparagraph (A), an urban water supplier shall do both of the following: (i) Provide citations of the various codes, standards, ordinances, or transportation and land use plans utilized in making the projections. (ii) Indicate the extent that the water use projections consider savings from codes, standards, ordinances, or transportation and land use plans. Water use projections that do not account for these water savings shall be noted of that fact.*

Water demands served by the TCPUD are primarily residential, including SFR and MFR, and commercial/institutional. There is no significant industrial, landscape, or agricultural irrigation within the TCPUD's service area. The TCPUD also supplies supplemental water to the NTPUD.

The following water use sectors and associated metered deliveries, as shown in Table 4-0, were reported in the 2015 UWMP.

Table 4-0: 2015 Water Deliveries	
Use Type	Metered Volume
Residential, including SFR and MFR	220
Commercial	53
Sales/Transfers/Exchanges to other Suppliers (NTPUD)	23
Losses	38
Total	334
NOTES: Units of measure in this UWMP are MG.	

The actual demands for potable and non-potable water are presented in Table 4-1 for the 2020 calendar year.

Submittal Table 4-1 Retail: Demands for Potable and Non-Potable[1] Water - Actual			
Use Type	2020 Actual		
Drop down list May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool	Additional Description (as needed)	Level of Treatment When Delivered Drop down list	Volume[2]
Add additional rows as needed			
Single Family		Drinking Water	229
Multi-Family		Drinking Water	87
Commercial	Includes Institutional	Drinking Water	47
Sales/Transfers/Exchanges to other Suppliers	NTPUD	Drinking Water	28
Losses	See Note 1	Drinking Water	17
Other	Unclassified (See Note 2)	Drinking Water	174
		TOTAL	581
[1] Recycled water demands are NOT reported in this table. Recycled water demands are reported in Table 6-4. *[2] Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*			
NOTES: Units of measure in this UWMP are million gallons (MG). Sources: 2020 Annual Reports to the Division of Drinking Water For Year Ending December 31, 2020, TCPUD Water Audit Estimates, and 2020 AWWA Water Audits. (1) Total losses of metered systems (Tahoe City Main, Rubicon, McKinney/Quail, Alpine Peaks, and Tahoe-Truckee Forest Tract). (2) Unclassified volume is total annual production for unmetered systems (Madden Creek, Tahoe Cedars, and Timberland).			

Table 4-2 contains the projected potable and raw water demands from 2025 through 2040. The demand projections are based on the following assumptions for each use type.

- Single-Family and Multi-Family Residential: Assumed to increase at the same rate as the projected population (Table 3-1).
- Commercial and Institutional: Assumed to remain at the 2020 water use through 2040 (assumed that the commercial/institutional land uses are built out within the TCPUD service area).
- Sales/Transfers/Exchanges to other Suppliers (NTPUD): Assumed to increase from 26 MG in 2025 to 30 MG in 2040.
- Losses: Assumed to remain at the 2020 water use through 2040. Refer to Section 9.5 for the TCPUD's programs to assess and manage distribution system real loss.
- Other Unclassified (total annual production for unmetered systems [Madden Creek, Tahoe Cedars, and Timberland]): Assumed to reduce by 20 percent (due to metering and implementation of conservation pricing) by 2030 and then increase at the same rate as the projected population (Table 3-1).

Submittal Table 4-2 Retail: Use for Potable and Non-Potable[1] Water - Projected

Use Type	Additional Description (as needed)	Projected Water Use[2] *Report To the Extent that Records are Available*				
Drop down list May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool		2025	2030	2035	2040	2045 (opt)
Add additional rows as needed						
Single Family		230	232	235	238	
Multi-Family		88	89	90	91	
Commercial	Includes Institutional	47	47	47	47	
Sales/Transfers/Exchanges to other Suppliers	NTPUD	26	27	29	30	
Losses		17	17	17	17	
Other	Unclassified (See Note 1)	157	139	141	143	
	TOTAL	564	552	559	567	0

[1] *Recycled water demands are NOT reported in this table. Recycled water demands are reported in Table 6-4. Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.* [2]

NOTES: Units of measure in this UWMP are million gallons (MG). (1) Unclassified volume is total annual production for unmetered systems (Madden Creek, Tahoe Cedars, and Timberland).

The customer sector water deliveries in Table 4-2 are only general estimates of projected use and may vary significantly based on future development and water conservation measures taken by each customer sector. Ultimately, the implementation, magnitude, and type of future development will determine the distribution of water use per customer sector.

The TCPUD total water demands for potable and raw water, and recycled water demand, based on the figures presented in Table 4-1, Table 4-2, and Table 6-4, are summarized in Table 4-3. The TCPUD does not have any current or planned recycled water uses.

Submittal Table 4-3 Retail: Total Water Use (Potable and Non-Potable)

Submittal Table 4-3 Retail: Total Water Use (Potable and Non-Potable)						
	2020	2025	2030	2035	2040	2045 (opt)
Potable Water, Raw, Other Non-potable *From Tables 4-1R and 4-2 R*	581	564	552	559	567	0
Recycled Water Demand[1] *From Table 6-4*	0	0	0	0	0	0
Optional Deduction of Recycled Water Put Into Long-Term Storage[2]	0	0	0	0	0	0
TOTAL WATER USE	581	564	552	559	567	0
[1] Recycled water demand fields will be blank until Table 6-4 is complete *[2] Long term storage means water placed into groundwater or surface storage that is not removed from storage in the same year. Supplier **may** deduct recycled water placed in long-term storage from their reported demand. This value is manually entered into Table 4-3.*						
NOTES: Units of measure in this UWMP are million gallons (MG).						

4.3 Distribution System Water Losses

> *10631(e)(1) Quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, identifying the uses among water use sectors, including, but not necessarily limited to, all of the following uses:*
>
> *(J) Distribution system water loss.....*
>
> *10631(d)(3)(A) The distribution system water loss shall be quantified for each of the five years preceding the plan update, in accordance with rules adopted pursuant to Section 10608.34*

Distribution system water losses ("real" losses) are the physical water losses from the water distribution system and the supplier's storage facilities, up to the point of customer consumption.

The TCPUD's distribution system losses for the four metered public water systems (Tahoe City Main, Rubicon, McKinney/Quail, and Alpine Peaks) were quantified using the AWWA Method Guidance "Water Resources Water Audit Manual." The total distribution system water loss for the 2020 calendar year for the four metered public water systems plus the Tahoe-Truckee Forest Tract system is reported in Table 4-4. The AWWA water audits for the four metered public water systems are provided in Appendix C. The state standard was met for water loss audit reporting in 2020.

Submittal Table 4-4 Retail: Last Five Years of Water Loss Audit Reporting	
Reporting Period Start Date (mm/yyyy)	Volume of Water Loss [1,2]
01/2016	
01/2017	
01/2018	
01/2019	
01/2020	17
[1] Taken from the field "Water Losses" (a combination of apparent losses and real losses) from the AWWA worksheet. *[2] **Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*	
NOTES: Units of measure in this UWMP are million gallons (MG). Sources: TCPUD Water Audit Estimates and 2020 AWWA Water Audits.	

The TCPUD prepared a draft AWWA water audit for the combined four metered public water systems (Tahoe City Main, Rubicon, McKinney/Quail, and Alpine Peaks) for the 2016 calendar year. The 2016 draft combined water audit report was not validated or reported. The TCPUD did not prepare AWWA water audits for the four metered public water systems (Tahoe City Main, Rubicon, McKinney/Quail, and Alpine Peaks) for the 2017 to 2019 calendar years. The DWR waivers for the 2017 to 2019 water audit reports are provided in Appendix C. Therefore, the water loss audit reporting in Table 4-4 has been left blank for 2016 to 2019 calendar years.

4.4 Estimating Future Water Savings

"Passive" savings are water savings from codes, standards, ordinances, or transportation and land use plans. As shown in Table 4-5, future water savings are not included in the total water use projections (Table 4-2).

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

4.5 Water Use for Lower Income Households

The UWMPA requires that the UWMP identify planned low-income housing developments within the agency's service area and develop demand projections for those units. A lower income household is defined as one with an income below 80 percent of area median income, adjusted for family size.

> *10631.1(a). The water use projections required by Section 10631 shall include projected water use for single-family and multifamily residential housing needed for lower income households, as defined in Section 50079.5 of the Health and Safety Code, as identified in the housing element of any city, county, or city and county in the service area of the supplier.*

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

It should also be noted, State legislation in 2017 made Accessory Dwelling Units (ADU) legal in all California cities. Homeowners can decide to build either a detached ADU in their backyard, an attached ADU that is part of a home addition, or an ADU conversion. Although the State has determined ADU's contribute no additional stress on utilities, the addition of another dwelling unit, another family occupant, on a single-family property does impact water usage.

4.6 Climate Change Considerations

As temperature rises, water demands from various types of users will likely increase. Daily heat patterns, such as the duration of daytime heat prior to nighttime cooling, will change the diurnal demand patterns and peaking factors for activities, such as landscaping and other outdoor water use features (e.g., pools, fountains, open water bodies), due to increased ET values. The altered climate patterns in California creating hotter days and longer heat waves will increase customer water use and evaporative water losses. Extended drought periods are expected to become both more frequent, and more severe, which could lead to reduced rainfall and snowpack.

The combination of a long-term reduction in water supply availability with a long-term increase in water demand and higher summer demand peaks will increase pressure on the TCPUD to meet demands. Technology and devices to increase monitoring through the distribution system will help the TCPUD prepare for, and respond to, changes in supply and demand due to climate change. Creating redundancy through backup systems, the addition of pipes to connect dead ends or areas only served by one main line or water source, will help the TCPUD achieve efficiencies required in the face of climate change considerations. Getting localized, region specific data on climate change forecasts and impacts would also help the TCPUD for planning purposes.

The TCPUD's service area is predicted to have declining precipitation and increasing temperatures. The increasing temperatures may change demand levels and patterns. Continued reduction in per capita demand with water conservation will become more challenging as BMP saturation levels climb. It can be concluded that climate change will likely put more strain on the TCPUD's ability to meet demands long-term. If per capita water demand were to increase with temperature, or the population were to increase at a higher rate, or groundwater or surface water supplies were to drop due to extended droughts, or water availability were to be impacted due to wildfires, the effects could have serious and devastating consequences.

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Chapter 5

SB X7-7 BASELINES, TARGETS, AND 2020 COMPLIANCE

The UWMPA requires that the UWMP identify the baseline water demand and 2020 urban water use target for the TCPUD. The 2020 target is necessary to judge compliance with the 2020 use reductions set forth in the Water Conservation Bill of 2009 (SB X7-7).

The purpose of this section is to determine whether the TCPUD has met the 20 percent conservation mandate. All SB X7-7 forms are included in Appendix D.

5.1 Baselines and Targets

A supplier may update the baseline and target water use if there were changes to their distribution area. The TCPUD's distribution area has changed since 2015. Therefore, the baseline and target gpcd values were recalculated to determine compliance with the 2020 target.

A 10-year baseline and a 5-year baseline were calculated to establish the minimum criteria for the TCPUD water use reduction targets. A summary of the 2008 total and recycled water deliveries, 10-year baseline range (1998 to 2007), and 5-year baseline range (2003 to 2007) is included in Table 1 of the SB X7-7 Verification Forms (Appendix D).

5.2 Service Area Population

> *10608.20. (e) An urban retail water supplier shall include in its urban water management plan due in 2010… the baseline per capita water use… along with the bases for determining those estimates, including references to supporting data.*
>
> *(f) When calculating per capita values for the purposes of this chapter, an urban retail water supplier shall determine population using federal, state, and local population reports and projections.*
>
> *10644. (a)(2) The plan… shall include any standardized forms, tables or displays specified by the department.*

The methodology used for population estimates is shown in Table 2 of the SB X7-7 Verification and Compliance Forms (Appendix D). The TCPUD has utilized a variation of the persons-per-connection population estimate methodology to determine the population in the 2010, 2015, and 2020 UWMPs. Refer to Section 3.3.1 for additional details.

Service area population is reported for each year in the baseline periods in Table 3 of the SB X7-7 Verification Form (Appendix D). Service area population is reported for 2020, the compliance year, in Table 3 of the SB X7-7 Compliance Form (Appendix D).

5.3 Gross Water Use

> *10608.12 (g) "Gross Water Use" means the total volume of water, whether treated or untreated, entering the distribution system of an urban retail water supplier, excluding all of the following:*
> *(1) Recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier*
>
> *(2) The net volume of water that the urban retail water supplier places into long term storage*
>
> *(3) The volume of water the urban retail water supplier conveys for use by another urban water supplier*
>
> *(4) The volume of water delivered for agricultural use, except as otherwise provided in subdivision (f) of Section 10608.24.*

"Gross Water Use" is the total volume of water, whether treated or untreated, entering the distribution system of an urban retail water supplier with certain acceptable exclusions. Gross water use is reported for each year in the baseline periods as well as 2020, the compliance year, in Table 4 of the SB X7-7 Verification and Compliance Forms (Appendix D).

5.4 Baseline Daily Per Capita Water Use

The daily per capita water use, expressed in gpcd, is the total water use within the service area divided by the population. The baseline daily per capita water use in each of the baseline years is calculated in Table 5 of the SB X7-7 Verification Form (Appendix D) by dividing annual gross water use by annual service area population. The average baseline daily per capita water use is summarized in Table 6 of the SB X7-7 Verification Form (Appendix D) for the 10-year baseline and 5-year baseline. The average baseline daily per capita water use is summarized in Table 5 of the SB X7-7 Compliance Form (Appendix D) for the 2020 compliance year.

5.5 Baselines and Targets Summary

As mentioned above, a supplier may update the baseline and target water use if there were changes to their distribution area. The TCPUD's distribution area has changed since 2015. Therefore, the baseline and target gpcd values were recalculated to determine compliance with the 2020 target.

The 2020 target was determined using Method 1 (80 percent of 10-year baseline gpcd). Based on the 10-year baseline of 294 gpcd, the TCPUD water use target for 2020 is 236 gpcd. In order to meet the confirmation criteria, the 2020 target must fall below 95 percent of the 5-year baseline, which for the TCPUD is 289 gpcd. According to the DWR guidelines, the 2020 target is valid since it is less than the maximum target confirmation criteria of 275 gpcd.

A summary of the various baselines and the confirmed 2020 target are summarized in Table 5-1. Refer to Table 7 and Table 7-F of the SB X7-7 Verification Form (Appendix D) for more information on the calculation method and a summary of the targets.

Submittal Table 5-1 Baselines and Targets Summary From SB X7-7 Verification Form *Retail Supplier or Regional Alliance Only*				
Baseline Period	Start Year *	End Year *	Average Baseline GPCD*	Confirmed 2020 Target*
10-15 year	*1998*	*2007*	*294*	*236*
5 Year	*2003*	*2007*	*289*	
**All cells in this table should be populated manually from the supplier's SBX7-7 Verification Form and reported in Gallons per Capita per Day (GPCD)*				
NOTES:				

5.6 2020 Compliance Daily Per Capita Water Use

> *10608.12(e) "Compliance daily per-capita water use" means the gross water use during the final year of the reporting period...*
>
> *10608.20 (e) An urban retail water supplier shall include in its urban water management plan due in 2010 . . . compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.*

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

Submittal Table 5-2: 2020 Compliance From SB X7-7 2020 Compliance Form *Retail Supplier or Regional Alliance Only*				
2020 GPCD				
Actual 2020 GPCD*	2020 TOTAL Adjustments*	Adjusted 2020 GPCD* *(Adjusted if applicable)*	2020 Confirmed Target GPCD*	Did Supplier Achieve Targeted Reduction for 2020? Y/N
193	*0*	*193*	*236*	*YES*
**All cells in this table should be populated manually from the supplier's SBX7-7 2020 Compliance Form and reported in Gallons per Capita per Day (GPCD)*				
NOTES:				

The TCPUD met the 2020 target (236 gpcd) in the year 2020 (193 gpcd). If the TCPUD can maintain water consumption rates, it will maintain conservation goals. However, if consumption rates begin to rise, the TCPUD must implement additional conservation measures. In all of its conservation programs, the TCPUD will avoid placing a disproportionate burden on any customer sector.

Although the TCPUD was able to meet the 2020 target, the year 2020 did not represent a typical year due to the impacts of the COVID-19 pandemic. Since the 2020 per capita demand of 193 gpcd was below the 2020 goal, adjustments for extraordinary events were not made in Table 5-2.

Chapter 6

SYSTEM DESCRIPTION

The UWMPA requires that the UWMP include a description of the agency's existing and future water supply sources for the next 20 years. The description of water supplies must include detailed information on surface water, groundwater, the groundwater basin, potential opportunities for desalination of groundwater and seawater, and detailed information on the agency's imported water.

6.1 Purchased or Imported Water

The TCPUD purchases water from the OVPSD to serve the Tahoe-Truckee Forest Tract system. Refer to Table 6-8 for the volume of water purchased from OVPSD in 2020.

6.2 Groundwater

The TCPUD currently utilizes local groundwater as the main water supply source. The TCPUD extracts groundwater via 12 active wells and one spring source scattered throughout the water service area. In addition, the TCPUD has one emergency backup supply in the Timberland service area (School Well) that is permitted for 100 gallons per minute (gpm).

6.2.1 Basin Description

The TCPUD is located within the geomorphic province known as the Lake Tahoe Basin. The groundwater underlying the TCPUD is part of the larger North Lahontan Hydrologic Basin Groundwater Basin. The North Lahontan region contains 27 alluvial groundwater basins and subbasins underlying approximately 1,600 square miles, or 26 percent, of the 6,100 square-mile hydrologic region. The majority of the easily accessible groundwater in the North Lahontan region is stored in alluvial aquifers. The TCPUD relies upon groundwater from the Tahoe Valley West Subbasin (California DWR Groundwater Basin Number 6-5.02).

6.2.2 Groundwater Management

The groundwater in the TCPUD's service area is not adjudicated. Therefore, the TCPUD is not subject to the Sustainable Groundwater Management Act of 2014 (SGMA) and there are no pumping limitations.

6.2.3 Overdraft Conditions

The DWR has not identified the North Lahontan Hydrologic Basin as overdrafted.

DWR has monitored the groundwater level at a California Statewide Groundwater Elevation Monitoring (CASGEM) well in the North Lahontan Hydrologic Basin, Martis Valley Subbasin (CASGEM Well Number [No.] 34407, Master Site Code 393006N1201122W001) semi-annually since 1990. The well is located southeast of the town of Truckee, between Truckee and Lake Tahoe. The well is drilled 100 feet below ground surface (bgs) and generally reflects water table fluctuations in the alluvial aquifer that overlies a fractured bedrock system in the Sierra Nevada.

Figure 6.1 shows the groundwater levels at the well from 1990 to 2021. Overall, there does not appear to be any increasing or decreasing trends in the groundwater levels.

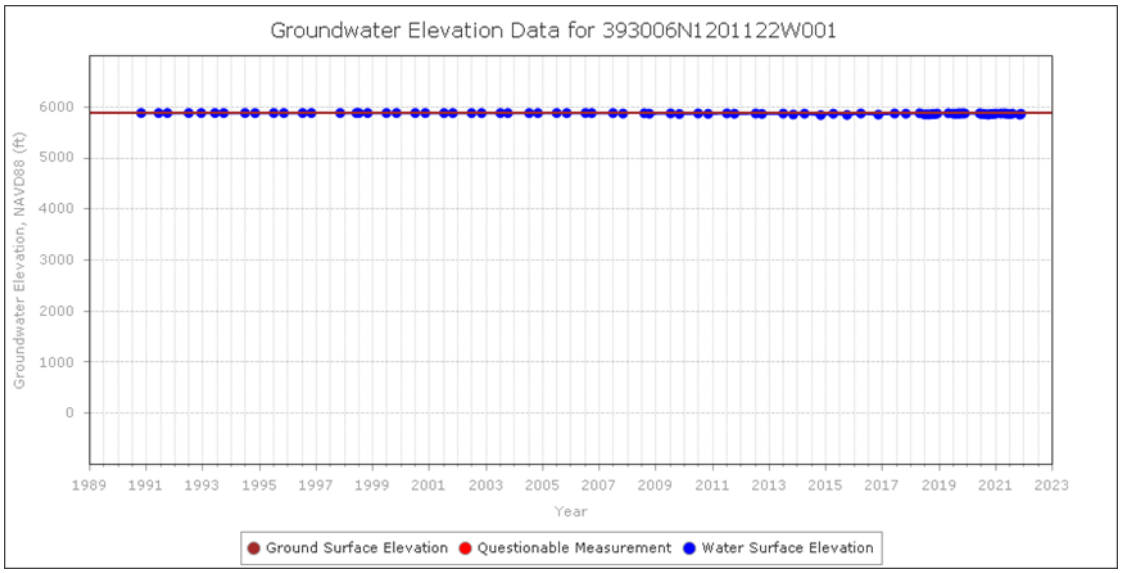

Figure 6.1 Martis Valley Subbasin Groundwater Levels

6.2.4 Historical Groundwater Pumping

The historical volume of groundwater pumped by the TCPUD over the past five years is provided in Table 6-1.

Submittal Table 6-1 Retail: Groundwater Volume Pumped						
☐	Supplier does not pump groundwater. The supplier will not complete the table below.					
☐	All or part of the groundwater described below is desalinated.					
Groundwater Type ***Drop Down List*** *May use each category multiple times*	Location or Basin Name	2016*	2017*	2018*	2019*	2020*
Add additional rows as needed						
Fractured Rock	Highland Wells (Tahoe City)	40	40	40	35	49
Fractured Rock	Tahoe City Well #2 (Tahoe City)	101	69	68	64	64
Fractured Rock	Tahoe City Well #3 (Tahoe City)	96	61	65	66	70
Fractured Rock	Tahoe City Well #4 (Tahoe City, see Note 1)	14	100	95	88	102
Fractured Rock	Tahoe Tavern Well (Tahoe City)	21	27	31	29	35
Fractured Rock	Rubicon Well #1 (Rubicon)	30	34	33	35	35
Fractured Rock	Rubicon Well #2 (Rubicon)	4	5	3	2	2
Fractured Rock	Rubicon Well #3 (Rubicon)	1	4	3	5	3
Fractured Rock	Crystal Way Well (McKinney-Quail)	21	24	24	24	30
Fractured Rock	Riley Springs (Alpine Peaks)	6	7	6	5	6
Fractured Rock	Silver Street Well (Madden Creek, see Note 2)	0	0	44	35	37
Fractured Rock	Elm Steet Well (Tahoe Cedars, see Note 2)	0	0	115	110	123
Fractured Rock	Timberland Well (Timberland, see Note 2)	0	0	14	14	15
	TOTAL	334	370	541	511	572
**** Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.*						
NOTES: Units of measure in this UWMP are million gallons (MG). (1) New municipal water supply well drilled and constructed in the latter part of 2015. Groundwater volume pumped based on meter readings beginning in September 2016. (2) Water system acquired January 1, 2018.						

6.3 Surface Water

Per Public Law 101-618 (Settlement Act) and the Truckee River Operating Agreement (TROA), TCPUD maintains legal water rights to divert over 1,000 AF, or approximately 326 MG, of surface water from Lake Tahoe and surrounding areas annually.

The TCPUD currently operates an interim WTP at Chambers Landing (constructed in 2004) to provide water supply to the McKinney/Quail water service area during peak demand months (May through September). Crystal Way Well is operated during non-peak demand months

(October through April) and as needed during peak demand months. Refer to Table 6-8 for the volume of water produced by the WTP in 2020. Refer to Section 6.8 for details on a project to replace the WTP with the West Lake Tahoe Regional WTP.

An emergency operations agreement has been established with the State Water Resources Control Board (SWRCB) Division of Drinking Water (DDW) to allow the use of standby lake pumps for the Tahoe City Main and McKinney/Quail systems. To date, the standby lake pumps have never been used.

6.4 Stormwater

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

6.5 Wastewater and Recycled Water

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

6.5.1 Recycled Water Coordination

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

The TCPUD does not have any current or planned recycled water uses. Refer to Section 6.5.5.1 for additional details.

6.5.2 Wastewater Collection, Treatment Systems, and Disposal

> *10633. (a) (Describe) the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.*

The TCPUD provides wastewater collection services to approximately 7,732 customers. The wastewater collection system consists of approximately 180 miles of gravity and force sewer mains and 21 sewer pumping stations. The wastewater flows collected by the TCPUD are conveyed approximately 17 miles to Truckee, California, through a large diameter gravity sewer main known as the Truckee River Interceptor (TRI), which is owned, operated, and maintained by the Tahoe-Truckee Sanitation Agency (TTSA). The wastewater flows collected by the TCPUD are treated at the TTSA's Water Reclamation Plant (WRP).

The 2020 wastewater flows from the TCPUD's service area is summarized in Table 6-2. As shown in Table 6-2, the TCPUD contributed 260 MG of wastewater flow to the TTSA WRP in 2020.

Submittal Table 6-2 Retail: Wastewater Collected Within Service Area in 2020						
☐	There is no wastewater collection system. The supplier will not complete the table below.					
100	Percentage of 2020 service area covered by wastewater collection system *(optional)*					
100	Percentage of 2020 service area population covered by wastewater collection system *(optional)*					
Wastewater Collection			**Recipient of Collected Wastewater**			
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? *Drop Down List*	Volume of Wastewater Collected from UWMP Service Area 2020 *	Name of Wastewater Treatment Agency Receiving Collected Wastewater	Treatment Plant Name	Is WWTP Located Within UWMP Area? *Drop Down List*	Is WWTP Operation Contracted to a Third Party? *(optional)* *Drop Down List*
TCPUD	Metered	260	Tahoe-Truckee Sanitation Agency	Water Reclamation Plant	No	No
Total Wastewater Collected from Service Area in 2020:		260				
**** Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3* **.**						
NOTES: Units of measure in this UWMP are million gallons (MG). The TCPUD currently provides water service to 5,730 connections but provides sewer service to 7,732 customers.						

6.5.3 Wastewater Treatment and Discharge within Service Area

The TCPUD does not have any wastewater treated or discharged within the service area. Therefore, Table 6-3 has been left blank.

Submittal Table 6-3 Retail: Wastewater Treatment and Discharge Within Service Area in 2020											
☑	**No wastewater is treated or disposed of within the UWMP service area.** The supplier will not complete the table below.										
Wastewater Treatment Plant Name	Discharge Location Name or Identifier	Discharge Location Description	Wastewater Discharge ID Number *(optional)* [2]	Method of Disposal *Drop down list*	Does This Plant Treat Wastewater Generated Outside the Service Area? *Drop down list*	Treatment Level *Drop down list*	2020 volumes [1] Wastewater Treated	Discharged Treated Wastewater	Recycled Within Service Area	Recycled Outside of Service Area	Instream Flow Permit Requirement
						Total	0	0	0	0	0
[1] **Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3. [2] If the **Wastewater Discharge ID Number** is not available to the UWMP preparer, access the SWRCB CIWQS regulated facility website at https://ciwqs.waterboards.ca.gov/ciwqs/readOnly/CiwqsReportServlet?inCommand=reset&reportName=RegulatedFacility											
NOTES:											

6.5.4 Recycled Water System Description

> *10633. (c) A description of the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.*

6.5.5 Recycled Water Beneficial Uses

6.5.5.1 Current and Planned Uses of Recycled Water

> *10633. (b) A description of the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.*
>
> *(d) A description and quantification of the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, indirect potable reuse, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.*
>
> *(e) The projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected pursuant to this subdivision.*

The TCPUD does not have any current or planned recycled water uses due to the following:

- The State Porter-Cologne Water Quality Control Act (1969) mandated that all sewage and/or treated effluent be exported from the Lake Tahoe Basin.
- The Federal Truckee-Carson-Pyramid Lake Water Rights Settlement Act (1990) prohibited the reduction in return flow of treated wastewater to the Truckee River without the acquisition of preexisting water rights or an offset returning Truckee River basin groundwater to the river or its tributaries.
- The wastewater flows collected by the TCPUD are treated at the TTSA's WRP located approximately 17 miles away from the TCPUD service area.

Therefore, Table 6-4 has been left blank.

Submittal Table 6-4 Retail: Recycled Water Direct Beneficial Uses Within Service Area

☑ Recycled water is not used and is not planned for use within the service area of the supplier. The supplier will not complete the table below.

Name of Supplier Producing (Treating) the Recycled Water:	
Name of Supplier Operating the Recycled Water Distribution System:	
Supplemental Water Added in 2020 (volume) *Include units*	
Source of 2020 Supplemental Water	

Beneficial Use Type *Insert additional rows if needed.*	**Potential** Beneficial Uses of Recycled Water (Describe)	Amount of **Potential** Uses of Recycled Water (Quantity) *Include volume units*[1]	General Description of 2020 Uses	Level of Treatment *Drop down list*	2020[1]	2025[1]	2030[1]	2035[1]	2040[1]	2045[1] (opt)
Agricultural irrigation										
Landscape irrigation (exc golf courses)										
Golf course irrigation										
Commercial use										
Industrial use										
Geothermal and other energy production										
Seawater intrusion barrier										
Recreational impoundment										
Wetlands or wildlife habitat										
Groundwater recharge (IPR)										
Reservoir water augmentation (IPR)										
Direct potable reuse										
Other (Description Required)										
				Total:	0	0	0	0	0	0
				2020 Internal Reuse						

[1] ***Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:

6.5.5.2 Planned Versus Actual Use of Recycled Water

The TCPUD does not have any current or planned recycled water uses. Therefore, Table 6-5 has been left blank.

Submittal Table 6-5 Retail: 2015 UWMP Recycled Water Use Projection Compared to 2020 Actual		
☑	Recycled water was not used in 2015 nor projected for use in 2020. The supplier will not complete the table below. If recycled water was not used in 2020, and was not predicted to be in 2015, then check the box and do not complete the table.	
Beneficial Use Type	**2015 Projection for 2020 [1]**	**2020 Actual Use [1]**
Insert additional rows as needed.		
Agricultural irrigation		
Landscape irrigation (exc golf courses)		
Golf course irrigation		
Commercial use		
Industrial use		
Geothermal and other energy production		
Seawater intrusion barrier		
Recreational impoundment		
Wetlands or wildlife habitat		
Groundwater recharge (IPR)		
Reservoir water augmentation (IPR)		
Direct potable reuse		
Other (Description Required)		
Total	0	0
[1] **Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.		
NOTE:		

6.5.6 Actions to Encourage and Optimize Future Recycled Water Use

10633. The plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier... and shall include the following:

(g) A plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.

The TCPUD does not have any current or planned recycled water uses. Therefore, Table 6-6 has been left blank.

Submittal Table 6-6 Retail: Methods to Expand Future Recycled Water Use			
☑	Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.		
Section 6.5.6	Provide page location of narrative in UWMP		
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use *
Add additional rows as needed			
		Total	0
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*			
NOTES:			

6.6 Desalinated Water Opportunities

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

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

At the present time, the TCPUD does not foresee any opportunities for the use of desalinated water, including ocean water, brackish ocean water, and brackish groundwater, as a long-term supply since the TCPUD is not located near the coast or a brackish groundwater source.

6.7 Exchanges or Transfers

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

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

6.7.1 Exchanges

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

6.7.2 Transfers

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

6.7.3 Emergency Interties

The TCPUD maintains two emergency interties with public water systems operated by other entities:

- TCPUD-Tahoe City Main to Tahoe Park Water Company: This emergency intertie is between the TCPUD-Tahoe City Main system and the Tahoe Park Water Company, a private investor owned utility. The interconnection can only provide water from TCPUD-Tahoe City Main system to Tahoe Park Water Company through a signed emergency interconnection agreement.
- TCPUD-McKinney/Quail to McKinney Water District: This emergency intertie is between the TCPUD-McKinney/Quail system and the McKinney Water District, a separate entity formed as a County Water District. The interconnection can provide water to either entity under provisions of a signed mutual aid water agreement.
- TCPUD-Madden Creek to Tahoe Swiss Village Utilities: This emergency intertie is between the TCPUD-Madden Creek system and the Tahoe Swiss Village Utilities, a separate privately owned public water system. The interconnection can provide water to either entity. A mutual aid water agreement is currently being drafted.

The TCPUD also maintains emergency interconnections between the TCPUD's water systems to improve water supply reliability, including interconnections between the McKinney/Quail, Tahoe Cedars, and Madden Creek water systems:

- TCPUD-McKinney/Quail to TCPUD-Tahoe Cedars: This emergency interconnection can provide water to either system. The ability to flow water from the McKinney/Quail system to the Tahoe Cedars system is on demand. The ability to flow water from the Tahoe Cedars system to the McKinney/Quail system must be initiated by operators in the field.
- TCPUD-McKinney/Quail to TCPUD-Madden Creek: This emergency interconnection can provide water to either system. The ability to flow water from the McKinney/Quail system to the Madden Creek system is on demand. The ability to flow water from the Madden Creek system to the McKinney/Quail system must be initiated by operators in the field and is limited hydraulically to approximately 50 percent of the McKinney/Quail system service area.

6.8 Future Water Projects

> *10631(f)… The urban water supplier shall include a detailed description of expected future projects and programs that the urban water supplier may implement to increase the amount of the water supply available to the urban water supplier in normal and single dry water years and for a period of drought lasting five consecutive water years. The description shall identify specific projects and include a description of the increase in water supply that is expected to be available from each project. The description shall include an estimate with regard to the implementation timeline for each project or program.*

The UWMPA requires that suppliers describe water supply projects and programs that may be undertaken to meet the projected water demands.

The future water supply projects to increase water supply are shown in Table 6-7. Refer to the Capital Improvement Plan budget and project data sheets, included as Appendix E, for additional project descriptions.

Submittal 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 suppliers?		Description (if needed)	Planned Implementation Year	Planned for Use in Year Type *Drop Down List*	Expected Increase in Water Supply to Supplier* *This may be a range*
	Drop Down List (y/n)	*If Yes, Supplier Name*				
Add additional rows as needed						
West Lake Tahoe Regional Water Treatment Plant	No		New surface water treatment plant	2024	All Year Types	343
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*						
NOTES: Units of measure in this UWMP are million gallons (MG).						

6.9 Summary of Existing and Planned Sources of Water

> *10631 (b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a), providing supporting and related information, including all of the following...*
>
> *(b)(2) When multiple sources of water supply are identified, a description of the management of each supply in correlation with the other identified supplies.*
>
> *(h) An urban water supplier that relies upon a wholesale agency for a source of water shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. The wholesale agency shall provide information to the urban water supplier for inclusion in the urban water supplier's plan that identifies and quantifies, to the extent practicable, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year increments, and during various water-year types in accordance with subdivision (f). An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (f).*

The actual source and volume of water for the year 2020 is presented in Table 6-8. As shown in Table 6.8, the TCPUD's actual supply was approximately 594 MG and groundwater provided approximately 96 percent of the TCPUD's water supply.

Submittal Table 6-8 Retail: Water Supplies — Actual				
Water Supply		2020		
Drop down list May use each category multiple times.These are the only water supply categories that will be recognized by the WUEdata online submittal tool	Additional Detail on Water Supply	Actual Volume*	Water Quality Drop Down List	Total Right or Safe Yield* (optional)
Add additional rows as needed				
Purchased or Imported Water	Olympic Valley Public Service District	2	Drinking Water	
Groundwater (not desalinated)	Highland Wells (Tahoe City)	49	Drinking Water	
Groundwater (not desalinated)	Tahoe City Well #2 (Tahoe City)	64	Drinking Water	
Groundwater (not desalinated)	Tahoe City Well #3 (Tahoe City)	70	Drinking Water	
Groundwater (not desalinated)	Tahoe City Well #4 (Tahoe City)	102	Drinking Water	
Groundwater (not desalinated)	Tahoe Tavern Well (Tahoe City)	35	Drinking Water	
Groundwater (not desalinated)	Rubicon Well #1 (Rubicon)	35	Drinking Water	
Groundwater (not desalinated)	Rubicon Well #2 (Rubicon)	2	Drinking Water	
Groundwater (not desalinated)	Rubicon Well #3 (Rubicon)	3	Drinking Water	
Groundwater (not desalinated)	Crystal Way Well (McKinney-Quail)	30	Drinking Water	
Groundwater (not desalinated)	Riley Springs (Alpine Peaks)	6	Drinking Water	
Groundwater (not desalinated)	Silver Street Well (Madden Creek)	37	Drinking Water	
Groundwater (not desalinated)	Elm Steet Well (Tahoe Cedars)	123	Drinking Water	
Groundwater (not desalinated)	Timberland Well (Timberland)	15	Drinking Water	
Surface water (not desalinated)	Chambers Landing Intake (McKinney-Quail)	20	Drinking Water	
	Total	594		0
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*				
NOTES: Units of measure in this UWMP are million gallons (MG).				

The projected water supply in 5-year increments is included in Table 6-9.

Submittal Table 6-9 Retail: Water Supplies — Projected											
Water Supply		Projected Water Supply * Report To the Extent Practicable									
Drop down list May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool	Additional Detail on Water Supply	2025		2030		2035		2040		2045 (opt)	
		Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)
Add additional rows as needed											
Purchased or Imported Water	Olympic Valley Public Service District	4		4		4		4			
Groundwater (not desalinated)	Highland Wells (Tahoe City)	39		39		39		39			
Groundwater (not desalinated)	Tahoe City Well #2 (Tahoe City)	155		155		155		155			
Groundwater (not desalinated)	Tahoe City Well #3 (Tahoe City)	179		179		179		179			
Groundwater (not desalinated)	Tahoe City Well #4 (Tahoe City)	96		96		96		96			
Groundwater (not desalinated)	Tahoe Tavern Well (Tahoe City)	57		57		57		57			
Groundwater (not desalinated)	Rubicon Well #1 (Rubicon)	48		48		48		48			
Groundwater (not desalinated)	Rubicon Well #2 (Rubicon)	17		17		17		17			
Groundwater (not desalinated)	Rubicon Well #3 (Rubicon)	3		3		3		3			
Groundwater (not desalinated)	Crystal Way Well (McKinney-Quail)	50		50		50		50			
Groundwater (not desalinated)	Riley Springs (Alpine Peaks)	10		10		10		10			
Groundwater (not desalinated)	Silver Street Well (Madden Creek)	40		40		40		40			
Groundwater (not desalinated)	Elm Steet Well (Tahoe Cedars)	125		125		125		125			
Groundwater (not desalinated)	Timberland Well (Timberland)	15		15		15		15			
Surface water (not desalinated)	Chambers Landing Intake (McKinney-Quail)	0		0		0		0			
Surface water (not desalinated)	West Lake Tahoe Regional Water Treatment Plant (McKinney-Quail)	343		343		343		343			
	Total	1,181	0	1,181	0	1,181	0	1,181	0	0	0
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*											
NOTES: Units of measure in this UWMP are million gallons (MG).											

6.10 Climate Change Impacts to Supplies

The CWC requires that suppliers consider climate change in their water supply analysis. The potential water supply effects related to climate change are discussed briefly in this section.

Because the TCPUD is largely reliant on groundwater for its potable water supply, the effects of climate change are best summarized by considering the effects of the region as a whole. These effects will likely include:

- Reduction in snowpack, which is a significant source of water as it melts and feeds aquifers in the Lake Tahoe Basin.
- Increase in intensity and frequency of extreme weather events.
- Effects on groundwater recharge during droughts.
- General decline in ecosystem health and function.
- Changes to demand levels and patterns due to increasing temperatures.

As scientific understanding of climate change continues to advance, the nature of these impacts and the impact on water supply availability and reliability will be thoroughly studied to identify proper mitigation and adaptation strategies.

One additional consideration for the TCPUD is the impact of wildfires on water quality. The wildfire season is typically followed by the rainy season and sometimes heavy precipitation, leading to high levels of sediment in runoff that can severely degrade water quality, such as the increase in turbidity levels. In addition, Per- and polyfluoroalkyl substances (PFAS) is also an emerging contaminant that can be found in firefighting foam that can stay and spread in the environment for decades and become a major contributor to drinking water contamination. With the increasing frequency of wildfires and atmospheric rivers across California, changes in treatment operations and/or treatment processes may be necessary to reliably treat and maintain water service to customers experiencing back-to-back impacts.

Additional details related to climate change data that has been collected using the Cal-Adapt tool are included in Chapter 3.

6.11 Energy Intensity

The 2020 UWMP guidebook requests that water suppliers provide information on the energy required to produce and distribute their water supply. Water energy intensity is the total amount of energy on a per acre-foot basis associated with water management processes occurring within the TCPUD's operational control. The TCPUD has selected to report its energy intensity using the total utility approach Option B. In 2020, the TCPUD produced 581 MG of water within its service area. The kilowatt hours (kWh) of energy needed across the TCPUD's potable water system was 1,480,591 kWh. The energy intensity analysis is located in Appendix F. The TCPUD's 2020 energy intensity is estimated at 2,548 kWh/MG.

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Chapter 7

WATER SERVICE RELIABILITY AND DROUGHT RISK ASSESSMENT

The UWMPA requires that the UWMP address the reliability of the agency's water supplies. This includes supplies that are vulnerable to seasonal or climatic variations. In addition, an analysis must be included to address supply availability in a single-dry year and in a five-consecutive-year drought.

> *10635 (a) Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the long-term total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and a drought lasting five consecutive water years. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.*

7.1 Introduction

The TCPUD currently utilizes local groundwater as the main water supply source. Additionally, the TCPUD purchases water from the OVPSD to serve the Tahoe-Truckee Forest Tract system and operates an interim WTP at Chambers Landing to serve the McKinney/Quail system during peak demand months.

7.2 Constraints of Water Sources

> *10631 (b)(1) A detailed discussion of anticipated supply availability under a normal water year, single dry year, and droughts lasting at least five years, as well as more frequent and severe periods of drought, as described in the drought risk assessment. For each source of water supply, consider any information pertinent to the reliability analysis conducted pursuant to Section 10635, including changes in supply due to climate change*

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

There are a variety of factors that can affect water supply reliability. The factors that might result in supply reliability issues include water quality and climatic changes.

7.2.1 Water Supply Quality

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

In general, groundwater quality and surface water quality from Lake Tahoe are very good, and as such have a limited effect on the TCPUD's ability to provide its service area with a reliable source of high quality drinking water. Nor does it have a significant effect on water management strategies or supply reliability.

The Annual Consumer Confidence Reports (CCRs) for the TCPUD's service area in year 2020 can be found in Appendix G.

7.2.2 Climate Change

Climate change is likely to add uncertainties to supply planning and future supply availability. The severe and prolonged drought that began in 2012 has been a test of the TCPUD's ability to prepare for, and adapt to, the effects of climate change. Considering reductions in per capita use and projected demands, the TCPUD continues to balance a cautious optimism with a long-term strategy for sustainable sources of supply.

As stated in Chapter 4, the altered climate patterns in California creating hotter days and longer heat waves will increase customer water use and evaporative water losses. Extended drought periods are expected to become both more frequent, and more severe, which could lead to reduced surface water flows, reduced rainfall and snowpack, and less groundwater availability for the TCPUD. Higher temperatures and decreased precipitation will result in drought, making wildfires more frequent, more severe, and harder to fight with less water supplies. Wildfires, followed by flooding, mean more landslides and mudslides, further impacting water supply reliability. Creating defensible space as well as slope stabilization and erosion prevention near critical infrastructure will be important for preserving supplies.

Efficient use of water is paramount in the TCPUD's effort to adapt to climate change. Technology and equipment to appropriately monitor and manage water supplies will be critical. Ensuring that pipes are appropriately sized and upgraded to minimize water loss is equally important. Redundancy in source of supply will provide operational flexibility in the event supplies are interrupted by fire, floods, earthquakes, or drought. Climate change effects such as drought, wildfire, and temperature fluctuations may all contribute to a degradation of water quality over time.

7.2.3 Potential Alternative Sources

In 2020, groundwater provided approximately 96 percent of the TCPUD's water supply. TCPUD has identified this reliance on groundwater as a potential constraint on future water supply. As stated in Chapter 6, the TCPUD has not identified any transfer or exchange opportunities, or opportunities related to stormwater, recycled water, or desalinated water. In order to improve local control over the water supply, the TCPUD is in process of constructing the West Lake Tahoe Regional WTP as described in Section 6.8.

7.3 Water Supply Reliability by Type of Year

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

These scenarios are defined as follows:

- Average Year: A year, or an averaged range of years, that most closely represents the average water supply available to the TCPUD. Generally, a year in the historical sequence that most closely represents median runoff levels and patterns. It is defined as the median runoff over the previous 30 years or more. This median is recalculated every 10 years.
- Single-Dry Year: The year that represents the lowest water supply available to the TCPUD. Generally considered to be the lowest annual runoff for a watershed since the water-year beginning in 1903. Suppliers should determine this for each watershed from which they receive supplies.
- Five-Consecutive-Year Drought: The period that represents the driest five-year historical sequence for the TCPUD. Generally considered to be the lowest average runoff for a five consecutive-year period for a watershed since 1903.

7.3.1 Basis of Water Year Data

Since the source for the TCPUD is mainly groundwater, the runoff tables are not deemed as suitable for selecting year types since the timing for recharge would vary. Groundwater elevation data were analyzed for CASGEM Well No. 34407 (Master Site Code 393006N1201122W001) located in the North Lahontan Hydrologic Basin, Martis Valley Subbasin. The ground surface elevation is 5,884.07 feet and the reference point (RP) elevation is 5,887.37 feet. Data was available from 1990 through 2021. The median groundwater elevation was 5,874.47 feet and the minimum was 5,842.87 feet in 2014. Groundwater elevation records were reviewed for the years 2000 to 2020. Using the median, the average year would be 2008 (average elevation 5,873.87). The single-dry year would be 2015 and the five-consecutive-year drought years would be 2012 through 2016.

A prolonged drought has historically had little extended effect upon water supply availability. Data demonstrates that periods of drought have resulted in short-term increases in the depth to groundwater due to the slower than normal aquifer recharge. Historically, the water table has recharged and depth to groundwater returned to average levels in the years following periods of drought. To date, the temporary increase in depth to groundwater has not impacted the TCPUD's ability to supply water, nor has there been any significant impact upon the well water quality. The volume available and supply by water year type cannot be accurately determined since the water pumped is based on demand that includes the conservation measures implemented that year. This may change in the 2025 UWMP based on the impact of drought on groundwater levels and any changes in groundwater management that could occur in the future.

As described above, the specific years identified for average, single-dry, and five consecutive-year drought water years presented in Table 7-1 were developed based on the CASGEM Program historical groundwater level records for the Martis Valley Subbasin. As discussed above, the available supply cannot be quantified. Therefore, the box indicating that the quantification of available supplies is not compatible with Table 7-1 has been checked, but the water type years have been included.

Submittal Table 7-1 Retail: Basis of Water Year Data (Reliability Assessment)			
Year Type	**Base Year** If not using a calendar year, type in the last year of the fiscal, water year, or range of years, for example, water year 2019-2020, use 2020	**Available Supplies if Year Type Repeats**	
		☑	Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location __Section 7.3.1_____
		☐	Quantification of available supplies is provided in this table as either volume only, percent only, or both.
		Volume Available *	**% of Average Supply**
Average Year	2008		100%
Single-Dry Year	2015		
Consecutive Dry Years 1st Year	2012		
Consecutive Dry Years 2nd Year	2013		
Consecutive Dry Years 3rd Year	2014		
Consecutive Dry Years 4th Year	2015		
Consecutive Dry Years 5th Year	2016		
Supplier may use multiple versions of Table 7-1 if different water sources have different base years and the supplier chooses to report the base years for each water source separately. If a Supplier uses multiple versions of Table 7-1, in the "Note" section of each table, state that multiple versions of Table 7-1 are being used and identify the particular water source that is being reported in each table.			
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*			
NOTES:			

7.4 Water Service Reliability Assessment

> *10635(a). Every urban water Supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the long-term total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and a drought lasting five consecutive water years. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.*

The projected demand and supplies are compared in 5-year increments in Table 7-2, Table 7-3, and Table 7-4. The demand is based on the total water use from Table 4-3. The supply is based on the reasonably available volume from Table 6-9.

7.4.1 Normal Year

Table 7-2 provides an estimate of the projected normal year supply and demand totals.

Submittal Table 7-2 Retail: Normal Year Supply and Demand Comparison					
	2025	2030	2035	2040	2045 *(Opt)*
Supply totals *(autofill from Table 6-9)*	1,181	1,181	1,181	1,181	0
Demand totals *(autofill from Table 4-3)*	564	552	559	567	0
Difference	617	629	622	614	0
NOTES: Units of measure in this UWMP are million gallons (MG).					

7.4.2 Single-Dry Year

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

Submittal Table 7-3 Retail: Single Dry Year Supply and Demand Comparison					
	2025	2030	2035	2040	2045 (Opt)
Supply totals*	1,181	1,181	1,181	1,181	
Demand totals*	564	552	559	567	
Difference	617	629	622	614	0
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*					
NOTES: Units of measure in this UWMP are million gallons (MG).					

7.4.3 Five-Consecutive-Year Drought

Table 7-4 provides an estimate of the projected five consecutive-year drought supply and demand totals. Demand reductions due to water shortage stage rationing measures are not included in the five-consecutive-year drought demand estimates.

Submittal Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison						
		2025*	2030*	2035*	2040*	2045* (Opt)
First year	Supply totals	1,181	1,181	1,181	1,181	
	Demand totals	564	552	559	567	
	Difference	617	629	622	614	0
Second year	Supply totals	1,181	1,181	1,181	1,181	
	Demand totals	564	552	559	567	
	Difference	617	629	622	614	0
Third year	Supply totals	1,181	1,181	1,181	1,181	
	Demand totals	564	552	559	567	
	Difference	617	629	622	614	0
Fourth year	Supply totals	1,181	1,181	1,181	1,181	
	Demand totals	564	552	559	567	
	Difference	617	629	622	614	0
Fifth year	Supply totals	1,181	1,181	1,181	1,181	
	Demand totals	564	552	559	567	
	Difference	617	629	622	614	0
Sixth year *(optional)*	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*						
NOTES: Units of measure in this UWMP are million gallons (MG).						

7.4.4 Hazard Mitigation Plan

Placer County's Local Hazard Mitigation Plan (LHMP) is available for review at www.placer.ca.gov/DocumentCenter/View/55467/Placer-County-LHMP-Update-Complete?bidId=. Refer to Annex W for hazard mitigation planning elements specific to the TCPUD.

El Dorado County's LHMP is available for review at www.edcgov.us/Government/sheriff/Documents/ElDoradoCounty_LHMP.pdf.

Refer to Section 8.7 for additional details.

7.5 Drought Risk Assessment

> *10635(b) Every urban water supplier shall include, as part of its urban water management plan, a drought risk assessment for its water service to its customers as part of information considered in developing the demand management measures and water supply projects and programs to be included in the urban water management plan. The urban water supplier may conduct an interim update or updates to this drought risk assessment within the five-year cycle of its urban water management plan update. The drought risk assessment shall include each of the following…*
>
> *(3) A comparison of the total water supply sources available to the water supplier with the total projected water use for the drought period. [Emphasis added]*
>
> *(4) Considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.*

CWC Section 10635(b) is a new requirement for the 2020 UWMPs where suppliers are required to prepare a DRA with descriptions of data and methods used, basis for the supply shortage conditions, determination of the reliability of sources, and a comparison of the total water supplies and uses during the drought. The DRA will be submitted every five years in addition to conducting an annual water supply and demand assessment. Evaluation for the DRA is based on the five dry years with consideration of climate changes, regulations, and other local criteria. In the event of stressed hydrologic conditions, suppliers will consider management of their water supplies in relation to customer usage, identify potential system vulnerabilities, and provide explanations of assumptions and decisions on which the analysis was based.

A summary of the TCPUD's water supply DRA from 2021 through 2025 is summarized in Table 7-5. Table 7-5 contains the projected potable demands from 2021 through 2025. There is sufficient supply to meet projected demands within the next five years. Use reduction savings are not quantified in Table 7-5 (refer to Table 8-3).

Submittal Table 7-5: Five-Year Drought Risk Assessment Tables to address Water Code Section 10635(b)

2021	Total
Total Water Use	578
Total Supplies	838
Surplus/Shortfall w/o WSCP Action	260
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	260
Resulting % Use Reduction from WSCP action	0%

2022	Total
Total Water Use	574
Total Supplies	838
Surplus/Shortfall w/o WSCP Action	264
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	264
Resulting % Use Reduction from WSCP action	0%

2023	Total
Total Water Use	571
Total Supplies	838
Surplus/Shortfall w/o WSCP Action	267
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	267
Resulting % Use Reduction from WSCP action	0%

2024	Total
Total Water Use	568
Total Supplies	1,095
Surplus/Shortfall w/o WSCP Action	528
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	528
Resulting % Use Reduction from WSCP action	0%

2025	Total
Total Water Use	564
Total Supplies	1,181
Surplus/Shortfall w/o WSCP Action	617
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	617
Resulting % Use Reduction from WSCP action	0%

7.6 Regional Supply Reliability

> *10620 (f) an urban water supplier shall describe in the plan water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions.*

The TCPUD is maximizing the use of local water resources by showing the long term reliability of its groundwater sources and with the addition of a highly reliable source in Lake Tahoe with the West Lake Tahoe Regional WTP project. In addition to source reliability, the TCPUD has the ongoing goal of reducing waste through the implementation of DMMs. These collective efforts help to minimize the need to purchase water from other agencies, construct new wells, or consider import of water from other regions.

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Chapter 8

WATER SHORTAGE CONTINGENCY PLAN

In response to the severe drought of 2012-2016, new legislation in 2018 created a WSCP mandate replacing the water shortage contingency analysis under former law. The new requirements are more prescriptive to have consistency throughout California. The TCPUD adopted Ordinance 304, "Water Conservation and Drought Response Standards," included in Appendix H, serves as the TCPUD's WSCP and may be amended as needed without amending this 2020 UWMP.

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

8.1 WSCP Overview

The TCPUD's WSCP details the actions to be taken during a reduction in available water supply. These actions are broken up based upon six possible stages of water shortage. Reductions in supply are most frequently associated with drought, but could also be the result of flooding, major fire emergencies, earthquakes, regional power outages, water contamination, and any other situation that could impact the TCPUD's water supply.

The goal of a WSCP is to have a procedure for managing and mitigating shortages allowing the TCPUD to respond in an efficient and timely manner. Water shortage response actions include demand reduction, supply augmentation, operational changes, and mandatory prohibitions to address shortage levels. The following sections summarize the TCPUD's water shortage stages and the measures employed during each stage, as outlined in the WSCP.

8.2 Stages of Action

The stages of action in response to water supply shortages, including greater than 50 percent reduction in water supply are summarized in Table 8-1. Detailed descriptions of each stage of action are included in the Water Conservation and Drought Response Standards Ordinance (Appendix H). Drought Response Stage 1 is the normal operating stage for all water service areas and is always in effect.

Submittal Table 8-1 **Water Shortage Contingency Plan Levels**		
Shortage Level	**Percent Shortage Range**	**Shortage Response Actions** (*Narrative description*)
1	Up to 10%	Normal Conditions
2	Up to 20%	Moderate Water Shortage
3	Up to 30%	Significant Water Shortage
4	Up to 40%	Severe Water Shortage
5	Up to 50%	Critical Water Shortage
6	>50%	Water Shortage Emergency (see Note 1)
NOTES: (1) Major catastrophe or contamination of the water supply including flooding, major fire emergencies, earthquakes, regional power outages, water contamination, and emergencies other than water shortage.		

8.3 Demand Reduction

Table 8-2 contains demand reduction actions and the water shortage stage when they are enacted. These prohibitions are detailed in the Water Conservation and Drought Response Standards Ordinance (Appendix H).

Submittal Table 8-2: Demand Reduction Actions				
Shortage Level	Demand Reduction Actions ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.*	How much is this going to reduce the shortage gap? *Include units used (volume type or percentage)*	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? ***For Retail Suppliers Only*** *Drop Down List*
Add additional rows as needed				
1-6	Other - Require automatic shut of hoses	<5%		Yes
1-6	Landscape - Restrict or prohibit runoff from landscape irrigation	<10%		Yes
1-6	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	<5%		Yes
1-6	Landscape - Prohibit certain types of landscape irrigation	<10%		Yes
1-6	Landscape - Limit landscape irrigation to specific times	<5%		Yes
2-6	Landscape - Limit landscape irrigation to specific days	<5%		Yes
2-6	CII - Restaurants may only serve water upon request	<1%		Yes
2-6	CII - Lodging establishment must offer opt out of linen service	<2%		Yes
3-6	Other - Prohibit use of potable water for washing hard surfaces	<5%		Yes
3-6	Water Features - Restrict water use for decorative water features, such as fountains	<5%		Yes
4-6	Landscape - Other landscape restriction or prohibition	<5%		Yes
5-6	CII - Other CII restriction or prohibition	<5%		Yes
6	Landscape - Prohibit all landscape irrigation	<30%		Yes
6	Other	<5%		Yes
NOTES:				

On May 9, 2016, the Governor of California issued an Executive Order declaring the following practices be permanently prohibited:

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

8.4 Supply Augmentation

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

Submittal Table 8-3: Supply Augmentation and Other Actions			
Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool*	How much is this going to reduce the shortage gap? *Include units used (volume type or percentage)*	Additional Explanation or Reference *(optional)*
Add additional rows as needed			
1-6	Expand Public Information Campaign	<5%	
1-6	Other Actions (describe)	<5%	Increase Frequency of Meter Reading
1-6	Other Actions (describe)	<5%	Offer Water Use Surveys
1-6	Other Actions (describe)	<5%	Provide Rebates on Plumbing Fixtures and Devices
1-6	Other Actions (describe)	<5%	Provide Rebates for Landscape Irrigation Efficiency
1-6	Other Actions (describe)	<1%	Reduce System Water Loss
NOTES:			

8.5 Annual Water Supply and Demand Assessment Procedures

The annual water supply and demand assessment identifies key data and methods for determining the supply reliability each year. The annual assessment is due to DWR on or before July 1 of each year, as required by CWC Section 10632.1. The assessment assumes the year following the planning calendar year is a dry year.

The annual supply and demand assessment will include:

- Anticipated shortage
- Triggered shortage response actions
- Compliance and enforcement actions
- Communication actions
- Review of assets

8.5.1 Timeline

The timeline for the annual supply and demand assessment is listed below and is subject to change.

- Preparation of draft supply and demand analysis – February
- Submit and present assessment to General Manager – March
- Update and finalize assessment – April
- Receive General Manager approval – May or June
- Annual supply and demand assessment – Due July 1

8.5.2 Decision-Making Process

The steps in the decision-making process that the TCPUD will use each year to determine and subsequently report to the state are listed below:

1. Determine supply available, infrastructure constraints, and expected demand.
2. Compare supply and demand and decide on the water supply reliability for the current year and one dry year.
3. Present the findings and recommendations of the Annual Assessment Report to the General Manager.
4. Prepare and submit the Annual Assessment Report to the state.
5. Determine the shortage levels and other conservation matters, including but not limited to any restrictions in the number of new service connections allowed annually for any or all portions of the TCPUD service area.
6. The General Manager or a designated representative implements the provisions of the WSCP.

8.5.3 Key Data and Methodologies

The key data inputs and assessment methodology used to evaluate the TCPUD's water supply reliability for the current year and one dry year, include the following:

- Current year unconstrained demand, considering weather, growth, building permit trends, and other influencing factors.
- Current year available supply, considering hydrological and regulatory conditions in the current year and one dry year. The annual supply and demand assessment may consider more than one dry year solely at the discretion of the TCPUD.
- Existing infrastructure capabilities and plausible constraints.
- A defined set of locally applicable evaluation criteria that are consistently relied upon for each annual water supply and demand assessment.
- A description and quantification of each source of water supply.
- The California Drought Monitor.
- Precipitation on a calendar and weather year basis.
- Any potential State or regional actions related to drought and water use restrictions.

8.5.3.1 Water Supply

The annual assessment will evaluate the current year available and one subsequent dry year. The available water supplies for the TCPUD shall be quantified each year by summing the available water supplies. Potential production constraints, hydrological, and regulatory conditions will be considered.

8.5.3.2 Unconstrained Customer Demand

Water demand/consumption for the previous year shall be quantified by summing the meter usage of each customer class for the previous year. Customer water demands shall be projected for the upcoming year based on the previous year's water consumption and the projected population growth.

8.5.3.3 Planned Water Use for Current Year Considering Dry Subsequent Year

The planned water use for the current year is not impacted by an anticipated subsequent dry year. However, a subsequent dry year will be considered during the assessment. The dry year will be equivalent to the lowest water supply available to the TCPUD.

8.5.3.4 Infrastructure Considerations

Infrastructure projects anticipated for the upcoming year that could impact water supply production (e.g., new groundwater well, etc.) will be evaluated for the timeframe the projects will impact supply. The available water supply will be increased or reduced accordingly for each month.

8.5.3.5 Evaluation Criteria

Evaluation of the appropriate shortage level will include, but not be limited to, the following considerations:

1. Current and recent trends in groundwater and Lake Tahoe levels.
2. Other hydrological or other local conditions indicative of water supply available.
3. The previous winter's precipitation.
4. The previous year's water demand.
5. Current demand and anticipated demand for water by TCPUD customers.
6. Current and anticipated supply of TCPUD water sources.
7. Damage to one or more of the TCPUD's water systems.
8. Predicted weather patterns.
9. Water content of the snowpack.
10. Climate change impacts.
11. California Drought Monitor.
12. Current or pending state and regional water use efficiency or drought related actions.

If the available water supply is greater than the anticipated customer demand for the upcoming year, then the TCPUD does not need to take any further action. If the anticipated customer demand for the upcoming year is greater than the available water supplies, or that additional conditions exist (such as a State declared drought emergency), the TCPUD can initiate water conservation actions as detailed in the WSCP.

8.5.3.6 Triggering Mechanisms for Shortage Levels

The triggering mechanisms to use as guidelines for the shortage levels include:

- System malfunction resulting in up to the percent shortage of a level or catastrophic interruption of water supplies.
- TCPUD or state declaration due to drought.
- Federal, state, or local disaster declaration that may impact water supplies.
- TCPUD determination.
- Unplanned TCPUD water system maintenance.

The TCPUD may impose any of the shortage levels based upon facts and circumstances which may not have been otherwise anticipated in this chapter or WSCP.

8.6 Catastrophic Supply Intervention

The UWMPA requires that the TCPUD develop stages of action to be undertaken during a catastrophic interruption of water supply or the TCPUD's water treatment facilities that could include flooding, major fire emergencies, regional power outage, an earthquake, water contamination, and acts of sabotage.

The TCPUD Emergency Response Plan (2021) serves as a guide for the TCPUD's response to emergencies/disasters within TCPUD boundaries and to coordinate and assist with disaster response in neighboring jurisdictions.

8.7 Hazard Mitigation Plan

The TCPUD owns, maintains, and operates a WTP, water supply wells, storage tanks, and water line throughout the service area. All components of the TCPUD's water system are vulnerable to seismic activity.

Placer County's Local Hazard Mitigation Plan (LHMP) is available for review at www.placer.ca.gov/DocumentCenter/View/55467/Placer-County-LHMP-Update-Complete?bidId=. Refer to Annex W for hazard mitigation planning elements specific to the TCPUD. The Hazard Identification Assessment for the TCPUD indicates the following for earthquake hazard:

- Significant Geographic Extent: 10 to 50 percent of planning area.
- Occasional Likelihood of Future Occurrences: Between 1 and 10 percent chance of occurrence in the next year or has a recurrence interval of 11 to 100 years.
- Critical Magnitude/ Severity: 25 to 50 percent of property severely damaged; shutdown of facilities for at least two weeks; and/or injuries and/or illnesses result in permanent disability.
- Low Significance: Minimal potential impact.
- Low Climate Change Influence: Minimal potential impact.

El Dorado County's LHMP is available for review at www.edcgov.us/Government/sheriff/Documents/ElDoradoCounty_LHMP.pdf.

The LHMPs may be updated at any time. The most recent LHMPs shall apply to the current WSCP.

8.8 Revenue and Expenditure Impacts

The Tahoe City Main, Rubicon, McKinney/Quail, Alpine Peaks, Tahoe-Truckee Forest Tract systems, and Timberland water systems are metered and customers are billed volumetrically. Therefore, the TCPUD may experience a decrease in revenue with reduced water sales during a water shortage. Although the variable costs of supplying water will be reduced as water usage decreases, the fixed costs will remain constant. The variable costs are linked to the purchase of imported water and operation of the wells (power and usage-based maintenance). The fixed costs include operations, salaries, debt service, capital projects, and other similar expenses.

Additional costs during water shortage situations could be associated with increased monitoring, efficiency incentives, and outreach, namely due to an increase in the hours required to monitor customer accounts and enforce reduction actions. The additional costs associated with this effort, however, are not expected to significantly impact revenues and expenditures.

To overcome a reduction in revenue due to a water shortage, the TCPUD could adjust the water rates or utilize a reserve fund. During the 2015 drought and resulting emergency conservation regulations, TCPUD did not experience a conservation based decrease in revenue significant enough to result in revenue enhancement or cost savings measures being implemented.

8.8.1 Drought Rate Structures and Surcharges

The TCPUD's water rates and charges does not include drought rate structures or surcharges.

8.8.2 Use of Financial Reserves

The TCPUD has operating and capital reserves funds established that can be utilized for a financially qualifying event, such as providing for the continued operation of the water system in the event of a decline in water service revenue.

8.8.3 Other Measures

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

8.9 Monitoring and Reporting

The Tahoe City Main, Rubicon, McKinney/Quail, Alpine Peaks, Tahoe-Truckee Forest Tract systems, and Timberland water systems are metered and customers are billed volumetrically. The TCPUD uses these meters to monitor service area use, individual customer use, and track actual reductions in water use. By periodic review of customer water use, the TCPUD is able to track the effectiveness of the shortage level reduction actions, educate customers regarding water use, and also identify leaks and other areas where additional conservation may be possible.

Monitoring will be used to ensure appropriate data is collected, tracked, and analyzed for purposes of determining:

- Customer compliance.
- Effectiveness of reduction actions.
- Potential leaks in the distribution system.
- Accurate monthly demand data for the annual supply and demand assessment.

Monitoring and reporting key water use metrics is fundamental to water supply planning and management and will be a critical part of the annual supply and demand assessment. Monitoring is also essential to ensure that the shortage level response actions achieve their intended water use reduction purposes or to determine if improvements or new actions are needed. Monitoring for customer compliance tracking is useful in enforcement actions. It should be noted that timing, frequency, and metrics will likely be variable, depending on the water shortage level and enforcement action logistics.

The TCPUD can compare meter data with water use in prior months and during non-drought years to determine if it is achieving specific percentage goals for water consumption associated with the drought response levels. If the goals are not being met, the TCPUD can implement additional shortage response actions at any time.

8.10 WSCP Refinement Procedures

To evaluate the effectiveness of the WSCP and to ensure that procedures and practices developed under the WSCP are adequate and are being implemented properly, the TCPUD will perform audits of the program on a periodic basis, at least every five years in coordination with the UWMP update.

The TCPUD will perform a thorough review of monitoring and reporting program data to determine the effectiveness of the reduction actions and whether the procedures and provisions of the WSCP need to be revised. The review will compare the expected percent demand reduction against actual reductions and shortage response actions.

TCPUD staff, customers, and other interested parties may have suggested actions or procedures to refine the WSCP. The TCPUD will evaluate these on a case-by-case basis for incorporation into the WSCP.

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Chapter 9

DEMAND MANAGEMENT MEASURES

The UWMPA requires that the UWMP involve a comprehensive discussion of the agency's water conservation measures.

> *10631 (f)(A)… The narrative shall describe the water demand management measure that the supplier plans to implement to achieve its water use targets pursuant to Section 10608.30.*
>
> *(B) The narrative pursuant to this paragraph shall include descriptions of the following water demand management measures:*
>
> *(i) Water waste prevention ordinances*
>
> *(ii) Metering*
>
> *(iii) Conservation pricing*
>
> *(iv) Public education and outreach*
>
> *(v) Programs to assess and manage distribution system real loss*
>
> *(vi) Water conservation program coordination and staffing support.*
>
> *(vii) Other demand management measures that have a significant impact on water use as measured in gallons per capita per day, including innovative measure, if implemented.*

9.1 Water Waste Prevention Ordinances

This DMM involves adoption of an ordinance prohibiting water waste. The TCPUD adopted Ordinance 304, "Water Conservation and Drought Response Standards," contains the Water Waste Prevention Ordinance (Section 1.03) (see Appendix H). This Water Waste Prevention Ordinance is in place at all times and is not dependent upon a water shortage for implementation. See Chapter 8 and the Water Conservation and Drought Response Standards Ordinance (Appendix H) for detailed information on stages of action, prohibitions of end uses, and penalties.

9.1.1 Implementation over the Past Five Years

The TCPUD has not issued any warnings or violations over the past five years.

9.1.2 Planned Implementation

The TCPUD will continue to enforce this DMM. The effectiveness of this DMM will be evaluated by monitoring the number of warnings and violations. If an area is determined to have excessive violations, the TCPUD may implement a specific public outreach program informing the public about the Water Waste Prevention Ordinance.

9.2 Metering

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

9.2.1 Implementation over the Past Five Years

The TCPUD customers within the Tahoe City Main, Rubicon, McKinney/Quail, Alpine Peaks, and Tahoe-Truckee Forest Tract systems are metered. The TCPUD has an automatic meter reading (AMR) system that reads monthly and more frequently as needed. The TCPUD implemented a successful cellular based advanced metering infrastructure (AMI) technology pilot program. The TCPUD currently has 381 cellular AMI units in service and plans to convert to full AMI by 2024.

The TCPUD acquired the Madden Creek, Tahoe Cedars, and Timberland water systems in January 2018. The Timberland water system is metered as of January 2021. Refer to Appendix E for capital improvement plans to meter the Madden Creek and Tahoe Cedars systems.

9.2.2 Planned Implementation

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

9.3 Conservation Pricing

Water conservation is encouraged through a tiered pricing system that was developed using a Cost of Service Analysis and adopted through a Proposition 218 process in 2019. See Appendix I for current Water and Sewer Rate Schedules.

9.3.1 Implementation over the Past Five Years

The TCPUD has an increasing-tier water rate schedule. These metered water rates consist of a monthly rate based on meter size as well as a rate per 1,000 gallons based on usage (see Appendix I). Tahoe Cedars and Madden Creek system customers have a separate water rate schedule from the remainder of the District water customers. For unmetered customers, there is a flat monthly rate.

The TCPUD bills residential and commercial customers for sewer service on a flat rate schedule (see Appendix I).

9.3.2 Planned Implementation

Water and sewer rates are approved through calendar year 2024. The water and sewer rates will continue to be in effect until new rates are adopted.

9.4 Public Education and Outreach

Examples for public education and outreach for water demand management can include coordination with other agencies and provision of programs promoting water conservation, speakers for the media or community groups, school education programs, public service announcements, water conservation bill inserts, information booths at public events, websites, newsletters and newspaper articles, rebates, and daily water use comparisons on customer's bills.

9.4.1 Implementation over the Past Five Years

The TCPUD has implemented this DMM through the following measures:

- Providing water conservation information on the TCPUD's website (www.tcpud.org/conservation).
- Providing an online calculator for customers to calculate their total monthly water bill based on meter size and monthly total water consumption (www.tcpud.org/calculatewaterbill).
- Including articles on water conservation in quarterly and annual newsletters to customers.
- Providing water conservation information to local nurseries, including recommended drip irrigation systems and drought resistant plants.
- Providing water conservation information at homeowner's association meetings and to local service organizations, such as Rotary International, Resort Associations, Kiwanis, and others, upon request.
- Supplying free water conservation kits, which include low flow showerheads and faucet aerators, and shutoff valves and nozzles for outdoor water use.
- Contracting with the Sierra Watershed Education Partnership (SWEP) to provide a conservation, education, and outreach program in schools. The TCPUD donated between $2,000 to $2,500 to SWEP annually from 2016 to 2019.
- Hosting a conservation education booth at an Earth Day event from 2016 to 2019. The event was cancelled in 2020.

9.4.2 Planned Implementation

Public information can be one of the best tools to conserve water. The TCPUD will continue to promote water conservation.

9.5 Programs to Assess and Manage Distribution System Real Loss

This DMM focuses on the water distribution system itself, and includes water audits, leak detection, and repair. The first step in a water audit is relatively straightforward, involving comparison of the amount of water produced with the amount of water delivered to customers. The difference is termed "unaccounted water," which includes actual losses (leaks) in the distribution system, authorized but unmetered use (e.g., hydrant flushing and firefighting), unauthorized water use, and meter error.

9.5.1 Implementation over the Past Five Years

The TCPUD performs monthly and annual AWWA water audits for the four metered systems (Tahoe City Main, Rubicon, McKinney/Quail, and Alpine Peaks).

The TCPUD AMR system monitors customer meter accounts for potential leaks. For any accounts with potential leaks, the TCPUD's accounting program will include a flag on the monthly billing statement as well as information on how to correct leaks. The TCPUD will also mail "notice to repair" letters when leaks are not corrected in a timely manner. The TCPUD takes swift action to investigate any accounts with significant potential leaks and repairs reported or suspected leaks as warranted.

The TCPUD also has an active annual leak detection survey and pipe replacement program. Annual leak detection surveys are performed by a hired consultant and the TCPUD prioritizes pipe replacement according to the results of the leak detection surveys.

The TCPUD repaired 32 service connection breaks/leaks and 43 main breaks/leaks in 2020. In 2016 to 2020, the District installed approximately 11,000 feet of replacement pipeline (primarily in Timberland service area) and replaced approximately 150 polybutylene water services in the Rubicon service area. The leak detection survey budget (not including pipe replacement or repair) over the past five years is reported in Table 9-1.

Table 9-1: Leak Detection Survey Program Budget Over Past Five Years

Year	Program Budget
2016	$10,000
2017	$10,000
2018	$15,000
2019	$15,000
2020	$20,000

9.5.2 Planned Implementation

The TCPUD acquired the Madden Creek, Tahoe Cedars, and Timberland water systems in January 2018. The Timberland water system is metered as of January 2021. Refer to Appendix E for capital improvement plans to meter the Madden Creek and Tahoe Cedars systems. The TCPUD will perform monthly and annual AWWA water audits of these systems when fully metered.

9.6 Water Conservation Program Coordination and Staffing Support

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

9.6.1 Implementation over the Past Five Years

The TCPUD has designated Water Conservation Coordinators (Kris Vickers, kvickers@tcpud.org and Kim Boyd, kboyd@tcpud.org) that supervise DMM implementation, evaluate effectiveness, and communicate program goals to the community. The water conservation program budget over the past five years (not including the leak detection budget previously discussed) is reported in Table 9-2.

Table 9-2: Water Conservation Program Budget Over Past Five Years	
Year	Program Budget
2016	$17,250
2017	$14,750
2018	$14,750
2019	$14,750
2020	$14,750

9.6.2 Planned Implementation

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

9.7 Other Demand Management Measures

9.7.1 Conservation Inspection Program

The TCPUD offers conservation inspections of new construction, reconstruction, and remodel. The TCPUD has performed approximately 432 conservation inspections over the past five years.

9.7.2 Low-Flow Plumbing Fixtures

See the Water Conservation and Drought Response Standards Ordinance Section 2.01.9 (Appendix H) for detailed information on low-flow plumbing fixtures requirements for new construction or remodel.

9.7.3 Water Efficiency Rebates

The TCPUD manages a water efficiency rebate program (www.tcpud.org/waterrebates) and offers rebates for high-efficiency toilets, dishwashers, clothes washers, and smart irrigation sensors and devices (rain sensors, soil moisture sensors, and temperature sensing gauges). The TCPUD has processed 177 rebates for a total amount over $15,000 over the past five years.

9.8 Planned Implementation to Achieve Water Use Targets

The TCPUD has met their 2020 target of 236 gpcd. If the TCPUD can maintain water consumption rates, it will maintain conservation goals.

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Chapter 10

PLAN ADOPTION, SUBMITTAL, AND IMPLEMENTATION

The TCPUD prepared this 2020 UWMP during the fall of 2021 and winter of 2021-2022. A completed UWMP checklist is included in Appendix J.

10.1 Inclusion of All 2020 Data

The 2020 UWMPs must include the water use and planning data for the entire year of 2020. The TCPUD is reporting on a calendar year basis and therefore, 2020 data includes the months of January to December 2020.

10.2 Notice of Public Hearing

A public hearing was held on February 18, 2022, prior to adoption of the UWMP at the TCPUD's Office at 221 Fairway Drive, Tahoe City, California. Notices were provided to cities and counties, and the public. The public hearing provided an opportunity for the public to provide input to the plan before it was adopted. Additionally, the public hearing provided an opportunity for the TCPUD's customers, residents, and employees to learn and ask questions about the current and future water supply of the TCPUD.

10.2.1 Notice to Cities and Counties

> *10621(b) Every urban water supplier required to prepare a plan shall... at least 60 days prior to the public hearing on the plan... notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan.*
>
> *10642... The urban water supplier shall provide notice of the time and place of hearing to any city or county within which the supplier provides water supplies. A privately owned water supplier shall provide an equivalent notice within its service area...*

The cities and counties to which the TCPUD provides water supplies, as shown in Table 10-1, were provided 60-day notification (prior to the public hearing) that the TCPUD was in the process of preparing the 2020 UWMP. The 60-day notification letters are included in Appendix A. The cities and counties were provided a notice of public hearing, including the time and location. The notice of public hearing to cities and counties is included in Appendix A.

Submittal Table 10-1 Retail: Notification to Cities and Counties		
City Name	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
County Name *Drop Down List*	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
Placer County	Yes	Yes
El Dorado County	Yes	Yes
NOTES: Placer County refers to the Department of Public Works and Department of Environmental Health. El Dorado County refers to the Facilities Department.		

10.2.2 Notice to the Public

> *10642… Prior to adopting a plan, the urban water supplier shall make the plan available for public inspection… Prior to the hearing, notice of the time and place of hearing shall be published within the jurisdiction of the publicly owned water supplier pursuant to Section 6066 of the Government Code…*

The UWMPA requires that the UWMP show the water agency solicited public participation. The notice to the public was included in a local newspaper as prescribed in Government Code 6066. This notice included the time and location of the public hearing, in addition to the location of where the UWMP was available for public inspection. The notice of public hearing to the public is included in Appendix A.

On January 28, 2022, and February 4, 2022, the TCPUD placed a notice in the Sierra Sun (local newspaper) stating that its UWMP was being updated and that a public hearing was to be conducted to address comments and concerns from members of the community. The notice stated that a public review period would be scheduled through February 18, 2022.

The Draft 2020 UWMP was available for public inspection at the TCPUD's Office front counter at 221 Fairway Drive, Tahoe City, California, as well as the TCPUD website (www.tcpud.org/water).

10.2.3 Notice to Agencies and Organizations

The following agencies and organizations were provided notice that the TCPUD was in the process of preparing the 2020 UWMP:

- NTPUD
- STPUD
- PCWA
- TDPUD
- OVPSD
- ASCWD
- EDWA

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

10.3 Public Hearing and Adoption

> *10642... Prior to adopting a plan, the urban water supplier shall hold a public hearing thereon.*
>
> *10608.26(a). In complying with this part, an urban retail water supplier shall conduct at least one public hearing to accomplish all of the following:*
>
> *(1) Allow community input regarding the urban retail water supplier's implementation plan for complying with this part.*
>
> *(2) Consider the economic impacts of the urban retail water supplier's implementation plan for complying with this part.*
>
> *(3) Adopt a method, pursuant to subdivision (b) of Section 10608.20 for determining its urban water use target.*
>
> *10642... After the hearing, the plan shall be adopted as prepared or as modified after the hearing.*

The plan was adopted by the TCPUD Board of Directors at a public hearing on February 18, 2022. The Adoption Resolution is included in Appendix K. The hearing provided an opportunity for the TCPUD's customers, residents, and employees to learn and ask questions about the current and future water supply of the TCPUD. At the hearing, the UWMP, water use targets, and conservation implementation plan were discussed.

10.3.1 Adoption

After the public hearing, the 2020 UWMP was adopted as prepared.

10.4 Plan Submittal

The public hearing will be followed by submittal of the UWMP to the California DWR, the California State Library, and Cities and Counties (see Commitment to Distribute in Appendix A).

10.4.1 Submission to DWR

The 2020 UWMP will be submitted to DWR within 30 days of adoption.

10.4.2 Electronic Data Submission

The 2020 UWMP, in addition to tabular data, will be submitted using water use efficiency (WUE) data submittal tool.

10.4.3 Submission to the California State Library

The 2020 UWMP will be submitted in CD or hardcopy format to the California State Library within 30 days of adoption.

10.4.4 Submission to Cities and Counties

The 2020 UWMP will be submitted in electronic format to cities and counties within 30 days of adoption.

10.5 Public Availability

Within 30 days of submitting the UWMP to DWR, the adopted UWMP will be available for public review during normal business hours at the TCPUD's Office front counter at 221 Fairway Drive, Tahoe City, California.

10.6 Amending and Adopted UWMP

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

Appendix A

OUTREACH DOCUMENTS

TAHOE CITY PUBLIC UTILITY DISTRICT

December 14, 2021

Truckee Donner Public Utility District
11570 Donner Pass Road
Truckee, CA 96161

Attention: Brian Wright

Subject: **Notice of Preparation of the 2020 Urban Water Management Plan**

Dear Brian Wright:

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

This letter is intended to notify your agency that the Tahoe City Public Utility District (District) is in process of preparing the 2020 Urban Water Management Plan (UWMP). This plan supports the District's long-term resource planning to ensure that adequate water supplies are available to meet existing and future water needs.

Based on the District's current schedule, we expect to have a public review draft of the 2020 UWMP available for review in January 2022 prior to adoption in February 2022. Your agency will receive a public hearing notice when the draft UWMP is available for public review.

If your agency would like to submit questions or comments or provide input to the District in anticipation of the development of the 2020 UWMP, please contact Tony Laliotis at 530.580.6053.

Sincerely,

TAHOE CITY PUBLIC UTILITY DISTRICT

Tony Laliotis
Director of Utilities

TAHOE CITY PUBLIC UTILITY DISTRICT

December 14, 2021

El Dorado County, Facilities Department
3000 Fairlane Court, Suite 1
Placerville, CA 95667

Attention: Charles Harrell

Subject: **Notice of Preparation of the 2020 Urban Water Management Plan**

Dear Charles Harrell:

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

This letter is intended to notify your agency that the Tahoe City Public Utility District (District) is in process of preparing the 2020 Urban Water Management Plan (UWMP). This plan supports the District's long-term resource planning to ensure that adequate water supplies are available to meet existing and future water needs.

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If your agency would like to submit questions or comments or provide input to the District in anticipation of the development of the 2020 UWMP, please contact Tony Laliotis at 530.580.6053.

Sincerely,

TAHOE CITY PUBLIC UTILITY DISTRICT

TML

Tony Laliotis
Director of Utilities

TAHOE CITY PUBLIC UTILITY DISTRICT

December 14, 2021

Olympic Valley Public Service District
PO Box 2026
Olympic Valley, CA 96146

Attention: Mike Geary

Subject: **Notice of Preparation of the 2020 Urban Water Management Plan**

Dear Mike Geary:

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

This letter is intended to notify your agency that the Tahoe City Public Utility District (District) is in process of preparing the 2020 Urban Water Management Plan (UWMP). This plan supports the District's long-term resource planning to ensure that adequate water supplies are available to meet existing and future water needs.

Based on the District's current schedule, we expect to have a public review draft of the 2020 UWMP available for review in January 2022 prior to adoption in February 2022. Your agency will receive a public hearing notice when the draft UWMP is available for public review.

If your agency would like to submit questions or comments or provide input to the District in anticipation of the development of the 2020 UWMP, please contact Tony Laliotis at 530.580.6053.

Sincerely,

TAHOE CITY PUBLIC UTILITY DISTRICT

Tony Laliotis
Director of Utilities

TAHOE CITY PUBLIC UTILITY DISTRICT

December 14, 2021

Placer County, Department of Public Works
3091 County Center Drive, Suite 220
Auburn, CA 95603

Attention: Peter Kraatz

Subject: **Notice of Preparation of the 2020 Urban Water Management Plan**

Dear Peter Kraatz:

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

This letter is intended to notify your agency that the Tahoe City Public Utility District (District) is in process of preparing the 2020 Urban Water Management Plan (UWMP). This plan supports the District's long-term resource planning to ensure that adequate water supplies are available to meet existing and future water needs.

Based on the District's current schedule, we expect to have a public review draft of the 2020 UWMP available for review in January 2022 prior to adoption in February 2022. Your agency will receive a public hearing notice when the draft UWMP is available for public review.

If your agency would like to submit questions or comments or provide input to the District in anticipation of the development of the 2020 UWMP, please contact Tony Laliotis at 530.580.6053.

Sincerely,

TAHOE CITY PUBLIC UTILITY DISTRICT

Tony Laliotis
Director of Utilities

TAHOE CITY PUBLIC UTILITY DISTRICT

December 14, 2021

South Tahoe Public Utility District
1275 Meadow Crest Drive
South Lake Tahoe, CA 96150

Attention: John Thiel

Subject: **Notice of Preparation of the 2020 Urban Water Management Plan**

Dear John Thiel:

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

This letter is intended to notify your agency that the Tahoe City Public Utility District (District) is in process of preparing the 2020 Urban Water Management Plan (UWMP). This plan supports the District's long-term resource planning to ensure that adequate water supplies are available to meet existing and future water needs.

Based on the District's current schedule, we expect to have a public review draft of the 2020 UWMP available for review in January 2022 prior to adoption in February 2022. Your agency will receive a public hearing notice when the draft UWMP is available for public review.

If your agency would like to submit questions or comments or provide input to the District in anticipation of the development of the 2020 UWMP, please contact Tony Laliotis at 530.580.6053.

Sincerely,

TAHOE CITY PUBLIC UTILITY DISTRICT

Tony Laliotis
Director of Utilities

TAHOE CITY PUBLIC UTILITY DISTRICT

December 14, 2021

Alpine Springs County Water District
270 Alpine Meadows Road
Alpine Meadows, CA 96146

Attention: Joe Mueller

Subject: **Notice of Preparation of the 2020 Urban Water Management Plan**

Dear Joe Mueller:

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

This letter is intended to notify your agency that the Tahoe City Public Utility District (District) is in process of preparing the 2020 Urban Water Management Plan (UWMP). This plan supports the District's long-term resource planning to ensure that adequate water supplies are available to meet existing and future water needs.

Based on the District's current schedule, we expect to have a public review draft of the 2020 UWMP available for review in January 2022 prior to adoption in February 2022. Your agency will receive a public hearing notice when the draft UWMP is available for public review.

If your agency would like to submit questions or comments or provide input to the District in anticipation of the development of the 2020 UWMP, please contact Tony Laliotis at 530.580.6053.

Sincerely,

TAHOE CITY PUBLIC UTILITY DISTRICT

Tony Laliotis
Director of Utilities

TAHOE CITY PUBLIC UTILITY DISTRICT

December 14, 2021

North Tahoe Public Utility District
PO Box 139
Tahoe Vista, CA 96148

Attention: Bradley Johnson

Subject: **Notice of Preparation of the 2020 Urban Water Management Plan**

Dear Bradley Johnson:

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

This letter is intended to notify your agency that the Tahoe City Public Utility District (District) is in process of preparing the 2020 Urban Water Management Plan (UWMP). This plan supports the District's long-term resource planning to ensure that adequate water supplies are available to meet existing and future water needs.

Based on the District's current schedule, we expect to have a public review draft of the 2020 UWMP available for review in January 2022 prior to adoption in February 2022. Your agency will receive a public hearing notice when the draft UWMP is available for public review.

If your agency would like to submit questions or comments or provide input to the District in anticipation of the development of the 2020 UWMP, please contact Tony Laliotis at 530.580.6053.

Sincerely,

TAHOE CITY PUBLIC UTILITY DISTRICT

Tony Laliotis
Director of Utilities

TAHOE CITY PUBLIC UTILITY DISTRICT

December 14, 2021

El Dorado Water Agency
4330 Golden Center Drive Suite C
Placerville, CA 95667

Attention: Kenneth Payne, P.E.

Subject: **Notice of Preparation of the 2020 Urban Water Management Plan**

Dear Kenneth Payne, P.E.:

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

This letter is intended to notify your agency that the Tahoe City Public Utility District (District) is in process of preparing the 2020 Urban Water Management Plan (UWMP). This plan supports the District's long-term resource planning to ensure that adequate water supplies are available to meet existing and future water needs.

Based on the District's current schedule, we expect to have a public review draft of the 2020 UWMP available for review in January 2022 prior to adoption in February 2022. Your agency will receive a public hearing notice when the draft UWMP is available for public review.

If your agency would like to submit questions or comments or provide input to the District in anticipation of the development of the 2020 UWMP, please contact Tony Laliotis at 530.580.6053.

Sincerely,

TAHOE CITY PUBLIC UTILITY DISTRICT

Tony Laliotis
Director of Utilities

TAHOE CITY PUBLIC UTILITY DISTRICT

December 14, 2021

Placer County, Department of Environmental Health
3091 County Center Drive, Suite 180
Auburn, CA 95603

Attention: To Whom It May Concern

Subject: **Notice of Preparation of the 2020 Urban Water Management Plan**

To Whom It May Concern:

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

This letter is intended to notify your agency that the Tahoe City Public Utility District (District) is in process of preparing the 2020 Urban Water Management Plan (UWMP). This plan supports the District's long-term resource planning to ensure that adequate water supplies are available to meet existing and future water needs.

Based on the District's current schedule, we expect to have a public review draft of the 2020 UWMP available for review in January 2022 prior to adoption in February 2022. Your agency will receive a public hearing notice when the draft UWMP is available for public review.

If your agency would like to submit questions or comments or provide input to the District in anticipation of the development of the 2020 UWMP, please contact Tony Laliotis at 530.580.6053.

Sincerely,

TAHOE CITY PUBLIC UTILITY DISTRICT

Tony Laliotis
Director of Utilities

TAHOE CITY PUBLIC UTILITY DISTRICT

December 14, 2021

Placer County Water Agency
PO Box 6570
Auburn, CA 95604

Attention: Andy Fecko

Subject: **Notice of Preparation of the 2020 Urban Water Management Plan**

Dear Andy Fecko:

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

This letter is intended to notify your agency that the Tahoe City Public Utility District (District) is in process of preparing the 2020 Urban Water Management Plan (UWMP). This plan supports the District's long-term resource planning to ensure that adequate water supplies are available to meet existing and future water needs.

Based on the District's current schedule, we expect to have a public review draft of the 2020 UWMP available for review in January 2022 prior to adoption in February 2022. Your agency will receive a public hearing notice when the draft UWMP is available for public review.

If your agency would like to submit questions or comments or provide input to the District in anticipation of the development of the 2020 UWMP, please contact Tony Laliotis at 530.580.6053.

Sincerely,

TAHOE CITY PUBLIC UTILITY DISTRICT

Tony Laliotis
Director of Utilities

TAHOE CITY PUBLIC UTILITY

January 21, 2022

Alpine Springs County Water District
270 Alpine Meadows Road
Alpine Meadows, CA 96146

Attention: Joe Mueller

Subject: **Public Hearing Notice**

Dear Joe Mueller:

As permitted by AB 361, the meeting room is not accessible to the public. This meeting will be conducted exclusively through video and teleconference.

Notice is hearby given that the Board of Directors of the Tahoe City Public Utility District (TCPUD) is considering the adoption of an Urban Water Management Plan and updated Water Conservation and Drought Response Standards Ordinance. A copy of the 2020 Urban Water Management Plan and Water Conservation and Drought Response Standards Ordinance is available at the TCPUD office, at the address below and on the website: www.tcpud.org/water. On 2/18/2022, the TCPUD Board of Directors will hold a public hearing during their regular meeting at 8:30 AM, or as soon thereafter as possible, the TCPUD Board of Directors will receive public comment on the 2020 Urban Water Management Plan and Water Conservation and Drought Response Standards Ordinance. Interested parties are invited to express their views during the public hearing in written or oral form through Zoom Video Conference or to submit written views prior to the time of the public hearing, by regular mail at the address below or by email to: tviehmann@tcpud.org. The meeting Zoom link will be available on the TCPUD website at: www.tcpud.org/meetings the week of the meeting. Notice is further given that upon completion of said public hearing, the TCPUD Board of Directors will consider adopting the Plan and Ordinance as prepared or modified.

Sincerely,

TAHOE CITY PUBLIC UTILITY DISTRICT

Tony Laliotis
Director of Utilities

TAHOE CITY PUBLIC UTILITY

January 21, 2022

El Dorado County, Facilities Department
3000 Fairlane Court, Suite 1
Placerville, CA 95667

Attention: Charles Harrell

Subject: **Public Hearing Notice**

Dear Charles Harrell:

As permitted by AB 361, the meeting room is not accessible to the public. This meeting will be conducted exclusively through video and teleconference.

Notice is hearby given that the Board of Directors of the Tahoe City Public Utility District (TCPUD) is considering the adoption of an Urban Water Management Plan and updated Water Conservation and Drought Response Standards Ordinance. A copy of the 2020 Urban Water Management Plan and Water Conservation and Drought Response Standards Ordinance is available at the TCPUD office, at the address below and on the website: www.tcpud.org/water. On 2/18/2022, the TCPUD Board of Directors will hold a public hearing during their regular meeting at 8:30 AM, or as soon thereafter as possible, the TCPUD Board of Directors will receive public comment on the 2020 Urban Water Management Plan and Water Conservation and Drought Response Standards Ordinance. Interested parties are invited to express their views during the public hearing in written or oral form through Zoom Video Conference or to submit written views prior to the time of the public hearing, by regular mail at the address below or by email to: tviehmann@tcpud.org. The meeting Zoom link will be available on the TCPUD website at: www.tcpud.org/meetings the week of the meeting. Notice is further given that upon completion of said public hearing, the TCPUD Board of Directors will consider adopting the Plan and Ordinance as prepared or modified.

Sincerely,

TAHOE CITY PUBLIC UTILITY DISTRICT

Tony Laliotis
Director of Utilities

TAHOE CITY PUBLIC UTILITY

January 21, 2022

El Dorado Water Agency
4330 Golden Center Drive, Suite C
Placerville, CA 95667

Attention: Kenneth Payne, P.E.

Subject: **Public Hearing Notice**

Dear Kenneth Payne, P.E.:

As permitted by AB 361, the meeting room is not accessible to the public. This meeting will be conducted exclusively through video and teleconference.

Notice is hearby given that the Board of Directors of the Tahoe City Public Utility District (TCPUD) is considering the adoption of an Urban Water Management Plan and updated Water Conservation and Drought Response Standards Ordinance. A copy of the 2020 Urban Water Management Plan and Water Conservation and Drought Response Standards Ordinance is available at the TCPUD office, at the address below and on the website: www.tcpud.org/water. On 2/18/2022, the TCPUD Board of Directors will hold a public hearing during their regular meeting at 8:30 AM, or as soon thereafter as possible, the TCPUD Board of Directors will receive public comment on the 2020 Urban Water Management Plan and Water Conservation and Drought Response Standards Ordinance. Interested parties are invited to express their views during the public hearing in written or oral form through Zoom Video Conference or to submit written views prior to the time of the public hearing, by regular mail at the address below or by email to: tviehmann@tcpud.org. The meeting Zoom link will be available on the TCPUD website at: www.tcpud.org/meetings the week of the meeting. Notice is further given that upon completion of said public hearing, the TCPUD Board of Directors will consider adopting the Plan and Ordinance as prepared or modified.

Sincerely,

TAHOE CITY PUBLIC UTILITY DISTRICT

TNL

Tony Laliotis
Director of Utilities

TAHOE CITY PUBLIC UTILITY

January 21, 2022

North Tahoe Public Utility District
PO Box 139
Tahoe Vista, CA 96148

Attention: Bradley Johnson

Subject: **Public Hearing Notice**

Dear Bradley Johnson:

As permitted by AB 361, the meeting room is not accessible to the public. This meeting will be conducted exclusively through video and teleconference.

Notice is hearby given that the Board of Directors of the Tahoe City Public Utility District (TCPUD) is considering the adoption of an Urban Water Management Plan and updated Water Conservation and Drought Response Standards Ordinance. A copy of the 2020 Urban Water Management Plan and Water Conservation and Drought Response Standards Ordinance is available at the TCPUD office, at the address below and on the website: www.tcpud.org/water. On 2/18/2022, the TCPUD Board of Directors will hold a public hearing during their regular meeting at 8:30 AM, or as soon thereafter as possible, the TCPUD Board of Directors will receive public comment on the 2020 Urban Water Management Plan and Water Conservation and Drought Response Standards Ordinance. Interested parties are invited to express their views during the public hearing in written or oral form through Zoom Video Conference or to submit written views prior to the time of the public hearing, by regular mail at the address below or by email to: tviehmann@tcpud.org. The meeting Zoom link will be available on the TCPUD website at: www.tcpud.org/meetings the week of the meeting. Notice is further given that upon completion of said public hearing, the TCPUD Board of Directors will consider adopting the Plan and Ordinance as prepared or modified.

Sincerely,

TAHOE CITY PUBLIC UTILITY DISTRICT

TML

Tony Laliotis
Director of Utilities

TAHOE CITY PUBLIC UTILITY

January 21, 2022

Olympic Valley Public Service District
PO Box 2026
Olympic Valley, CA 96146

Attention: Mike Geary

Subject: **Public Hearing Notice**

As permitted by AB 361, the meeting room is not accessible to the public. This meeting will be conducted exclusively through video and teleconference.

Notice is hearby given that the Board of Directors of the Tahoe City Public Utility District (TCPUD) is considering the adoption of an Urban Water Management Plan and updated Water Conservation and Drought Response Standards Ordinance. A copy of the 2020 Urban Water Management Plan and Water Conservation and Drought Response Standards Ordinance is available at the TCPUD office, at the address below and on the website: www.tcpud.org/water. On 2/18/2022, the TCPUD Board of Directors will hold a public hearing during their regular meeting at 8:30 AM, or as soon thereafter as possible, the TCPUD Board of Directors will receive public comment on the 2020 Urban Water Management Plan and Water Conservation and Drought Response Standards Ordinance. Interested parties are invited to express their views during the public hearing in written or oral form through Zoom Video Conference or to submit written views prior to the time of the public hearing, by regular mail at the address below or by email to: tviehmann@tcpud.org. The meeting Zoom link will be available on the TCPUD website at: www.tcpud.org/meetings the week of the meeting. Notice is further given that upon completion of said public hearing, the TCPUD Board of Directors will consider adopting the Plan and Ordinance as prepared or modified.

Sincerely,

TAHOE CITY PUBLIC UTILITY DISTRICT

TMC

Tony Laliotis
Director of Utilities

TAHOE CITY PUBLIC UTILITY

January 21, 2022

Placer County Water Agency
PO Box 6570
Auburn, CA 95604

Attention: Andy Fecko

Subject: **Public Hearing Notice**

Dear Andy Fecko:

As permitted by AB 361, the meeting room is not accessible to the public. This meeting will be conducted exclusively through video and teleconference.

Notice is hearby given that the Board of Directors of the Tahoe City Public Utility District (TCPUD) is considering the adoption of an Urban Water Management Plan and updated Water Conservation and Drought Response Standards Ordinance. A copy of the 2020 Urban Water Management Plan and Water Conservation and Drought Response Standards Ordinance is available at the TCPUD office, at the address below and on the website: www.tcpud.org/water. On 2/18/2022, the TCPUD Board of Directors will hold a public hearing during their regular meeting at 8:30 AM, or as soon thereafter as possible, the TCPUD Board of Directors will receive public comment on the 2020 Urban Water Management Plan and Water Conservation and Drought Response Standards Ordinance. Interested parties are invited to express their views during the public hearing in written or oral form through Zoom Video Conference or to submit written views prior to the time of the public hearing, by regular mail at the address below or by email to: tviehmann@tcpud.org. The meeting Zoom link will be available on the TCPUD website at: www.tcpud.org/meetings the week of the meeting. Notice is further given that upon completion of said public hearing, the TCPUD Board of Directors will consider adopting the Plan and Ordinance as prepared or modified.

Sincerely,

TAHOE CITY PUBLIC UTILITY DISTRICT

TML

Tony Laliotis
Director of Utilities

TAHOE CITY PUBLIC UTILITY

January 21, 2022

Placer County, Department of Environmental Health
3091 County Center Drive, Suite 180
Auburn, CA 95603

Attention: To Whom It May Concern

Subject: **Public Hearing Notice**

To Whom It May Concern:

As permitted by AB 361, the meeting room is not accessible to the public. This meeting will be conducted exclusively through video and teleconference.

Notice is hearby given that the Board of Directors of the Tahoe City Public Utility District (TCPUD) is considering the adoption of an Urban Water Management Plan and updated Water Conservation and Drought Response Standards Ordinance. A copy of the 2020 Urban Water Management Plan and Water Conservation and Drought Response Standards Ordinance is available at the TCPUD office, at the address below and on the website: www.tcpud.org/water. On 2/18/2022, the TCPUD Board of Directors will hold a public hearing during their regular meeting at 8:30 AM, or as soon thereafter as possible, the TCPUD Board of Directors will receive public comment on the 2020 Urban Water Management Plan and Water Conservation and Drought Response Standards Ordinance. Interested parties are invited to express their views during the public hearing in written or oral form through Zoom Video Conference or to submit written views prior to the time of the public hearing, by regular mail at the address below or by email to: tviehmann@tcpud.org. The meeting Zoom link will be available on the TCPUD website at: www.tcpud.org/meetings the week of the meeting. Notice is further given that upon completion of said public hearing, the TCPUD Board of Directors will consider adopting the Plan and Ordinance as prepared or modified.

Sincerely,

TAHOE CITY PUBLIC UTILITY DISTRICT

Tony Laliotis
Director of Utilities

TAHOE CITY PUBLIC UTILITY

January 21, 2022

Placer County, Department of Public Works
3091 County Center Drive, Suite 220
Auburn, CA 95603

Attention: Peter Kraatz

Subject: **Public Hearing Notice**

Dear Peter Kraatz:

As permitted by AB 361, the meeting room is not accessible to the public. This meeting will be conducted exclusively through video and teleconference.

Notice is hearby given that the Board of Directors of the Tahoe City Public Utility District (TCPUD) is considering the adoption of an Urban Water Management Plan and updated Water Conservation and Drought Response Standards Ordinance. A copy of the 2020 Urban Water Management Plan and Water Conservation and Drought Response Standards Ordinance is available at the TCPUD office, at the address below and on the website: www.tcpud.org/water. On 2/18/2022, the TCPUD Board of Directors will hold a public hearing during their regular meeting at 8:30 AM, or as soon thereafter as possible, the TCPUD Board of Directors will receive public comment on the 2020 Urban Water Management Plan and Water Conservation and Drought Response Standards Ordinance. Interested parties are invited to express their views during the public hearing in written or oral form through Zoom Video Conference or to submit written views prior to the time of the public hearing, by regular mail at the address below or by email to: tviehmann@tcpud.org. The meeting Zoom link will be available on the TCPUD website at: www.tcpud.org/meetings the week of the meeting. Notice is further given that upon completion of said public hearing, the TCPUD Board of Directors will consider adopting the Plan and Ordinance as prepared or modified.

Sincerely,

TAHOE CITY PUBLIC UTILITY DISTRICT

TML

Tony Laliotis
Director of Utilities

TAHOE CITY PUBLIC UTILITY

January 21, 2022

South Tahoe Public Utility District
1275 Meadow Crest Drive
South Lake Tahoe, CA 96150

Attention: John Thiel

Subject: **Public Hearing Notice**

Dear John Thiel:

As permitted by AB 361, the meeting room is not accessible to the public. This meeting will be conducted exclusively through video and teleconference.

Notice is hearby given that the Board of Directors of the Tahoe City Public Utility District (TCPUD) is considering the adoption of an Urban Water Management Plan and updated Water Conservation and Drought Response Standards Ordinance. A copy of the 2020 Urban Water Management Plan and Water Conservation and Drought Response Standards Ordinance is available at the TCPUD office, at the address below and on the website: www.tcpud.org/water. On 2/18/2022, the TCPUD Board of Directors will hold a public hearing during their regular meeting at 8:30 AM, or as soon thereafter as possible, the TCPUD Board of Directors will receive public comment on the 2020 Urban Water Management Plan and Water Conservation and Drought Response Standards Ordinance. Interested parties are invited to express their views during the public hearing in written or oral form through Zoom Video Conference or to submit written views prior to the time of the public hearing, by regular mail at the address below or by email to: tviehmann@tcpud.org. The meeting Zoom link will be available on the TCPUD website at: www.tcpud.org/meetings the week of the meeting. Notice is further given that upon completion of said public hearing, the TCPUD Board of Directors will consider adopting the Plan and Ordinance as prepared or modified.

Sincerely,

TAHOE CITY PUBLIC UTILITY DISTRICT

TML

Tony Laliotis
Director of Utilities

TAHOE CITY PUBLIC UTILITY

January 21, 2022

Truckee Donner Public Utility District
11570 Donner Pass Road
Truckee, CA 96161

Attention: Brian Wright

Subject: **Public Hearing Notice**

Dear Brian Wright:

As permitted by AB 361, the meeting room is not accessible to the public. This meeting will be conducted exclusively through video and teleconference.

Notice is hearby given that the Board of Directors of the Tahoe City Public Utility District (TCPUD) is considering the adoption of an Urban Water Management Plan and updated Water Conservation and Drought Response Standards Ordinance. A copy of the 2020 Urban Water Management Plan and Water Conservation and Drought Response Standards Ordinance is available at the TCPUD office, at the address below and on the website: www.tcpud.org/water. On 2/18/2022, the TCPUD Board of Directors will hold a public hearing during their regular meeting at 8:30 AM, or as soon thereafter as possible, the TCPUD Board of Directors will receive public comment on the 2020 Urban Water Management Plan and Water Conservation and Drought Response Standards Ordinance. Interested parties are invited to express their views during the public hearing in written or oral form through Zoom Video Conference or to submit written views prior to the time of the public hearing, by regular mail at the address below or by email to: tviehmann@tcpud.org. The meeting Zoom link will be available on the TCPUD website at: www.tcpud.org/meetings the week of the meeting. Notice is further given that upon completion of said public hearing, the TCPUD Board of Directors will consider adopting the Plan and Ordinance as prepared or modified.

Sincerely,

TAHOE CITY PUBLIC UTILITY DISTRICT

Tony Laliotis
Director of Utilities

NEVADA COUNTY PUBLISHING COMPANY
South Lake Tahoe, CA

AFFIDAVIT OF PUBLICATION

Proof and Statement of Publication

Ad #: 197423

See Proof on Next Page

Customer Account #:
Reference: 4CD01 PH AB 361-2020 UWMP

Legal Account
Wendy Murphy
PO Box 5249

County of Nevada, State of California. The undersigned, **Bailee Liston**, being the principal clerk of the **Nevada County Publishing Co.** declares that the **Nevada County Publishing Co.** now is, and during all times herein named, was a corporation duly organized and existing under the laws of the State of California, and now is, and during all times herein named was the printer of **The Sierra Sun**, a newspaper of general circulation, as defined by section 6000 of the Government Code of the State of California, printed and published daily (Sundays excepted) in the City of Truckee, County of Nevada, State of California, and that affiant is the principal clerk of said Nevada County Publishing Co.
That the printed advertisement hereto annexed was published in the said The Sierra Sun, for the full required period of **2** time(s) commencing on **28 Jan 2022,** and ending on **4 Feb 2022,** all days inclusive.

I certify, under penalty of perjury, the forgoing is true and correct.

Signed: Bailee Liston

Legals Advertising Clerk

NOTICE OF PUBLIC REVIEW PERIOD AND PUBLIC HEARING ON THE TAHOE CITY PUBLIC UTILITY DISTRICT 2020 URBAN WATER MANAGEMENT PLAN AND WATER CONSERVATION AND DROUGHT RESPONSE STANDARDS ORDINANCE

As Permitted by AB 361, the meeting room is not accessible to the public. This meeting will be conducted exclusively through video and teleconference.

NOTICE IS HEREBY GIVEN that the Board of Directors of the Tahoe City Public Utility District (TCPUD) is considering the adoption of an Urban Water Management Plan and updated Water Conservation and Drought Response Standards Ordinance. A copy of the 2020 Urban Water Management Plan and Water Conservation and Drought Response Standards Ordinance is available at the TCPUD office, at the address and website below. On 2/18/2022, the TCPUD Board of Directors will hold a public hearing during their regular meeting at 8:30 AM, or as soon thereafter as possible, the TCPUD Board of Directors will receive public comment on the 2020 Urban Water Management Plan and Water Conservation and Drought Response Standards Ordinance. Interested parties are invited to express their views during the public hearing in written or oral form through Zoom video conference or to submit written views prior to the time of the public hearing, by regular mail at the address below or by email to: tviehmann@tcpud.org. The meeting Zoom link will be available on the TCPUD website at: www.tcpud.org/me etings the week of the meeting. Notice is further given that upon completion of said public hearing, the TCPUD Board of Directors will consider adopting the Plan and Ordinance as prepared or modified. Terri Viehmann, District Clerk TAHOE CITY PUBLIC UTILITY DISTRICT 221 Fairway Drive P.O. Box 5249 Tahoe City, CA 96145 (530) 580-6052 http://www.tcpud .org/water

Published: January 28, February 4, 2022

Commitment to Distribute the 2020 Urban Water Management Plan (UWMP)

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

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

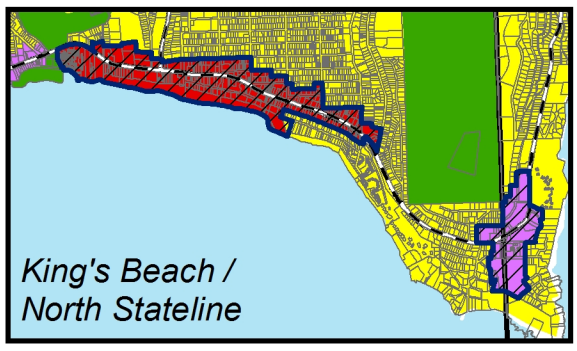
- Part 10644(a), requiring documentation that within 30 days of submitting the UWMP to DWR, the adopted UWMP has been or will be submitted to the California State Library and any city or county to which the supplier provides water.
- Part 10645, requiring documentation that the supplier will make the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

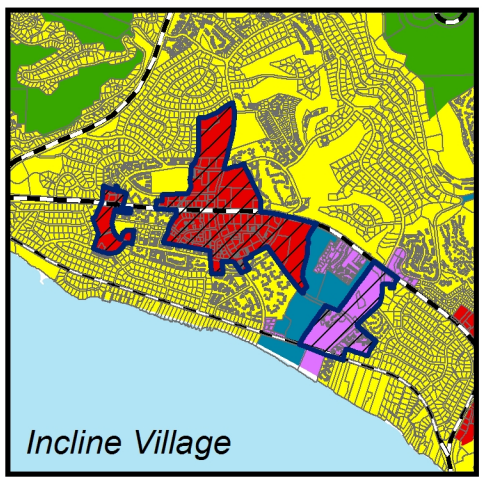
In order to satisfy these requirements, the TCPUD will perform the following actions:

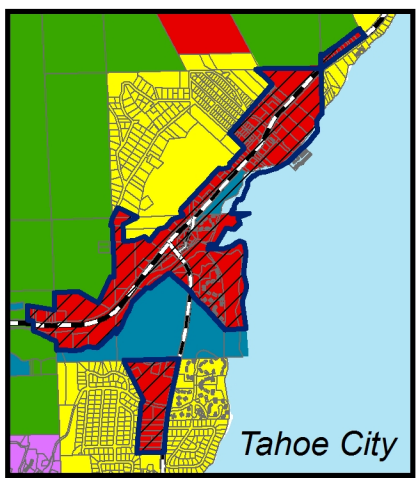
- The TCPUD will submit its 2020 UWMP to DWR.
- The TCPUD will send a printed or electronic copy of its 2020 UWMP to the California State Library and to the cities and counties within which it provides water. The TCPUD will do this within 30 days from filing with DWR.
- The TCPUD will make their 2020 UWMP available for public review within 30 days from filing with DWR.

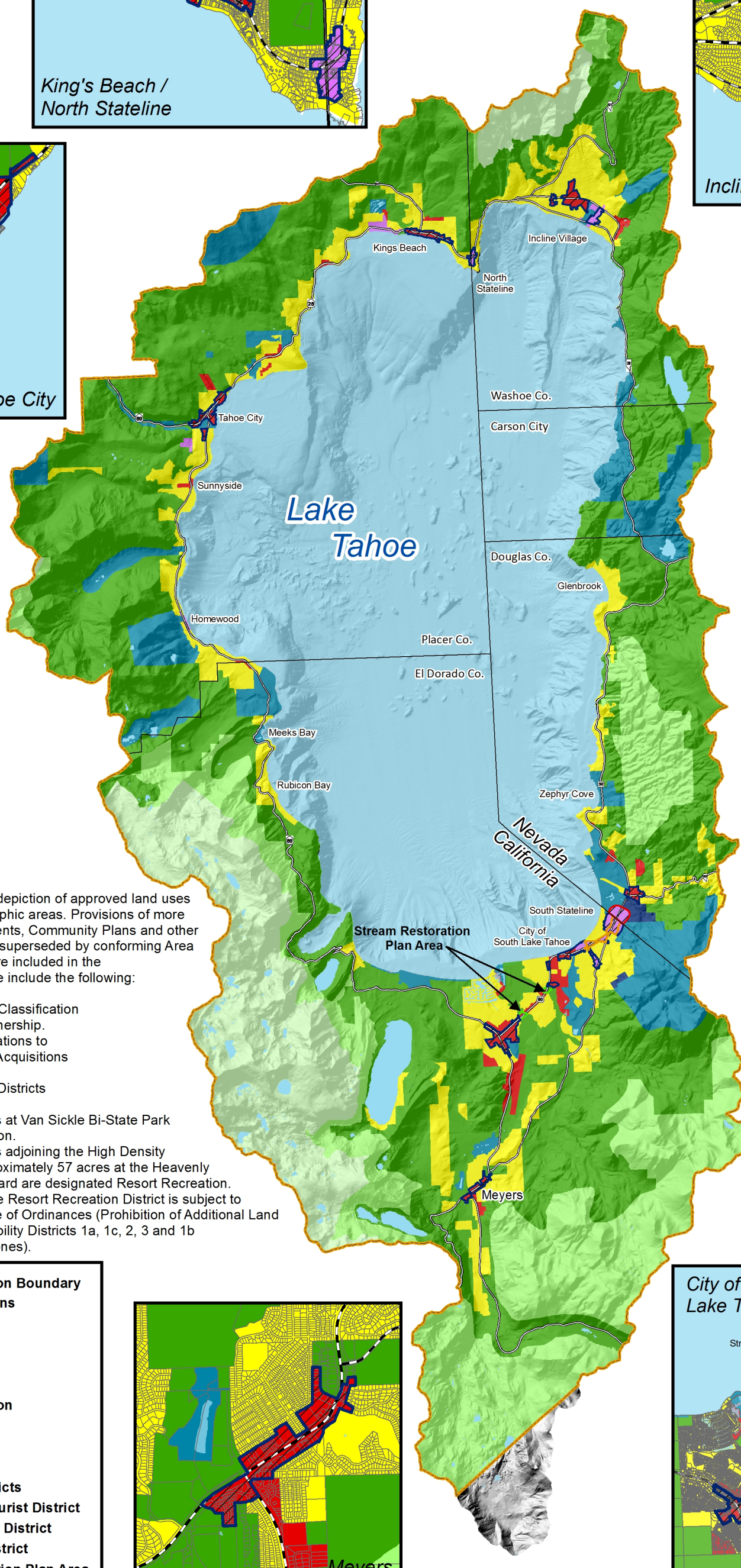
Appendix B

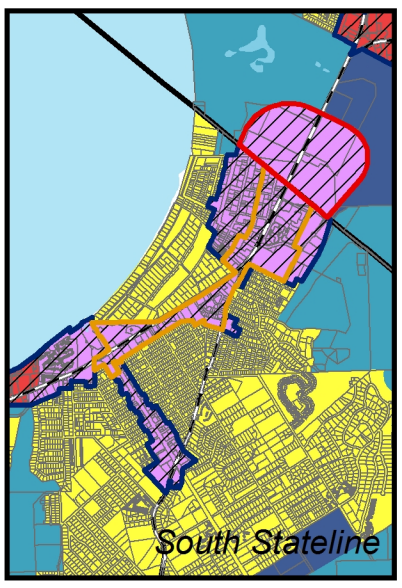
REGIONAL PLAN LAND USE MAP











This map is a generalized depiction of approved land uses in plans for specific geographic areas. Provisions of more detailed Plan Area Statements, Community Plans and other adopted plans prevail until superseded by conforming Area Plans. Amendments that are included in the 2012 Regional Plan Update include the following:

1. Amended Conservation Classification to Recognize USFS Ownership.
2. Minor Boundary Modifications to Recognize Public Land Acquisitions by USFS, CA and NV.
3. Recognize Commercial Districts as Mixed-Use Areas.
4. Approximately 477 acres at Van Sickle Bi-State Park are designated Recreation.
5. Approximately 250 acres adjoining the High Density Tourist District and approximately 57 acres at the Heavenly base on Ski Run Boulevard are designated Resort Recreation. Land coverage within the Resort Recreation District is subject to Section 30.5 of the Code of Ordinances (Prohibition of Additional Land Coverage in Land Capability Districts 1a, 1c, 2, 3 and 1b (Stream Environment Zones).

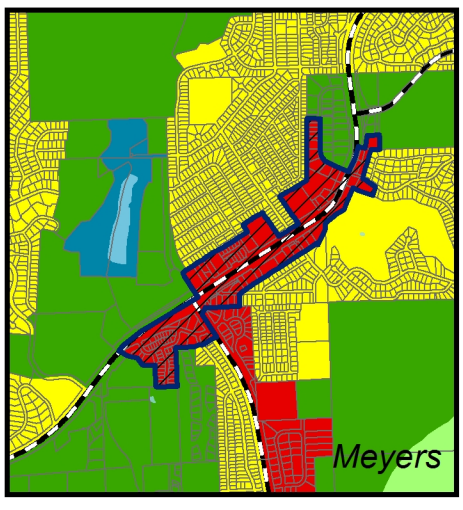
TRPA Jurisdiction Boundary

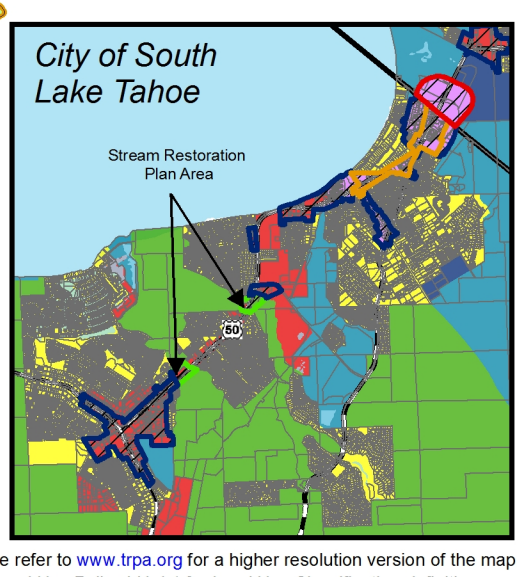
Land Use Classifications

- Wilderness
- Backcountry
- Conservation
- Recreation
- Resort Recreation
- Residential
- Mixed-Use
- Tourist

Special Planning Districts

- High Density Tourist District
- Regional Center District
- Town Center District
- Stream Restoration Plan Area





Note: Please refer to www.trpa.org for a higher resolution version of the map
See Land Use Policy LU-4.1 for Land Use Classification definitions

TAHOE REGIONAL PLANNING AGENCY

Map 1
Conceptual Regional Land Use
December 12, 2012

0 1.25 2.5 5 Miles

Appendix C

AWWA WATER AUDITS

Tahoe City Main

AWWA Free Water Audit Software: Reporting Worksheet

WAS v5.0

? Click to access definition
+ Click to add a comment

Water Audit Report for: Tahoe City Public Utility District (CA3110010)
Reporting Year: 2020 1/2020 - 12/2020

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

WATER SUPPLIED

<---------- Enter grading in column 'E' and 'J' ---------->

	Grading	Value		Master Meter and Supply Error Adjustments: Pcnt	Value	
Volume from own sources:	3	316.458	MG/Yr			MG/Yr
Water imported:	n/a	0.000	MG/Yr			MG/Yr
Water exported:	3	26.119	MG/Yr	4		MG/Yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: 290.339 MG/Yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

	Grading	Value		Pcnt	Value	
Billed metered:	8	275.383	MG/Yr			
Billed unmetered:	n/a	0.000	MG/Yr			
Unbilled metered:	7	2.350	MG/Yr			
Unbilled unmetered:		3.629	MG/Yr	1.25%		MG/Yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

AUTHORIZED CONSUMPTION: 281.362 MG/Yr

Use buttons to select percentage of water supplied OR value

WATER LOSSES (Water Supplied - Authorized Consumption) 8.977 MG/Yr

Apparent Losses

	Grading	Value		Pcnt	Value	
Unauthorized consumption:		0.726	MG/Yr	0.25%		MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

	Grading	Value		Pcnt	Value	
Customer metering inaccuracies:	3	0.222	MG/Yr	0.08%		MG/Yr
Systematic data handling errors:		0.688	MG/Yr	0.25%		MG/Yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: 1.637 MG/Yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 7.340 MG/Yr

WATER LOSSES: 8.977 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 14.956 MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

	Grading	Value	
Length of mains:	7	39.4	miles
Number of active AND inactive service connections:	5	3,207	
Service connection density:		81	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line: (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

	Grading	Value	
Average operating pressure:	6	75.0	psi

COST DATA

	Grading	Value		
Total annual cost of operating water system:	10	$3,485,113	$/Year	
Customer retail unit cost (applied to Apparent Losses):	9	$4.14	$/1000 gallons (US)	
Variable production cost (applied to Real Losses):	8	$467.38	$/Million gallons	☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 56 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Customer metering inaccuracies
3: Unauthorized consumption

Rubicon

AWWA Free Water Audit Software: Reporting Worksheet

WAS v5.0

? Click to access definition
+ Click to add a comment

Water Audit Report for: Tahoe City Public Utility District (CA0910012)
Reporting Year: 2020 1/2020 - 12/2020

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

Master Meter and Supply Error Adjustments

WATER SUPPLIED

<---------- Enter grading in column 'E' and 'J' ---------->

					Pcnt:	Value:	
Volume from own sources:	3	40.913	MG/Yr	8			MG/Yr
Water imported:	n/a	0.000	MG/Yr				MG/Yr
Water exported:	n/a	0.000	MG/Yr				MG/Yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: 40.913 MG/Yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

			Pcnt:	Value:	
Billed metered:	8	39.306	MG/Yr			
Billed unmetered:	n/a	0.000	MG/Yr			
Unbilled metered:	n/a	0.000	MG/Yr			
Unbilled unmetered:		0.511	MG/Yr	1.25%		MG/Yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

AUTHORIZED CONSUMPTION: 39.817 MG/Yr

Use buttons to select percentage of water supplied **OR** value

WATER LOSSES (Water Supplied - Authorized Consumption) 1.096 MG/Yr

Apparent Losses

			Pcnt:	Value:	
Unauthorized consumption:		0.102	MG/Yr	0.25%		MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	3	0.031	MG/Yr	0.08%	MG/Yr
Systematic data handling errors:		0.098	MG/Yr	0.25%	MG/Yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: 0.232 MG/Yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 0.864 MG/Yr

WATER LOSSES: 1.096 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 1.607 MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	7	14.0	miles
Number of active AND inactive service connections:	5	797	
Service connection density:		57	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line: (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure:	6	95.0	psi

COST DATA

Total annual cost of operating water system:	10	$450,579	$/Year	
Customer retail unit cost (applied to Apparent Losses):	9	$4.14	$/1000 gallons (US)	
Variable production cost (applied to Real Losses):	8	$1,048.00	$/Million gallons	☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 56 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Customer metering inaccuracies
3: Unauthorized consumption

McKinney/Quail

AWWA Free Water Audit Software: Reporting Worksheet

WAS v5.0

? Click to access definition
+ Click to add a comment

Water Audit Report for: Tahoe City Public Utility District (CA3110011)
Reporting Year: 2020 1/2020 - 12/2020

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

Master Meter and Supply Error Adjustments

WATER SUPPLIED

<---------- Enter grading in column 'E' and 'J' ---------->

					Pcnt:	Value:	
Volume from own sources:	3	49.035	MG/Yr	8			MG/Yr
Water imported:	n/a	0.000	MG/Yr				MG/Yr
Water exported:	3	1.468	MG/Yr	4			MG/Yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: 47.567 MG/Yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

				Pcnt:	Value:	
Billed metered:	8	40.895	MG/Yr			
Billed unmetered:	n/a	0.000	MG/Yr			
Unbilled metered:	n/a	0.000	MG/Yr			
Unbilled unmetered:		0.595	MG/Yr	1.25%		MG/Yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

Use buttons to select percentage of water supplied **OR** value

AUTHORIZED CONSUMPTION: 41.490 MG/Yr

WATER LOSSES (Water Supplied - Authorized Consumption)

6.077 MG/Yr

Apparent Losses

				Pcnt:	Value:	
Unauthorized consumption:		0.119	MG/Yr	0.25%		MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	3	0.033	MG/Yr	0.08%		MG/Yr
Systematic data handling errors:		0.102	MG/Yr	0.25%		MG/Yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: 0.254 MG/Yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 5.824 MG/Yr

WATER LOSSES: 6.077 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 6.672 MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	7	8.9	miles
Number of active AND inactive service connections:	5	599	
Service connection density:		67	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line: (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure: 6 75.0 psi

COST DATA

Total annual cost of operating water system:	10	$540,019	$/Year	
Customer retail unit cost (applied to Apparent Losses):	9	$4.14	$/1000 gallons (US)	
Variable production cost (applied to Real Losses):	8	$538.02	$/Million gallons	☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 56 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Customer metering inaccuracies
3: Unauthorized consumption

Alpine Peaks

AWWA Free Water Audit Software: Reporting Worksheet

WAS v5.0

? Click to access definition
+ Click to add a comment

Water Audit Report for: Tahoe City Public Utility District (CA3110044)
Reporting Year: 2020 1/2020 - 12/2020

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

Master Meter and Supply Error Adjustments

WATER SUPPLIED

<---------- Enter grading in column 'E' and 'J' ---------->

					Pcnt:	Value:	
Volume from own sources:	3	6.430	MG/Yr	8			MG/Yr
Water imported:	n/a	0.000	MG/Yr				MG/Yr
Water exported:	n/a	0.000	MG/Yr				MG/Yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: 6.430 MG/Yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

			Pcnt:	Value:	
Billed metered:	8	5.658	MG/Yr			
Billed unmetered:	n/a	0.000	MG/Yr			
Unbilled metered:	n/a	0.000	MG/Yr			
Unbilled unmetered:		0.080	MG/Yr	1.25%		MG/Yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

AUTHORIZED CONSUMPTION: 5.738 MG/Yr

Use buttons to select percentage of water supplied **OR** value

WATER LOSSES (Water Supplied - Authorized Consumption)

0.692 MG/Yr

Apparent Losses

			Pcnt:	Value:	
Unauthorized consumption:		0.016	MG/Yr	0.25%		MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	3	0.005	MG/Yr	0.08%	MG/Yr
Systematic data handling errors:		0.014	MG/Yr	0.25%	MG/Yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: 0.035 MG/Yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 0.657 MG/Yr

WATER LOSSES: 0.692 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 0.772 MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	7	3.6	miles
Number of active AND inactive service connections:	5	288	
Service connection density:		80	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line: (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure:	6	85.0	psi

COST DATA

Total annual cost of operating water system:	10	$70,798	$/Year	
Customer retail unit cost (applied to Apparent Losses):	9	$4.14	$/1000 gallons (US)	
Variable production cost (applied to Real Losses):	8	$107.18	$/Million gallons	☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 56 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Customer metering inaccuracies
3: Unauthorized consumption

From: Benin, Nirmala@DWR <Nirmala.Benin@water.ca.gov>
Sent: Friday, September 24, 2021 6:40 PM
To: Tony Laliotis
Subject: RE: 2017, 2018 & 2019 Validated Water Loss Audit Reports for TAHOE CITY PUD - MAIN, PWSID CA3110010
Attachments: image001.gif

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY **GAVIN NEWSOM**, *Governor*

DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791

September 24, 2021

Dear TAHOE CITY PUD - MAIN Representative,

This letter updates the letter below on the status of your water audit report requirements based on information you provided today.

It was an error on DWR's part that you were informed incorrectly in 2018 that you do not have to submit water audit reports for water systems smaller than 3000 service connections or serving less than 3000 AF/year.

We will not require you to submit water audit reports for 2017-2019. However, moving forward (starting with the 2020 reporting year), DWR expects you to comply with water loss regulations which requires water loss audit reports for all urban retailer water systems including TAHOE CITY PUD - MAIN.

You have 90 days from the date of this letter to submit your report based on CCR Section 638.6. However, given the short notice, we understand it might take more time for you to submit the TAHOE CITY PUD - MAIN 2020 audit. DWR accepts late reports.

If you have any questions, please contact me at nirmala.benin@water.ca.gov or 916-813-5595.

Sincerely,

Nirmala Benin

Nirmala Benin
Water Use Efficiency Branch
California Department of Water Resources

From: Ly, Krista@DWR <Krista.Ly@water.ca.gov>
Sent: Wednesday, September 8, 2021 1:31 PM
Cc: tlaliotis@tcpud.org
Subject: 2017, 2018 & 2019 Validated Water Loss Audit Reports for TAHOE CITY PUD - MAIN, PWSID CA3110010

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY **GAVIN NEWSOM**, *Governor*

DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791

September 8, 2021

Subject: 2017, 2018 & 2019 Validated Water Loss Audit Reports for TAHOE CITY PUD - MAIN, PWSID CA3110010

Dear TAHOE CITY PUD - MAIN Representative,

The Department of Water Resources (DWR) has recently reviewed Validated Water Loss Audit Reports submitted to us (as of July 29, 2021) and we noticed you have not submitted annual water loss audit reports for your water system.

Public Water System associated with Water Supplier	Status of 2017 Submittal to DWR	Status of 2018 Submittal to DWR	Status of 2019 Submittal to DWR
PWSID CA3110010, TAHOE CITY PUD - MAIN Associated with Water Supplier Tahoe City Public Utilities District	Missing	Missing	Missing

If you have completed the missing validated water loss audits but have not submitted them to DWR, please submit them as soon as possible using the following web portal: https://WUEdata.water.ca.gov/secure

Title 23 of California Code of Regulations (CCR) § 638.5. Audit Reporting Requirements are attached for your reference.

CCR Section 638.5(c), states: *In the case of urban retail water suppliers with two or more separate public potable water systems, the urban retail water supplier shall submit a separate AWWA Free Water Audit Software spreadsheet worksheet meeting the requirements in subsection (b)(1) for each potable water system.*

The regulation requires a separate water audit and report for each stand-alone water system served by urban retail water suppliers. This requirement does not apply only to community water systems but to all potable water systems owned by urban retail water suppliers. DWR will return water loss data audit reports that include audits combining

more than one stand-alone water system. If you have multiple stand-alone potable water systems, you will need to submit a separate audit and report for each of those systems. A combined water audit and report can be submitted for only those water systems that are interconnected by permanent 2-way interties.

Please use this calendar to book a 30-minute appointment with me if you would like to discuss multiple water system reporting further:
https://outlook.office365.com/owa/calendar/NirmalaDWR@cawater.onmicrosoft.com/bookings/

The deadlines for reporting to DWR are specified in California Water Code Section 10608.34. DWR cannot change the deadlines but accepts late reports. All water loss audit reports submitted to DWR are posted at this website: https://wuedata.water.ca.gov.

Please also note that the State Water Resources Control Board (SWRCB) is only using DWR data from water system audits reports that meet the requirements. Please address the missing information so that your audit can be accepted by DWR. Once the audit is approved, the SWRCB can use that data to calculate water system specific water loss standards. More information on the SWRCB's process and contact information can be found here: https://www.waterboards.ca.gov/water_issues/programs/conservation_portal/water_loss_control.html

Other Pertinent Information

All listserv announcements about annual water loss reporting, webinars and recordings, FAQs and other materials are available at this link: https://tinyurl.com/DWR-Water-Loss-Docs.

If you would like to be added to our water loss listserv to receive information on our 3rd Thursday monthly webinar series or other announcements related to water loss and leak detection, please sign up at this link: https://tinyurl.com/DWR-Water-Loss-listserv

Please use and continue to use AWWA Free Water Audit Software (FWAS) version 5.0 for future submittals. DWR will give several months of advance notification (through our website and listserv messaging) about when our submittal system will be ready to accept FWAS v6.0.

If you have any questions, please contact me at nirmala.benin@water.ca.gov or 916-813-5595.

Sincerely,

Nirmala Benin

Nirmala Benin
Water Use Efficiency Branch
California Department of Water Resources

Attachment

Source: https://govt.westlaw.com/calregs/Document/IECFD4F5BC02E41D5AC7854B0DC086F2D?originationContext=document&transitionType=StatuteNavigator&needToInjectTerms=False&viewType=FullText&contextData=%28sc.Default%29

§ 638.5. Audit Reporting Requirements.

23 CA ADC § 638.5BARCLAYS OFFICIAL CALIFORNIA CODE OF REGULATIONS

Barclays Official California Code of Regulations Currentness
Title 23. Waters
Division 2. Department of Water Resources
Chapter 7. Water Loss Audits and Water Loss Control Reporting

23 CCR § 638.5

§ 638.5. Audit Reporting Requirements.

(a) Not later than October 1, 2017, and by October 1 of every year thereafter, urban retail water suppliers shall submit a Level 1 validated Report to the Department. The Report shall include data spanning 12 consecutive months, as follows:
(1) For utilities that prefer to provide Reports on a calendar year basis the reporting period shall be for calendar year 2016 and annually thereafter.
(2) For utilities that prefer to provide Reports on a fiscal year basis that is not on the calendar year, the first reporting period shall be for their 2016-2017 fiscal year and annually thereafter.
(b) Reports under subsection (a) shall be submitted in two separate files. One file shall be in a complete and fully operational water loss audit spreadsheet format generated from the AWWA Free Water Audit Software and contain the water audit information specified in subsection (1) below. The second file shall be in PDF format and contain the information specified in subsections (2)-(4) below:
(1) System-specific data entered into each field in the water loss audit spreadsheet worksheets of the AWWA Free Water Audit Software, with a DVS.
(2) In 2017, information identifying steps taken by the urban retail water supplier in the previous year to increase the validity of data entered into the final audit, reduce the volume of apparent losses, and reduce the volume of real losses, as informed by the annual validated water audit.
(3) Beginning in 2018, information identifying steps taken by the urban retail water supplier in the preceding 3 years to increase the validity of data entered into the final audit, reduce the volume of apparent losses, and reduce the volume of real losses, as informed by the annual validated water audit.
(4) A statement confirming the Level 1 validation of the submitted water loss audit, including the validation findings, and documenting the following:
(A) Identification of the water audit validator.
(B) Qualification of the water audit validator.
(C) Date of the Level 1 validation review.
(5) The following Water Loss Audit Certification Statement, signed by the chief financial officer, the chief engineer or the general manager of an urban retail water supplier:
“This water loss audit report meets the requirements of California Code of Regulations Title 23, Division 2, Chapter 7 and California Water Code Section 10608.34 and has been prepared in accordance with the methods prescribed therein.”
(c) In the case of urban retail water suppliers with two or more separate public potable water systems, the urban retail water supplier shall submit a separate AWWA Free Water Audit Software spreadsheet worksheet meeting the requirements in subsection (b)(1) for each potable water system.
(d) Reports required under subsection (a) shall be submitted using the Department's Water Use Efficiency Data online submittal tool at https://wuedata.water.ca.gov/secure/login_auth.asp.
Note: Authority cited: Section 10608.34, Water Code. Reference: Section 10608.34, Water Code.

HISTORY

1. New section filed 1-24-2018; operative 1-24-2018 pursuant to Government Code section 11343.4(b)(3) (Register 2018, No. 4).
2. Change without regulatory effect renumbering section 700.5 to new section 638.5 filed 2-22-2018 pursuant to section 100, title 1, California Code of Regulations (Register 2018, No. 8).

This database is current through 7/16/21 Register 2021, No. 29
23 CCR § 638.5, 23 CA ADC § 638.5

From: Benin, Nirmala@DWR <Nirmala.Benin@water.ca.gov>
Sent: Friday, September 24, 2021 6:41 PM
To: Tony Laliotis
Subject: RE: 2017, 2018 & 2019 Validated Water Loss Audit Reports for TAHOE CITY PUD - RUBICON, PWSID CA0910012
Attachments: image001.gif

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY **GAVIN NEWSOM**, *Governor*

DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791

September 24, 2021

Dear TAHOE CITY PUD - RUBICON Representative,

This letter updates the letter below on the status of your water audit report requirements based on information you provided today.

It was an error on DWR's part that you were informed incorrectly in 2018 that you do not have to submit water audit reports for water systems smaller than 3000 service connections or serving less than 3000 AF/year.

We will not require you to submit water audit reports for 2017-2019. However, moving forward (starting with the 2020 reporting year), DWR expects you to comply with water loss regulations which requires water loss audit reports for all urban retailer water systems including RUBICON.

You have 90 days from the date of this letter to submit your report based on CCR Section 638.6. However, given the short notice, we understand it might take more time for you to submit the RUBICON 2020 audit. DWR accepts late reports.

If you have any questions, please contact me at nirmala.benin@water.ca.gov or 916-813-5595.

Sincerely,

Nirmala Benin

Nirmala Benin
Water Use Efficiency Branch
California Department of Water Resources

From: Ly, Krista@DWR <Krista.Ly@water.ca.gov>
Sent: Wednesday, September 8, 2021 1:31 PM
Cc: tlaliotis@tcpud.org
Subject: 2017, 2018 & 2019 Validated Water Loss Audit Reports for TAHOE CITY PUD - RUBICON, PWSID CA0910012

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY **GAVIN NEWSOM**, *Governor*

DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791

September 8, 2021

Subject: 2017, 2018 & 2019 Validated Water Loss Audit Reports for TAHOE CITY PUD - RUBICON, PWSID CA0910012

Dear TAHOE CITY PUD - RUBICON Representative,

The Department of Water Resources (DWR) has recently reviewed Validated Water Loss Audit Reports submitted to us (as of July 29, 2021) and we noticed you have not submitted annual water loss audit reports for your water system.

Public Water System associated with Water Supplier	Status of 2017 Submittal to DWR	Status of 2018 Submittal to DWR	Status of 2019 Submittal to DWR
PWSID CA0910012, TAHOE CITY PUD - RUBICON Associated with Water Supplier Tahoe City Public Utilities District	Missing	Missing	Missing

If you have completed the missing validated water loss audits but have not submitted them to DWR, please submit them as soon as possible using the following web portal: https://WUEdata.water.ca.gov/secure

Title 23 of California Code of Regulations (CCR) § 638.5. Audit Reporting Requirements are attached for your reference.

CCR Section 638.5(c), states: *In the case of urban retail water suppliers with two or more separate public potable water systems, the urban retail water supplier shall submit a separate AWWA Free Water Audit Software spreadsheet worksheet meeting the requirements in subsection (b)(1) for each potable water system.*

The regulation requires a separate water audit and report for each stand-alone water system served by urban retail water suppliers. This requirement does not apply only to community water systems but to all potable water systems owned by urban retail water

suppliers. DWR will return water loss data audit reports that include audits combining more than one stand-alone water system. If you have multiple stand-alone potable water systems, you will need to submit a separate audit and report for each of those systems. A combined water audit and report can be submitted for only those water systems that are interconnected by permanent 2-way interties.

Please use this calendar to book a 30-minute appointment with me if you would like to discuss multiple water system reporting further:
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Other Pertinent Information

All listserv announcements about annual water loss reporting, webinars and recordings, FAQs and other materials are available at this link: https://tinyurl.com/DWR-Water-Loss-Docs.

If you would like to be added to our water loss listserv to receive information on our 3rd Thursday monthly webinar series or other announcements related to water loss and leak detection, please sign up at this link: https://tinyurl.com/DWR-Water-Loss-listserv

Please use and continue to use AWWA Free Water Audit Software (FWAS) version 5.0 for future submittals. DWR will give several months of advance notification (through our website and listserv messaging) about when our submittal system will be ready to accept FWAS v6.0.

If you have any questions, please contact me at nirmala.benin@water.ca.gov or 916-813-5595.

Sincerely,

Nirmala Benin

Nirmala Benin
Water Use Efficiency Branch
California Department of Water Resources

Attachment

Source: https://govt.westlaw.com/calregs/Document/IECFD4F5BC02E41D5AC7854B0DC086F2D?originationContext=document&transitionType=StatuteNavigator&needToInjectTerms=False&viewType=FullText&contextData=%28sc.Default%29

§ 638.5. Audit Reporting Requirements.

23 CA ADC § 638.5BARCLAYS OFFICIAL CALIFORNIA CODE OF REGULATIONS

Barclays Official California Code of Regulations Currentness
Title 23. Waters
Division 2. Department of Water Resources
Chapter 7. Water Loss Audits and Water Loss Control Reporting

23 CCR § 638.5

§ 638.5. Audit Reporting Requirements.

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(b) Reports under subsection (a) shall be submitted in two separate files. One file shall be in a complete and fully operational water loss audit spreadsheet format generated from the AWWA Free Water Audit Software and contain the water audit information specified in subsection (1) below. The second file shall be in PDF format and contain the information specified in subsections (2)-(4) below:
(1) System-specific data entered into each field in the water loss audit spreadsheet worksheets of the AWWA Free Water Audit Software, with a DVS.
(2) In 2017, information identifying steps taken by the urban retail water supplier in the previous year to increase the validity of data entered into the final audit, reduce the volume of apparent losses, and reduce the volume of real losses, as informed by the annual validated water audit.
(3) Beginning in 2018, information identifying steps taken by the urban retail water supplier in the preceding 3 years to increase the validity of data entered into the final audit, reduce the volume of apparent losses, and reduce the volume of real losses, as informed by the annual validated water audit.
(4) A statement confirming the Level 1 validation of the submitted water loss audit, including the validation findings, and documenting the following:
(A) Identification of the water audit validator.
(B) Qualification of the water audit validator.
(C) Date of the Level 1 validation review.
(5) The following Water Loss Audit Certification Statement, signed by the chief financial officer, the chief engineer or the general manager of an urban retail water supplier:
“This water loss audit report meets the requirements of California Code of Regulations Title 23, Division 2, Chapter 7 and California Water Code Section 10608.34 and has been prepared in accordance with the methods prescribed therein.”
(c) In the case of urban retail water suppliers with two or more separate public potable water systems, the urban retail water supplier shall submit a separate AWWA Free Water Audit Software spreadsheet worksheet meeting the requirements in subsection (b)(1) for each potable water system.
(d) Reports required under subsection (a) shall be submitted using the Department's Water Use Efficiency Data online submittal tool at https://wuedata.water.ca.gov/secure/login_auth.asp.
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HISTORY

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This database is current through 7/16/21 Register 2021, No. 29
23 CCR § 638.5, 23 CA ADC § 638.5

From: Benin, Nirmala@DWR <Nirmala.Benin@water.ca.gov>
Sent: Friday, September 24, 2021 6:41 PM
To: Tony Laliotis
Subject: RE: 2017, 2018 & 2019 Validated Water Loss Audit Reports for TAHOE CITY PUD - MCKINNEY/QUAIL, PWSID CA3110011
Attachments: image001.gif

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY **GAVIN NEWSOM**, *Governor*

DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791

September 24, 2021

Dear TAHOE CITY PUD - MCKINNEY/QUAIL Representative,

This letter updates the letter below on the status of your water audit report requirements based on information you provided today.

It was an error on DWR's part that you were informed incorrectly in 2018 that you do not have to submit water audit reports for water systems smaller than 3000 service connections or serving less than 3000 AF/year.

We will not require you to submit water audit reports for 2017-2019. However, moving forward (starting with the 2020 reporting year), DWR expects you to comply with water loss regulations which requires water loss audit reports for all urban retailer water systems including TAHOE CITY PUD - MCKINNEY/QUAIL.

You have 90 days from the date of this letter to submit your report based on CCR Section 638.6. However, given the short notice, we understand it might take more time for you to submit the TAHOE CITY PUD - MCKINNEY/QUAIL 2020 audit. DWR accepts late reports.

If you have any questions, please contact me at nirmala.benin@water.ca.gov or 916-813-5595.

Sincerely,

Nirmala Benin

Nirmala Benin
Water Use Efficiency Branch
California Department of Water Resources

Nirmala Benin, P.E.
Senior Engineer | California Department of Water Resources, Sacramento/Glendale
916-813-5595

From: Ly, Krista@DWR <Krista.Ly@water.ca.gov>
Sent: Wednesday, September 8, 2021 1:31 PM
Cc: tlaliotis@tcpud.org
Subject: 2017, 2018 & 2019 Validated Water Loss Audit Reports for TAHOE CITY PUD - MCKINNEY/QUAIL, PWSID CA3110011

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY **GAVIN NEWSOM**, *Governor*

DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791

September 8, 2021

Subject: 2017, 2018 & 2019 Validated Water Loss Audit Reports for TAHOE CITY PUD - MCKINNEY/QUAIL, PWSID CA3110011

Dear TAHOE CITY PUD - MCKINNEY/QUAIL Representative,

The Department of Water Resources (DWR) has recently reviewed Validated Water Loss Audit Reports submitted to us (as of July 29, 2021) and we noticed you have not submitted annual water loss audit reports for your water system.

Public Water System associated with Water Supplier	Status of 2017 Submittal to DWR	Status of 2018 Submittal to DWR	Status of 2019 Submittal to DWR
PWSID CA3110011, TAHOE CITY PUD - MCKINNEY/QUAIL Associated with Water Supplier Tahoe City Public Utilities District	Missing	Missing	Missing

If you have completed the missing validated water loss audits but have not submitted them to DWR, please submit them as soon as possible using the following web portal: https://WUEdata.water.ca.gov/secure

Title 23 of California Code of Regulations (CCR) § 638.5. Audit Reporting Requirements are attached for your reference.

CCR Section 638.5(c), states: *In the case of urban retail water suppliers with two or more separate public potable water systems, the urban retail water supplier shall submit a separate AWWA Free Water Audit Software spreadsheet worksheet meeting the requirements in subsection (b)(1) for each potable water system.*

The regulation requires a separate water audit and report for each stand-alone water system served by urban retail water suppliers. This requirement does not apply only to community water systems but to all potable water systems owned by urban retail water suppliers. DWR will return water loss data audit reports that include audits combining more than one stand-alone water system. If you have multiple stand-alone potable water systems, you will need to submit a separate audit and report for each of those systems. A combined water audit and report can be submitted for only those water systems that are interconnected by permanent 2-way interties.

Please use this calendar to book a 30-minute appointment with me if you would like to discuss multiple water system reporting further:
https://outlook.office365.com/owa/calendar/NirmalaDWR@cawater.onmicrosoft.com/bookings/

The deadlines for reporting to DWR are specified in California Water Code Section 10608.34. DWR cannot change the deadlines but accepts late reports. All water loss audit reports submitted to DWR are posted at this website: https://wuedata.water.ca.gov.

Please also note that the State Water Resources Control Board (SWRCB) is only using DWR data from water system audits reports that meet the requirements. Please address the missing information so that your audit can be accepted by DWR. Once the audit is approved, the SWRCB can use that data to calculate water system specific water loss standards. More information on the SWRCB's process and contact information can be found here: https://www.waterboards.ca.gov/water_issues/programs/conservation_portal/water_loss_control.html

Other Pertinent Information

All listserv announcements about annual water loss reporting, webinars and recordings, FAQs and other materials are available at this link: https://tinyurl.com/DWR-Water-Loss-Docs.

If you would like to be added to our water loss listserv to receive information on our 3rd Thursday monthly webinar series or other announcements related to water loss and leak detection, please sign up at this link: https://tinyurl.com/DWR-Water-Loss-listserv

Please use and continue to use AWWA Free Water Audit Software (FWAS) version 5.0 for future submittals. DWR will give several months of advance notification (through our website and listserv messaging) about when our submittal system will be ready to accept FWAS v6.0.

If you have any questions, please contact me at nirmala.benin@water.ca.gov or 916-813-5595.

Sincerely,

Nirmala Benin

Nirmala Benin
Water Use Efficiency Branch
California Department of Water Resources

Attachment

Source: https://govt.westlaw.com/calregs/Document/IECFD4F5BC02E41D5AC7854B0DC086F2D?originationContext=document&transitionType=StatuteNavigator&needToInjectTerms=False&viewType=FullText&contextData=%28sc.Default%29

§ 638.5. Audit Reporting Requirements.

23 CA ADC § 638.5BARCLAYS OFFICIAL CALIFORNIA CODE OF REGULATIONS

Barclays Official California Code of Regulations Currentness
Title 23. Waters
Division 2. Department of Water Resources
Chapter 7. Water Loss Audits and Water Loss Control Reporting

23 CCR § 638.5

§ 638.5. Audit Reporting Requirements.

(a) Not later than October 1, 2017, and by October 1 of every year thereafter, urban retail water suppliers shall submit a Level 1 validated Report to the Department. The Report shall include data spanning 12 consecutive months, as follows:
(1) For utilities that prefer to provide Reports on a calendar year basis the reporting period shall be for calendar year 2016 and annually thereafter.
(2) For utilities that prefer to provide Reports on a fiscal year basis that is not on the calendar year, the first reporting period shall be for their 2016-2017 fiscal year and annually thereafter.
(b) Reports under subsection (a) shall be submitted in two separate files. One file shall be in a complete and fully operational water loss audit spreadsheet format generated from the AWWA Free Water Audit Software and contain the water audit information specified in subsection (1) below. The second file shall be in PDF format and contain the information specified in subsections (2)-(4) below:
(1) System-specific data entered into each field in the water loss audit spreadsheet worksheets of the AWWA Free Water Audit Software, with a DVS.
(2) In 2017, information identifying steps taken by the urban retail water supplier in the previous year to increase the validity of data entered into the final audit, reduce the volume of apparent losses, and reduce the volume of real losses, as informed by the annual validated water audit.
(3) Beginning in 2018, information identifying steps taken by the urban retail water supplier in the preceding 3 years to increase the validity of data entered into the final audit, reduce the volume of apparent losses, and reduce the volume of real losses, as informed by the annual validated water audit.
(4) A statement confirming the Level 1 validation of the submitted water loss audit, including the validation findings, and documenting the following:
(A) Identification of the water audit validator.
(B) Qualification of the water audit validator.
(C) Date of the Level 1 validation review.
(5) The following Water Loss Audit Certification Statement, signed by the chief financial officer, the chief engineer or the general manager of an urban retail water supplier:
“This water loss audit report meets the requirements of California Code of Regulations Title 23, Division 2, Chapter 7 and California Water Code Section 10608.34 and has been prepared in accordance with the methods prescribed therein.”
(c) In the case of urban retail water suppliers with two or more separate public potable water systems, the urban retail water supplier shall submit a separate AWWA Free Water Audit Software spreadsheet worksheet meeting the requirements in subsection (b)(1) for each potable water system.
(d) Reports required under subsection (a) shall be submitted using the Department's Water Use Efficiency Data online submittal tool at https://wuedata.water.ca.gov/secure/login_auth.asp.
Note: Authority cited: Section 10608.34, Water Code. Reference: Section 10608.34, Water Code.

HISTORY

1. New section filed 1-24-2018; operative 1-24-2018 pursuant to Government Code section 11343.4(b)(3) (Register 2018, No. 4).
2. Change without regulatory effect renumbering section 700.5 to new section 638.5 filed 2-22-2018 pursuant to section 100, title 1, California Code of Regulations (Register 2018, No. 8).

From: Benin, Nirmala@DWR <Nirmala.Benin@water.ca.gov>
Sent: Friday, September 24, 2021 6:40 PM
To: Tony Laliotis
Subject: RE: 2017, 2018 & 2019 Validated Water Loss Audit Reports for TAHOE CITY PUD -ALPINE PEAKS, PWSID CA3110044
Attachments: image001.gif

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY **GAVIN NEWSOM**, *Governor*

DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791

September 24, 2021

Dear TAHOE CITY PUD - ALPINE PEAKS Representative,

This letter updates the letter below on the status of your water audit report requirements based on information you provided today.

It was an error on DWR's part that you were informed incorrectly in 2018 that you do not have to submit water audit reports for water systems smaller than 3000 service connections or serving less than 3000 AF/year.

We will not require you to submit water audit reports for 2017-2019. However, moving forward (starting with the 2020 reporting year), DWR expects you to comply with water loss regulations which requires water loss audit reports for all urban retailer water systems including TAHOE CITY PUD - ALPINE PEAKS.

You have 90 days from the date of this letter to submit your report based on CCR Section 638.6. However, given the short notice, we understand it might take more time for you to submit the TAHOE CITY PUD - ALPINE PEAKS 2020 audit. DWR accepts late reports.

If you have any questions, please contact me at nirmala.benin@water.ca.gov or 916-813-5595.

Sincerely,

Nirmala Benin

Nirmala Benin
Water Use Efficiency Branch
California Department of Water Resources

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY **GAVIN NEWSOM**, *Governor*

DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791

September 8, 2021

Subject: 2017, 2018 & 2019 Validated Water Loss Audit Reports for TAHOE CITY PUD - ALPINE PEAKS, PWSID CA3110044

Dear TAHOE CITY PUD - ALPINE PEAKS Representative,

The Department of Water Resources (DWR) has recently reviewed Validated Water Loss Audit Reports submitted to us (as of July 29, 2021) and we noticed you have not submitted annual water loss audit reports for your water system.

Public Water System associated with Water Supplier	Status of 2017 Submittal to DWR	Status of 2018 Submittal to DWR	Status of 2019 Submittal to DWR
PWSID CA3110044, TAHOE CITY PUD - ALPINE PEAKS Associated with Water Supplier Tahoe City Public Utilities District	Missing	Missing	Missing

If you have completed the missing validated water loss audits but have not submitted them to DWR, please submit them as soon as possible using the following web portal: https://WUEdata.water.ca.gov/secure

Title 23 of California Code of Regulations (CCR) § 638.5. Audit Reporting Requirements are attached for your reference.

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The regulation requires a separate water audit and report for each stand-alone water system served by urban retail water suppliers. This requirement does not apply only to community water systems but to all potable water systems owned by urban retail water suppliers. DWR will return water loss data audit reports that include audits combining more than one stand-alone water system. If you have multiple stand-alone potable water systems, you will need to submit a separate audit and report for each of those systems. A combined water audit and report can be submitted for only those water systems that are interconnected by permanent 2-way interties.

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Please use and continue to use AWWA Free Water Audit Software (FWAS) version 5.0 for future submittals. DWR will give several months of advance notification (through our website and listserv messaging) about when our submittal system will be ready to accept FWAS v6.0.

If you have any questions, please contact me at nirmala.benin@water.ca.gov or 916-813-5595.

Sincerely,

Nirmala Benin

Nirmala Benin
Water Use Efficiency Branch
California Department of Water Resources

Attachment

Source: https://govt.westlaw.com/calregs/Document/IECFD4F5BC02E41D5AC7854B0DC086F2D?originationContext=document&transitionType=StatuteNavigator&needToInjectTerms=False&viewType=FullText&contextData=%28sc.Default%29

§ 638.5. Audit Reporting Requirements.

23 CA ADC § 638.5BARCLAYS OFFICIAL CALIFORNIA CODE OF REGULATIONS

Barclays Official California Code of Regulations Currentness
Title 23. Waters
Division 2. Department of Water Resources
Chapter 7. Water Loss Audits and Water Loss Control Reporting

23 CCR § 638.5

§ 638.5. Audit Reporting Requirements.

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(4) A statement confirming the Level 1 validation of the submitted water loss audit, including the validation findings, and documenting the following:
(A) Identification of the water audit validator.
(B) Qualification of the water audit validator.
(C) Date of the Level 1 validation review.
(5) The following Water Loss Audit Certification Statement, signed by the chief financial officer, the chief engineer or the general manager of an urban retail water supplier:
“This water loss audit report meets the requirements of California Code of Regulations Title 23, Division 2, Chapter 7 and California Water Code Section 10608.34 and has been prepared in accordance with the methods prescribed therein.”
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1. New section filed 1-24-2018; operative 1-24-2018 pursuant to Government Code section 11343.4(b)(3) (Register 2018, No. 4).
2. Change without regulatory effect renumbering section 700.5 to new section 638.5 filed 2-22-2018 pursuant to section 100, title 1, California Code of Regulations (Register 2018, No. 8).

This database is current through 7/16/21 Register 2021, No. 29
23 CCR § 638.5, 23 CA ADC § 638.5

Appendix D

SB X7-7 VERIFICATION AND COMPLIANCE FORMS

SB X7-7 Table 0: Units of Measure Used in UWMP* *(select one from the drop down list)*
Million Gallons
**The unit of measure must be consistent with Submittal 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	595	Million Gallons
	2008 total volume of delivered recycled water	-	Million Gallons
	2008 recycled water as a percent of total deliveries	0%	**See Note 1**
	Number of years in baseline period[1, 2]	10	Years
	Year beginning baseline period range	1998	
	Year ending baseline period range[3]	2007	
5-year baseline period	Number of years in baseline period	5	Years
	Year beginning baseline period range	2003	
	Year ending baseline period range[4]	2007	

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

[2] The Water Code requires that the baseline period is between 10 and 15 years. However, DWR recognizes that some water suppliers may not have the minimum 10 years of baseline data.

[3] The ending year for the 10-15 year baseline period must be between December 31, 2004 and December 31, 2010.

[4] The ending year for the 5 year baseline period must be between December 31, 2007 and December 31, 2010.

NOTES:

SB X7-7 Table 2: Method for Population Estimates	
Method Used to Determine Population (may check more than one)	
☐	**1. Department of Finance** (DOF) or **American Community Survey** (ACS)
☐	**2. Persons-per-Connection Method**
☐	**3. DWR Population Tool**
☑	**4. Other** DWR recommends pre-review
NOTES: The TCPUD has utilized a variation of the persons-per-connection population estimate methodology to determine the population. The number of occupied units (accounts with monthly demand greater than 1,000 gallons) for the metered systems (Tahoe City Main, Rubicon, McKinney/Quail, Alpine Peaks, and Tahoe-Truckee Forest Tract) plus the estimated number of occupied units for the unmetered systems (Madden Creek, Tahoe Cedars, and Timberland) was multiplied by the average residential occupancy of 2.1 persons per (occupied) unit based on Placer County 2020 Census Tracts 201.04, 221, 222, 223, and El Dorado County 2020 Census Tracts 320.01, 320.02.	

SB X7-7 Table 3: Service Area Population		
Year		Population
10 to 15 Year Baseline Population		
Year 1	1998	8,028
Year 2	1999	8,028
Year 3	2000	8,028
Year 4	2001	8,028
Year 5	2002	8,028
Year 6	2003	8,028
Year 7	2004	8,028
Year 8	2005	8,028
Year 9	2006	8,028
Year 10	2007	8,028
Year 11		
Year 12		
Year 13		
Year 14		
Year 15		
5 Year Baseline Population		
Year 1	2003	8,028
Year 2	2004	8,028
Year 3	2005	8,028
Year 4	2006	8,028
Year 5	2007	8,028
NOTES:		

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

Baseline Year *Fm SB X7-7 Table 3*		Volume Into Distribution System *This column will remain blank until SB X7-7 Table 4-A is completed.*	Deductions					Million Gallons
			Exported Water	Change in Dist. System Storage (+/-)	Indirect Recycled Water *This column will remain blank until SB X7-7 Table 4-B is completed.*	Water Delivered for Agricultural Use	Process Water *This column will remain blank until SB X7-7 Table 4-D is completed.*	Annual Gross Water Use
10 to 15 Year Baseline - Gross Water Use								
Year 1	1998	853	18		-		-	835
Year 2	1999	872	26		-		-	846
Year 3	2000	898	27		-		-	871
Year 4	2001	962	28		-		-	934
Year 5	2002	927	29		-		-	898
Year 6	2003	875	29		-		-	846
Year 7	2004	892	26		-		-	866
Year 8	2005	883	23		-		-	860
Year 9	2006	836	23		-		-	813
Year 10	2007	886	29		-		-	857
Year 11	0	-			-		-	-
Year 12	0	-			-		-	-
Year 13	0	-			-		-	-
Year 14	0	-			-		-	-
Year 15	0	-			-		-	-
10 - 15 year baseline average gross water use								**863**
5 Year Baseline - Gross Water Use								
Year 1	2003	875	29		-		-	846
Year 2	2004	892	26		-		-	866
Year 3	2005	883	23		-		-	860
Year 4	2006	836	25		-		-	811
Year 5	2007	886	29		-		-	857
5 year baseline average gross water use								**848**

* **Units of measure** (AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in Table 2-3.

NOTES: Units of measure are million gallons (MG).

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

Complete one table for each source.

Name of Source	Tahoe City Well #2 (Tahoe City)
This water source is:	
☑	The supplier's own water source
☐	A purchased or imported source

Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System[1]	Meter Error Adjustment[2] *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1998	41		41
Year 2	1999	99		99
Year 3	2000	206		206
Year 4	2001	207		207
Year 5	2002	185		185
Year 6	2003	103		103
Year 7	2004	186		186
Year 8	2005	185		185
Year 9	2006	178		178
Year 10	2007	198		198
Year 11	0			-
Year 12	0			-
Year 13	0			-
Year 14	0			-
Year 15	0			-
5 Year Baseline - Water into Distribution System				
Year 1	2003	103		103
Year 2	2004	186		186
Year 3	2005	185		185
Year 4	2006	178		178
Year 5	2007	198		198

[1] ***Units of measure*** *(AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in Table 2-3.*

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

NOTES: Units of measure are million gallons (MG).

SB X7-7 Table 4-A: Volume Entering the Distribution System(s)
Complete one table for each source.

Name of Source	Tahoe City Well #3 (Tahoe City)
This water source is:	
☑	The supplier's own water source
☐	A purchased or imported source

Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1998	316		316
Year 2	1999	292		292
Year 3	2000	172		172
Year 4	2001	201		201
Year 5	2002	202		202
Year 6	2003	253		253
Year 7	2004	180		180
Year 8	2005	181		181
Year 9	2006	176		176
Year 10	2007	194		194
Year 11	0			0
Year 12	0			0
Year 13	0			0
Year 14	0			0
Year 15	0			0
5 Year Baseline - Water into Distribution System				
Year 1	2003	253		253
Year 2	2004	180		180
Year 3	2005	181		181
Year 4	2006	176		176
Year 5	2007	194		194

[1] ***Units of measure*** *(AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in Table 2-3.*

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

NOTES: Units of measure are million gallons (MG).

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

Complete one table for each source.

Name of Source	Highlands Well (Tahoe City)
This water source is:	
☑	The supplier's own water source
☐	A purchased or imported source

Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1998	18		18
Year 2	1999	19		19
Year 3	2000	37		37
Year 4	2001	52		52
Year 5	2002	55		55
Year 6	2003	50		50
Year 7	2004	49		49
Year 8	2005	49		49
Year 9	2006	37		37
Year 10	2007	37		37
Year 11	0			0
Year 12	0			0
Year 13	0			0
Year 14	0			0
Year 15	0			0
5 Year Baseline - Water into Distribution System				
Year 1	2003	50		50
Year 2	2004	49		49
Year 3	2005	49		49
Year 4	2006	37		37
Year 5	2007	37		37

[1] ***Units of measure*** *(AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in Table 2-3.*

[2] ***Meter Error Adjustmen*** *t - See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES: Units of measure are million gallons (MG).

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

Complete one table for each source.

Name of Source	Tahoe Tavern Well (Tahoe City)
This water source is:	
☑	The supplier's own water source
☐	A purchased or imported source

Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1998	95		95
Year 2	1999	66		66
Year 3	2000	76		76
Year 4	2001	77		77
Year 5	2002	74		74
Year 6	2003	70		70
Year 7	2004	75		75
Year 8	2005	75		75
Year 9	2006	60		60
Year 10	2007	53		53
Year 11	0			0
Year 12	0			0
Year 13	0			0
Year 14	0			0
Year 15	0			0
5 Year Baseline - Water into Distribution System				
Year 1	2003	70		70
Year 2	2004	75		75
Year 3	2005	75		75
Year 4	2006	60		60
Year 5	2007	53		53

[1] ***Units of measure*** *(AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in Table 2-3.*

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

NOTES: Units of measure are million gallons (MG).

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

Complete one table for each source.

Name of Source	Riley Springs (Alpine Peaks)
This water source is:	
☑	The supplier's own water source
☐	A purchased or imported source

Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1998	9		9
Year 2	1999	11		11
Year 3	2000	10		10
Year 4	2001	12		12
Year 5	2002	13		13
Year 6	2003	13		13
Year 7	2004	13		13
Year 8	2005	14		14
Year 9	2006	15		15
Year 10	2007	18		18
Year 11	0			0
Year 12	0			0
Year 13	0			0
Year 14	0			0
Year 15	0			0
5 Year Baseline - Water into Distribution System				
Year 1	2003	13		13
Year 2	2004	13		13
Year 3	2005	14		14
Year 4	2006	15		15
Year 5	2007	18		18

[1] ***Units of measure*** *(AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in Table 2-3.*

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

NOTES: Units of measure are million gallons (MG).

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

Complete one table for each source.

Name of Source	Crystal Way Well (McKinney-Quail)
This water source is:	
☑	The supplier's own water source
☐	A purchased or imported source

Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1998	76		76
Year 2	1999	86		86
Year 3	2000	95		95
Year 4	2001	93		93
Year 5	2002	89		89
Year 6	2003	80		80
Year 7	2004	60		60
Year 8	2005	42		42
Year 9	2006	37		37
Year 10	2007	32		32
Year 11	0			0
Year 12	0			0
Year 13	0			0
Year 14	0			0
Year 15	0			0
5 Year Baseline - Water into Distribution System				
Year 1	2003	80		80
Year 2	2004	60		60
Year 3	2005	42		42
Year 4	2006	37		37
Year 5	2007	32		32

[1] ***Units of measure*** *(AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in Table 2-3.*

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

NOTES: Units of measure are million gallons (MG).

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

Complete one table for each source.

Name of Source	Chambers Landing Intake (McKinney-Quail)
This water source is:	
☑	The supplier's own water source
☐	A purchased or imported source

Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1998	0		0
Year 2	1999	0		0
Year 3	2000	0		0
Year 4	2001	0		0
Year 5	2002	0		0
Year 6	2003	0		0
Year 7	2004	19		19
Year 8	2005	32		32
Year 9	2006	25		25
Year 10	2007	38		38
Year 11	0			0
Year 12	0			0
Year 13	0			0
Year 14	0			0
Year 15	0			0
5 Year Baseline - Water into Distribution System				
Year 1	2003	0		0
Year 2	2004	19		19
Year 3	2005	32		32
Year 4	2006	25		25
Year 5	2007	38		38

[1] ***Units of measure*** *(AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in Table 2-3.*

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

NOTES: Units of measure are million gallons (MG).

SB X7-7 Table 4-A: Volume Entering the Distribution System(s)
Complete one table for each source.

Name of Source	Rubicon Well #1 (Rubicon)
This water source is:	
☑	The supplier's own water source
☐	A purchased or imported source

Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1998	22		22
Year 2	1999	35		35
Year 3	2000	64		64
Year 4	2001	65		65
Year 5	2002	62		62
Year 6	2003	65		65
Year 7	2004	69		69
Year 8	2005	69		69
Year 9	2006	57		57
Year 10	2007	53		53
Year 11	0			0
Year 12	0			0
Year 13	0			0
Year 14	0			0
Year 15	0			0
5 Year Baseline - Water into Distribution System				
Year 1	2003	65		65
Year 2	2004	69		69
Year 3	2005	69		69
Year 4	2006	57		57
Year 5	2007	53		53

[1] ***Units of measure*** *(AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in Table 2-3.*

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

NOTES: Units of measure are million gallons (MG).

SB X7-7 Table 4-A: Volume Entering the Distribution System(s)
Complete one table for each source.

Name of Source	Rubicon Well #2 (Rubicon)
This water source is:	
☑	The supplier's own water source
☐	A purchased or imported source

Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1998	53		53
Year 2	1999	41		41
Year 3	2000	15		15
Year 4	2001	31		31
Year 5	2002	25		25
Year 6	2003	17		17
Year 7	2004	17		17
Year 8	2005	17		17
Year 9	2006	20		20
Year 10	2007	23		23
Year 11	0			0
Year 12	0			0
Year 13	0			0
Year 14	0			0
Year 15	0			0
5 Year Baseline - Water into Distribution System				
Year 1	2003	17		17
Year 2	2004	17		17
Year 3	2005	17		17
Year 4	2006	20		20
Year 5	2007	23		23

[1] ***Units of measure*** *(AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in Table 2-3.*

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

NOTES: Units of measure are million gallons (MG).

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

Complete one table for each source.

Name of Source	Rubicon Well #3 (Rubicon)
This water source is:	
☑	The supplier's own water source
☐	A purchased or imported source

Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1998	0.0		0.0
Year 2	1999	0.0		0.0
Year 3	2000	0.0		0.0
Year 4	2001	0.0		0.0
Year 5	2002	0.3		0.3
Year 6	2003	1.3		1.3
Year 7	2004	0.4		0.4
Year 8	2005	0.4		0.4
Year 9	2006	0.0		0.0
Year 10	2007	0.9		0.9
Year 11	0			0
Year 12	0			0
Year 13	0			0
Year 14	0			0
Year 15	0			0
5 Year Baseline - Water into Distribution System				
Year 1	2003	1.3		1.3
Year 2	2004	0.4		0.4
Year 3	2005	0.4		0.4
Year 4	2006	0.0		0.0
Year 5	2007	0.9		0.9

[1] ***Units of measure*** *(AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in Table 2-3.*

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

NOTES: Units of measure are million gallons (MG).

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

Complete one table for each source.

Name of Source	Olympic Valley Public Service District
This water source is:	
☐	The supplier's own water source
☑	A purchased or imported source

Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1998	6		6
Year 2	1999	6		6
Year 3	2000	6		6
Year 4	2001	6		6
Year 5	2002	4		4
Year 6	2003	5		5
Year 7	2004	5		5
Year 8	2005	5		5
Year 9	2006	4		4
Year 10	2007	4		4
Year 11	0			0
Year 12	0			0
Year 13	0			0
Year 14	0			0
Year 15	0			0
5 Year Baseline - Water into Distribution System				
Year 1	2003	5		5
Year 2	2004	5		5
Year 3	2005	5		5
Year 4	2006	4		4
Year 5	2007	4		4

[1] ***Units of measure*** *(AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in Table 2-3.*

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

NOTES: Units of measure are million gallons (MG).

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

Complete one table for each source.

Name of Source	Silver Street Well (Madden Creek)
This water source is:	
☑	The supplier's own water source
☐	A purchased or imported source

Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1998	55		55
Year 2	1999	55		55
Year 3	2000	55		55
Year 4	2001	55		55
Year 5	2002	55		55
Year 6	2003	55		55
Year 7	2004	54		54
Year 8	2005	52		52
Year 9	2006	61		61
Year 10	2007	66		66
Year 11	0			0
Year 12	0			0
Year 13	0			0
Year 14	0			0
Year 15	0			0
5 Year Baseline - Water into Distribution System				
Year 1	2003	55		55
Year 2	2004	54		54
Year 3	2005	52		52
Year 4	2006	61		61
Year 5	2007	66		66

[1] ***Units of measure*** *(AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in Table 2-3.*

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

NOTES: Units of measure are million gallons (MG). Records not available prior to 2003. 2003 volume entering distribution system assumed for years prior to 2003.

SB X7-7 Table 4-A: Volume Entering the Distribution System(s)
Complete one table for each source.

Name of Source	Elm Steet Well (Tahoe Cedars)
This water source is:	
☑	The supplier's own water source
☐	A purchased or imported source

Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1998	149		149
Year 2	1999	149		149
Year 3	2000	149		149
Year 4	2001	149		149
Year 5	2002	149		149
Year 6	2003	149		149
Year 7	2004	152		152
Year 8	2005	148		148
Year 9	2006	152		152
Year 10	2007	155		155
Year 11	0			0
Year 12	0			0
Year 13	0			0
Year 14	0			0
Year 15	0			0
5 Year Baseline - Water into Distribution System				
Year 1	2003	149		149
Year 2	2004	152		152
Year 3	2005	148		148
Year 4	2006	152		152
Year 5	2007	155		155

[1] ***Units of measure*** *(AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in Table 2-3.*

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

NOTES: Units of measure are million gallons (MG). Records not available prior to 2003. 2003 volume entering distribution system assumed for years prior to 2003.

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

Complete one table for each source.

Name of Source	Timberland Well (Timberland)
This water source is:	
☑	The supplier's own water source
☐	A purchased or imported source

Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1998	14		14
Year 2	1999	14		14
Year 3	2000	14		14
Year 4	2001	14		14
Year 5	2002	14		14
Year 6	2003	14		14
Year 7	2004	14		14
Year 8	2005	14		14
Year 9	2006	14		14
Year 10	2007	14		14
Year 11	0			0
Year 12	0			0
Year 13	0			0
Year 14	0			0
Year 15	0			0
5 Year Baseline - Water into Distribution System				
Year 1	2003	14		14
Year 2	2004	14		14
Year 3	2005	14		14
Year 4	2006	14		14
Year 5	2007	14		14

[1] ***Units of measure*** *(AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in Table 2-3.*

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

NOTES: Units of measure are million gallons (MG). Records not available prior to 2018. 2018 volume entering distribution system assumed for years prior to 2018.

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

Baseline Year *Fm SB X7-7 Table 3*		**Surface Reservoir Augmentation**					**Groundwater Recharge**			**Total Deductible Volume of Indirect Recycled Water Entering the Distribution System**
		Volume Discharged from Reservoir for Distribution System Delivery [1]	Percent Recycled Water	Recycled Water Delivered to Treatment Plant	Transmission/ Treatment Loss [1]	Recycled Volume Entering Distribution System from Surface Reservoir Augmentation	Recycled Water Pumped by Utility [1, 2]	Transmission/ Treatment Losses [1]	Recycled Volume Entering Distribution System from Groundwater Recharge	
10-15 Year Baseline - Indirect Recycled Water Use										
Year 1	1998			-		-			-	-
Year 2	1999			-		-			-	-
Year 3	2000			-		-			-	-
Year 4	2001			-		-			-	-
Year 5	2002			-		-			-	-
Year 6	2003			-		-			-	-
Year 7	2004			-		-			-	-
Year 8	2005			-		-			-	-
Year 9	2006			-		-			-	-
Year 10	2007			-		-			-	-
Year 11	0			-		-			-	-
Year 12	0			-		-			-	-
Year 13	0			-		-			-	-
Year 14	0			-		-			-	-
Year 15	0			-		-			-	-
5 Year Baseline - Indirect Recycled Water Use										
Year 1	2003			-		-			-	-
Year 2	2004			-		-			-	-
Year 3	2005			-		-			-	-
Year 4	2006			-		-			-	-
Year 5	2007			-		-			-	-

[1] ***Units of measure*** *(AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in Table 2-3.*

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

NOTES:

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

SB X7-7 Table 4-C.1: Process Water Deduction Eligibility					
Criteria 1 Industrial water use is equal to or greater than 12% of gross water use					
Baseline Year *Fm SB X7-7 Table 3*		Gross Water Use Without Process Water Deduction	Industrial Water Use *	Percent Industrial Water	**Eligible for Exclusion Y/N**
10 to 15 Year Baseline - Process Water Deduction Eligibility					
Year 1	1998	835		0%	NO
Year 2	1999	846		0%	NO
Year 3	2000	871		0%	NO
Year 4	2001	934		0%	NO
Year 5	2002	898		0%	NO
Year 6	2003	846		0%	NO
Year 7	2004	866		0%	NO
Year 8	2005	860		0%	NO
Year 9	2006	813		0%	NO
Year 10	2007	857		0%	NO
Year 11	0	-			NO
Year 12	0	-			NO
Year 13	0	-			NO
Year 14	0	-			NO
Year 15	0	-			NO
5 Year Baseline - Process Water Deduction Eligibility					
Year 1	2003	846		0%	NO
Year 2	2004	866		0%	NO
Year 3	2005	860		0%	NO
Year 4	2006	811		0%	NO
Year 5	2007	857		0%	NO
*** Units of Measure** *(AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in Table 2-3.*					
NOTES:					

SB X7-7 Table 4-C.2: Process Water Deduction Eligibility					
Criteria 2 Industrial water use is equal to or greater than 15 GPCD					
Baseline Year *Fm SB X7-7 Table 3*		Industrial Water Use *	Population	Industrial GPCD	**Eligible for Exclusion Y/N**
10 to 15 Year Baseline - Process Water Deduction Eligibility					
Year 1	1998		8,028	-	NO
Year 2	1999		8,028	-	NO
Year 3	2000		8,028	-	NO
Year 4	2001		8,028	-	NO
Year 5	2002		8,028	-	NO
Year 6	2003		8,028	-	NO
Year 7	2004		8,028	-	NO
Year 8	2005		8,028	-	NO
Year 9	2006		8,028	-	NO
Year 10	2007		8,028	-	NO
Year 11	0		-		NO
Year 12	0		-		NO
Year 13	0		-		NO
Year 14	0		-		NO
Year 15	0		-		NO
5 Year Baseline - Process Water Deduction Eligibility					
Year 1	2003		8,028	-	NO
Year 2	2004		8,028	-	NO
Year 3	2005		8,028	-	NO
Year 4	2006		8,028	-	NO
Year 5	2007		8,028	-	NO
**** Units of Measure*** *(AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in Table 2-3.*					
NOTES:					

SB X7-7 Table 4-C.3: Process Water Deduction Eligibility							
Criteria 3 Non-industrial use is equal to or less than 120 GPCD							
Baseline Year *Fm SB X7-7 Table 3*		Gross Water Use Without Process Water Deduction *Fm SB X7-7 Table 4*	Industrial Water Use *	Non-industrial Water Use	Population *Fm SB X7-7 Table 3*	Non-Industrial GPCD	**Eligible for Exclusion Y/N**
10 to 15 Year Baseline - Process Water Deduction Eligibility							
Year 1	1998	835		835	8,028	285	NO
Year 2	1999	846		846	8,028	289	NO
Year 3	2000	871		871	8,028	297	NO
Year 4	2001	934		934	8,028	319	NO
Year 5	2002	898		898	8,028	307	NO
Year 6	2003	846		846	8,028	289	NO
Year 7	2004	866		866	8,028	296	NO
Year 8	2005	860		860	8,028	294	NO
Year 9	2006	813		813	8,028	278	NO
Year 10	2007	857		857	8,028	292	NO
Year 11	0	-		-	-		NO
Year 12	0	-		-	-		NO
Year 13	0	-		-	-		NO
Year 14	0	-		-	-		NO
Year 15	0	-		-	-		NO
5 Year Baseline - Process Water Deduction Eligibility							
Year 1	2003	846		846	8,028	289	NO
Year 2	2004	866		866	8,028	296	NO
Year 3	2005	860		860	8,028	294	NO
Year 4	2006	811		811	8,028	277	NO
Year 5	2007	857		857	8,028	292	NO
**** Units of Measure*** *(AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in Table 2-3.*							
NOTES:							

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

Criteria 4

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

SELECT ONE

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

☐ **1. IRWM DAC Mapping tool https://gis.water.ca.gov/app/dacs/**

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

☐ **2. 2010 Median Income**

California Median Household Income		Service Area Median Household Income	Percentage of Statewide Average	**Eligible for Exclusion? Y/N**
2010	$60,883		0%	YES

NOTES:

SB X7-7 Table 4-D: Process Water Deduction - Volume *Complete*						
a separate table for each industrial customer with a process water exclusion						
Name of Industrial Customer		*Enter Name of Industrial Customer 1*				
Baseline Year *Fm SB X7-7 Table 3*		Industrial Customer's Total Water Use *	Total Volume Supplied by Water Agency*	% of Water Supplied by Water Agency	Customer's Total Process Water Use*	Volume of Process Water Eligible for Exclusion for this Customer
10 to 15 Year Baseline - Process Water Deduction						
Year 1	1998					-
Year 2	1999					-
Year 3	2000					-
Year 4	2001					-
Year 5	2002					-
Year 6	2003					-
Year 7	2004					-
Year 8	2005					-
Year 9	2006					-
Year 10	2007					-
Year 11	0					-
Year 12	0					-
Year 13	0					-
Year 14	0					-
Year 15	0					-
5 Year Baseline - Process Water Deduction						
Year 1	2003					-
Year 2	2004					-
Year 3	2005					-
Year 4	2006					-
Year 5	2007					-
**** Units of Measure*** *(AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in Table 2-3.*						
NOTES:						

SB X7-7 Table 5: Baseline Gallons Per Capita Per Day (GPCD)				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Annual Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use (GPCD)
10 to 15 Year Baseline GPCD				
Year 1	1998	8,028	835	285
Year 2	1999	8,028	846	289
Year 3	2000	8,028	871	297
Year 4	2001	8,028	934	319
Year 5	2002	8,028	898	307
Year 6	2003	8,028	846	289
Year 7	2004	8,028	866	296
Year 8	2005	8,028	860	294
Year 9	2006	8,028	813	278
Year 10	2007	8,028	857	292
Year 11	0	-	-	
Year 12	0	-	-	
Year 13	0	-	-	
Year 14	0	-	-	
Year 15	0	-	-	
10-15 Year Average Baseline GPCD				**294**
5 Year Baseline GPCD				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use
Year 1	2003	8,028	846	289
Year 2	2004	8,028	866	296
Year 3	2005	8,028	860	294
Year 4	2006	8,028	811	277
Year 5	2007	8,028	857	292
5 Year Average Baseline GPCD				**289**

NOTES: Units of measure are million gallons (MG).

SB X7-7 Table 6: Baseline GPCD *From Table SB X7-7 Table 5*	*Summary*
10-15 Year Baseline GPCD	294
5 Year Baseline GPCD	289
NOTES:	

SB X7-7 Table 7: 2020 Target Method *Select Only One*		
Target Method		**Supporting Tables**
☑	Method 1	SB X7-7 Table 7A
☐	Method 2	SB X7-7 Tables 7B, 7C, and 7D
☐	Method 3	SB X7-7 Table 7-E
☐	Method 4	Method 4 Calculator *Located in the WUE Data Portal at wuedata.water.ca.gov* Resources *button*
NOTES:		

SB X7-7 Table 7-A: Target Method 1 20% Reduction	
10-15 Year Baseline GPCD	**2020 Target GPCD**
294	**236**
NOTES:	

SB X7-7 Table 7-B: Target Method 2

Target Landscape Water Use

Units of Measure		Million Gallons
Reference Evapotranspiration Rate (ET0)[1] for Service Area (inches/year)		
Acres of Irrigated Landscape and Applicable ETAF	**Acres**	**Water Use[3]**
Acres of landscape installed pre-2010 (ETAF 0.8)[2]		-
Acres of landscape installed post-2010 (ETAF 0.7)[2]		-
Acres of residential landscape installed post 2015 (ETAF .55)		-
Acres of CII landscape installed post 2015 (ETAF .45)		-
Acres of Special Landscape Area (ETAF 1.0)[2]		-
Target Landscape Water Use for 2020		**-**

[1] ETo information can be found at https://cimis.water.ca.gov. If the water supplier's service area spans more than one ETo Zone, the supplier will use multiple versions of SB X7-7 Table 7B for each ETo zone that they serve.

[2] ETAF - Evapotranspiration Adjustment Factor. Refer to the Model Water Efficient Landscape Ordinance at https://water.ca.gov/Programs/Water-Use-And-Efficiency/Model-Water-Efficient-Landscape-Ordinance

[3] Water Use Unit of Measure (AF, MG, CCF) is automatically converted to the units selected by the user in Table 0.

NOTES

SB X7-7 Table 7-C: Target Method 2

Target CII Water Use

Baseline Year *Fm SB X7-7 Table 3*		CII Water Use [1,2]	Process Water Exclusion (Optional) *Fm SB X7-7 Table 4*	CII Water Use Minus Process Water	Population *Fm SB X7-7 Table 3*	CII GPCD
Unit of Measure						**Million Gallons**
Year 1	1998		0	0	8,028	0
Year 2	1999		0	0	8,028	0
Year 3	2000		0	0	8,028	0
Year 4	2001		0	0	8,028	0
Year 5	2002		0	0	8,028	0
Year 6	2003		0	0	8,028	0
Year 7	2004		0	0	8,028	0
Year 8	2005		0	0	8,028	0
Year 9	2006		0	0	8,028	0
Year 10	2007		0	0	8,028	0
Year 11	0		0	0	-	
Year 12	0		0	0	-	
Year 13	0		0	0	-	
Year 14	0		0	0	-	
Year 15	0		0	0	-	
Average Annual 10 to 15 Year Baseline CII Water Use (GPCD)						0
10% Reduction						0.0
2020 Target CII Water Use						**0**

[1] *CII water use for each year of the baseline period must be provided by the user.*

[2] *Units of measure (AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in Table 2-3.*

NOTES

SB X7-7 Table 7-D: Target Method 2 Summary		
2020 Population	Enter 2020 Population	
Sector	**Volume** **Million Gallons**	**GPCD**
Target Indoor Residential Water Use		55
Target Landscape Water Use* *From SB X7-7 Table 7-B*	-	
Target CII Water Use *From SB X7-7 Table 7-C*		0
2020 Target	-	**55**
**Additional rows may be added for Target Landscape Water Use if the service area spans more than one Eto Zone.*		
NOTES:		

SB X7-7 Table 7-E: Target Method 3				
Agency May Select More Than One as Applicable	Percentage of Service Area in This Hydrological Region	Hydrologic Region	"2020 Plan" Regional Targets	Method 3 Regional Targets (95%)
☐		North Coast	137	130
☐		North Lahontan	173	164
☐		Sacramento River	176	167
☐		San Francisco Bay	131	124
☐		San Joaquin River	174	165
☐		Central Coast	123	117
☐		Tulare Lake	188	179
☐		South Lahontan	170	162
☐		South Coast	149	142
☐		Colorado River	211	200
			2020 Target *(If more than one region is selected, this value is calculated.)*	**0**
NOTES:				

SB X7-7 Table 7-F: Confirm Minimum Reduction for 2020 Target					
5 Year Baseline GPCD *From SB X7-7 Table 5*	Maximum 2020 Target[1]	**Calculated 2020 Target [2]**			**Confirmed 2020 Target[4]**
		As calculated by supplier in this SB X7-7 Verification Form	**Special Situations[3]**		
			Prorated 2020 Target	Population Weighted Average 2020 Target	
289	275	236			**236**

[1] ***Maximum 2020 Target*** *is 95% of the 5 Year Baseline GPCD except for suppliers at or below 100 GPCD.*

[2] ***Calculated 2020 Target*** *is the target calculated by the Supplier based on the selected Target Method, see SB X7-7 Table 7 and corresponding tables for agency's calculated target. Supplier may only enter one calculated target.*

[3] ***Prorated targets and population weighted target*** *are allowed for special situations only. These situations are described in Appendix P, Section P.3*

[4] ***Confirmed Target*** *is the lesser of the Calculated 2020 Target (C5, D5, or E5) or the Maximum 2020 Target (Cell B5)*

NOTES:

SB X7-7 Table 8 refers to the 2015 Interim Target and is not needed for the 2020 UWMP.

SB X7-7 Table 9 refers to 2020 compliance and is found in the SB X7-7 2020 Compliance Form

SB X7-7 Table 0: Units of Measure Used in 2020 UWMP* *(select one from the drop down list)*
Million Gallons
**The unit of measure must be consistent throughout the UWMP, as reported in Submittal Table 2-3.*
NOTES:

SB X7-7 Table 1 pertains to baselines and targets and is not used in the SB X7-7 2020 Compliance Form.

SB X7-7 Table 2: Method for 2020 Population Estimate	
Method Used to Determine 2020 Population (may check more than one)	
☐	**1. Department of Finance** (DOF) or **American Community Survey** (ACS)
☐	**2. Persons-per-Connection Method**
☐	**3. DWR Population Tool**
☑	**4. Other** DWR recommends pre-review

NOTES: The TCPUD has utilized a variation of the persons-per-connection population estimate methodology to determine the population. TCPUD calculated the 2020 population based on residential occupancy from 2018-2020. The number of occupied units (accounts with monthly demand greater than 1,000 gallons) for the metered systems (Tahoe City Main, Rubicon, McKinney/Quail, Alpine Peaks, and Tahoe-Truckee Forest Tract) plus the estimated number of occupied units for the unmetered systems (Madden Creek, Tahoe Cedars, and Timberland) was multiplied by the average residential occupancy of 2.1 persons per (occupied) unit based on Placer County 2020 Census Tracts 201.04, 221, 222, 223, and El Dorado County 2020 Census Tracts 320.01, 320.02.

SB X7-7 Table 3: 2020 Service Area Population	
2020 Compliance Year Population	
2020	8,028
NOTES:	

SB X7-7 Table 4: 2020 Gross Water Use							
Compliance Year 2020	**2020 Volume Into Distribution System** *This column will remain blank until SB X7-7 Table 4-A is completed.*	**2020 Deductions**					**2020 Gross Water Use**
		Exported Water *	**Change in Dist. System Storage*** (+/-)	**Indirect Recycled Water** *This column will remain blank until SB X7-7 Table 4-B is completed.*	**Water Delivered for Agricultural Use***	**Process Water** *This column will remain blank until SB X7-7 Table 4-D is completed.*	
	594	28	-	-	-	-	**566**

*** Units of measure (AF, MG , or CCF)** must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.

NOTES: Units of measure are million gallons (MG).

SB X7-7 Table 4-A: 2020 Volume Entering the Distribution System(s), Meter Error Adjustment

Complete one table for each source.

Name of Source	Olympic Valley Public Service District
This water source is *(check one)* **:**	
☐	The supplier's own water source
☑	A purchased or imported source

Compliance Year 2020	Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
	2	-	2

[1] ***Units of measure (AF, MG , or CCF)*** *must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.* [2] ***Meter Error Adjustment*** *- See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES: Units of measure are million gallons (MG).

SB X7-7 Table 4-A: 2020 Volume Entering the Distribution System(s) Meter Error Adjustment

Complete one table for each source.

Name of Source	Highland Wells (Tahoe City)
This water source is *(check one)* **:**	
☑	The supplier's own water source
☐	A purchased or imported source

Compliance Year 2020	Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
	49		49

[1] ***Units of measure (AF, MG , or CCF)*** *must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.* [2] ***Meter Error Adjustment*** *- See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES: Units of measure are million gallons (MG).

SB X7-7 Table 4-A: 2020 Volume Entering the Distribution System(s), Meter Error Adjustment

Complete one table for each source.

Name of Source	Tahoe City Well #2 (Tahoe City)
This water source is *(check one)* **:**	
☑	The supplier's own water source
☐	A purchased or imported source

Compliance Year 2020	Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
	64		64

[1] ***Units of measure (AF, MG , or CCF)*** *must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.* [2] ***Meter Error Adjustment*** *- See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES: Units of measure are million gallons (MG).

SB X7-7 Table 4-A: 2020 Volume Entering the Distribution System(s), Meter Error Adjustment

Complete one table for each source.

Name of Source	Tahoe City Well #3 (Tahoe City)
This water source is *(check one)* **:**	
☑	The supplier's own water source
☐	A purchased or imported source

Compliance Year 2020	Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
	70		70

[1] ***Units of measure (AF, MG , or CCF)*** *must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.* [2] ***Meter Error Adjustment*** *- See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES: Units of measure are million gallons (MG).

SB X7-7 Table 4-A: 2020 Volume Entering the Distribution System(s), Meter Error Adjustment

Complete one table for each source.

Name of Source	Tahoe City Well #4 (Tahoe City)
This water source is *(check one)* **:**	
☑	The supplier's own water source
☐	A purchased or imported source

Compliance Year 2020	Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
	102		102

[1] ***Units of measure (AF, MG , or CCF)*** *must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.* [2] ***Meter Error Adjustment*** *- See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES: Units of measure are million gallons (MG).

SB X7-7 Table 4-A: 2020 Volume Entering the Distribution System(s), Meter Error Adjustment

Complete one table for each source.

Name of Source	Tahoe Tavern Well (Tahoe City)
This water source is *(check one)* **:**	
☑	The supplier's own water source
☐	A purchased or imported source

Compliance Year 2020	Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
	35		35

[1] ***Units of measure (AF, MG , or CCF)*** *must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.* [2] ***Meter Error Adjustment*** *- See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES: Units of measure are million gallons (MG).

SB X7-7 Table 4-A: 2020 Volume Entering the Distribution System(s), Meter Error Adjustment

Complete one table for each source.

Name of Source	Rubicon Well #1 (Rubicon)
This water source is *(check one)* **:**	
☑	The supplier's own water source
☐	A purchased or imported source

Compliance Year 2020	Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
	35		35

[1] ***Units of measure (AF, MG , or CCF)*** *must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.* [2] ***Meter Error Adjustment*** *- See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES: Units of measure are million gallons (MG).

SB X7-7 Table 4-A: 2020 Volume Entering the Distribution System(s), Meter Error Adjustment

Complete one table for each source.

Name of Source	Rubicon Well #2 (Rubicon)
This water source is *(check one)* **:**	
☑	The supplier's own water source
☐	A purchased or imported source

Compliance Year 2020	Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
	2		2

[1] ***Units of measure (AF, MG , or CCF)*** *must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.* [2] ***Meter Error Adjustment*** *- See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES: Units of measure are million gallons (MG).

SB X7-7 Table 4-A: 2020 Volume Entering the Distribution System(s), Meter Error Adjustment

Complete one table for each source.

Name of Source	Rubicon Well #3 (Rubicon)
This water source is *(check one)* **:**	
☑	The supplier's own water source
☐	A purchased or imported source

Compliance Year 2020	Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
	3		3

[1] ***Units of measure (AF, MG , or CCF)*** *must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.* [2] ***Meter Error Adjustment*** *- See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES: Units of measure are million gallons (MG).

SB X7-7 Table 4-A: 2020 Volume Entering the Distribution System(s), Meter Error Adjustment

Complete one table for each source.

Name of Source	Crystal Way Well (McKinney-Quail)
This water source is *(check one)* **:**	
☑	The supplier's own water source
☐	A purchased or imported source

Compliance Year 2020	Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
	30		30

[1] ***Units of measure (AF, MG , or CCF)*** *must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.* [2] ***Meter Error Adjustment*** *- See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES: Units of measure are million gallons (MG).

SB X7-7 Table 4-A: 2020 Volume Entering the Distribution System(s), Meter Error Adjustment

Complete one table for each source.

Name of Source	Riley Springs (Alpine Peaks)
This water source is *(check one)* **:**	
☑	The supplier's own water source
☐	A purchased or imported source

Compliance Year 2020	Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
	6		6

[1] ***Units of measure (AF, MG , or CCF)*** *must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.* [2] ***Meter Error Adjustment*** *- See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES: Units of measure are million gallons (MG).

SB X7-7 Table 4-A: 2020 Volume Entering the Distribution System(s), Meter Error Adjustment

Complete one table for each source.

Name of Source	Silver Street Well (Madden Creek)
This water source is *(check one)* **:**	
☑	The supplier's own water source
☐	A purchased or imported source

Compliance Year 2020	Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
	37		37

[1] ***Units of measure (AF, MG , or CCF)*** *must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.* [2] ***Meter Error Adjustment*** *- See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES: Units of measure are million gallons (MG).

SB X7-7 Table 4-A: 2020 Volume Entering the Distribution System(s), Meter Error Adjustment

Complete one table for each source.

Name of Source	Elm Steet Well (Tahoe Cedars)

This water source is *(check one)* **:**

☑	The supplier's own water source
☐	A purchased or imported source

Compliance Year 2020	Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
	123		123

[1] ***Units of measure (AF, MG , or CCF)*** *must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.* [2] ***Meter Error Adjustment*** *- See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES: Units of measure are million gallons (MG).

SB X7-7 Table 4-A: 2020 Volume Entering the Distribution System(s), Meter Error Adjustment

Complete one table for each source.

Name of Source	Timberland Well (Timberland)

This water source is *(check one)* **:**

☑	The supplier's own water source
☐	A purchased or imported source

Compliance Year 2020	Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
	15		15

[1] ***Units of measure (AF, MG , or CCF)*** *must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.* [2] ***Meter Error Adjustment*** *- See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES: Units of measure are million gallons (MG).

SB X7-7 Table 4-A: 2020 Volume Entering the Distribution System(s), Meter Error Adjustment

Complete one table for each source.

Name of Source	Chambers Landing Intake (McKinney-Quail)

This water source is *(check one)* **:**

☑	The supplier's own water source
☐	A purchased or imported source

Compliance Year 2020	Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
	20		20

[1] ***Units of measure (AF, MG , or CCF)*** *must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.* [2] ***Meter Error Adjustment*** *- See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES: Units of measure are million gallons (MG).

SB X7-7 Table 4-B: 2020 Indirect Recycled Water Use Deduction *(For use only by agencies that are deducting indirect recycled water)*

2020 Compliance Year	2020 Surface Reservoir Augmentation					2020 Groundwater Recharge			Total Deductible Volume of Indirect Recycled Water Entering the Distribution System
	Volume Discharged from Reservoir for Distribution System Delivery[1]	Percent Recycled Water	Recycled Water Delivered to Treatment Plant	Transmission/ Treatment Loss[1]	Recycled Volume Entering Distribution System from Surface Reservoir Augmentation	Recycled Water Pumped by Utility[1,2]	Transmission/ Treatment Losses[1]	Recycled Volume Entering Distribution System from Groundwater Recharge	
			-		-			-	-

[1] ***Units of measure (AF, MG , or CCF)*** *must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.*

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

SB X7-7 Table 4-C: 2020 Process Water Deduction Eligibility (For use only by agencies that are deducting process water) Choose Only One	
☐	**Criteria 1**- Industrial water use is equal to or greater than 12% of gross water use. Complete SB X7-7 Table 4-C.1
☐	**Criteria 2** - Industrial water use is equal to or greater than 15 GPCD. Complete SB X7-7 Table 4-C.2
☐	**Criteria 3** - Non-industrial use is equal to or less than 120 GPCD. Complete SB X7-7 Table 4-C.3
☐	**Criteria 4** - Disadvantaged Community. Complete SB x7-7 Table 4-C.4
NOTES:	

SB X7-7 Table 4-C.1: 2020 Process Water Deduction Eligibility *(For use only by agencies that are deducting process water using Criteria 1)*

Criteria 1

Industrial water use is equal to or greater than 12% of gross water use

2020 Compliance Year	2020 Gross Water Use Without Process Water Deduction	2020 Industrial Water Use	Percent Industrial Water	**Eligible for Exclusion Y/N**
	566		0%	NO

NOTES: Units of measure are million gallons (MG).

SB X7-7 Table 4-C.2: 2020 Process Water Deduction Eligibility *(For use only by agencies that are deducting process water using Criteria 2)*

Criteria 2
Industrial water use is equal to or greater than 15 GPCD

2020 Compliance Year	2020 Industrial Water Use	2020 Population	2020 Industrial GPCD	**Eligible for Exclusion Y/N**
		8,028	-	NO

NOTES:

SB X7-7 Table 4-C.3: 2020 Process Water Deduction Eligibility *(For use only*
by agencies that are deducting process water using Criteria 3)

Criteria 3
Non-industrial use is equal to or less than 120 GPCD

2020 Compliance Year	2020 Gross Water Use Without Process Water Deduction *Fm SB X7-7 Table 4*	2020 Industrial Water Use	2020 Non-industrial Water Use	2020 Population *Fm SB X7-7 Table 3*	Non-Industrial GPCD	**Eligible for Exclusion Y/N**
	566		566	8,028	193	NO

NOTES: Units of measure are million gallons (MG).

SB X7-7 Table 4-C.4: 2020 Process Water Deduction Eligibility ***(For** use only by agencies that are deducting process water using Criteria 4)*

Criteria 4

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

SELECT ONE

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

1. IRWM DAC Mapping tool https://gis.water.ca.gov/app/dacs/

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

2. 2020 Median Income

	California Median Household Income*		Service Area Median Household Income	Percentage of Statewide Average	**Eligible for Exclusion? Y/N**
☐	**2020**	**$75,235**		0%	YES

*California median household income 2015 -2019 as reported in US Census Bureau QuickFacts.

NOTES

SB X7-7 Table 4-D: 2020 Process Water Deduction - Volume *Complete a separate table for each industrial customer with a process water exclusion*					
Name of Industrial Customer	*Enter Name of Industrial Customer 1*				
Compliance Year 2020	Industrial Customer's Total Water Use *	Total Volume Provided by Supplier*	% of Water Provided by Supplier	Customer's Total Process Water Use*	Volume of Process Water Eligible for Exclusion for this Customer
					-
*** Units of measure (AF, MG , or CCF)** must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.					
NOTES:					

SB X7-7 Table 5: 2020 Gallons Per Capita Per Day (GPCD)		
2020 Gross Water *Fm SB X7-7 Table 4*	**2020 Population** *Fm SB X7-7 Table 3*	**2020 GPCD**
566	8,028	**193**
NOTES: Units of measure are million gallons (MG).		

SB X 7-7 Table 6 pertains to baselines and targets and is not used in the SB X7-7 2020 Compliance Form.

SB X7-7 Table 7 applies to baseline and target calculations and is not included in the SB X7-7 2020 Compliance Form.

SB X7-7 Table 8 was used for the 2015 Interim Target and is not used in the 2020 UWMP.

SB X7-7 Table 9: 2020 Compliance							
Actual 2020 GPCD[1]	Optional Adjustments to 2020 GPCD Enter "0" if Adjustment Not Used Extraordinary Events[1]	Weather Normalization[1]	Economic Adjustment[1]	TOTAL Adjustments[1]	Adjusted 2020 GPCD [1] *(Adjusted if applicable)*	2020 Confirmed Target GPCD [1, 2]	**Did Supplier Achieve Targeted Reduction for 2020?**
193	-	-	-	-	193	236	**YES**

[1] *All values are reported in GPCD*

[2] ***2020 Confirmed Target GPCD*** *is taken from the Supplier's SB X7-7 Verification Form Table SB X7-7, 7-F.*

NOTES:

Appendix E

CAPITAL IMPROVEMENT PLAN

TCPUD
DRAFT - Water Capital Plan

		2022 Budget		2023		2024		2025		2026		2022 - 2026 Project Subtotal	Project Total
		Project Phase	Project Budget	Project Phase	Project Budget	Project Phase	Project Budget	Project Phase	Project Budget	Project Phase	Project Budget		
ENGINEERING PROJECTS													
	Public Projects Relocations/Upgrades (EIP)	P&D/CONST	$ 10,000	P&D/CONST	$ 10,000	P&D/CONST	$ 10,000	P&D/CONST	$ 10,000	P&D/CONST	$ 10,000	$ 50,000	$ 24,973,087
8176	Timberland Water System Metering and Distribution Improvements											$ -	$ 3,604,445
8170	Tahoe Cedars Water System Distribution Improvements - Phase 2											$ -	$ 81,347
8181	Tahoe Cedars - Second Avenue Water Line Replacement	CONST	$ 134,091									$ 134,091	$ 474,432
8171	Madden Creek Water System Interconnection and Dist. Improvements - Phases 1 & 2	CONST	$ 596,079									$ 596,079	$ 3,847,278
8182	Hwy 28 Conductor Crossing Project	P&D/CONST	$ 1,119,211									$ 1,119,211	$ 1,137,211
7109	CA FLAP SR89 - Fanny Bridge - Water Relocations	CONST	$ -	CONST	$ 170,150							$ 170,150	$ 210,301
8126	West Lake Tahoe Regional Water Treatment Plant (FINANCED)	CONST	$ 8,981,325	CONST	$ 6,079,999	CONST	$ 1,041,170					$ 16,102,494	$ 24,537,674
8183	Rubicon Wells 2 & 3 - Backup Power Project	P&D	$ 164,341	CONST	$ 856,704							$ 1,021,045	$ 1,028,045
8180	Lower Meeks Bay PRV	P&D	$ 107,169	CONST	$ 477,756							$ 584,925	$ 589,925
8179	Rubicon Tank No. 1 Water Feed Line Replacement	P&D	$ 40,513	CONST	$ 247,800							$ 288,313	$ 294,000
	The Drive WLR	P&D	$ 87,832	CONST	$ 612,864							$ 700,696	$ 700,696
	Dardanelles WLR	P&D	$ 96,360	CONST	$ 989,880							$ 1,086,240	$ 1,086,240
	Concrete Tank Rehabilitation (Four Seasons & Tahoe Tavern)	PRELIM	$ 16,300	P&D	$ 38,650	CONST	$ 97,350					$ 152,300	$ 152,300
	Smart Meter Replacement Program	CONST	$ 200,000	CONST	$ 700,000	CONST	$ 700,000					$ 1,600,000	$ 1,600,000
8178	West Shore Storage Augmentation & Transmission Project	PRELIM	$ 406,280	P&D	$ 1,516,500	CONST	$ 1,881,300	CONST	$ 8,280,000	CONST	$ 7,425,000	$ 19,509,080	$ 19,606,400
	Madden Creek Water System Distribution Improvements (Final Project Scope/Schedule subject to 2020 Master Plan & Long Term Financial Plan)	P&D	$ 215,000	P&D/CONST	TBD	CONST	TBD	CONST	TBD	CONST	TBD	$ 215,000	$ 255,000
	Tahoe Cedars Water System Distribution Improvements (Final Project Scope/Schedule subject to 2020 Master Plan & Long Term Financial Plan)	PRELIM/P&D	$ 250,000	P&DCONST	TBD	CONST	TBD	CONST	TBD	CONST	TBD	$ 250,000	$ 250,000
	Admin Facility Improvement Projects (Final Project Scope/Schedule subject to 2021 Master Plan & Long Term Financial Plan) Water Capital Share (1/3)			P&D	$ 166,667	CONST	$ 1,000,000	CONST	$ 833,333			$ 2,000,000	$ 2,000,000
	Highlands Easements Service Line Replacements (Polybutylene)			P&D	$ 100,104	CONST	$ 403,632					$ 503,736	$ 503,736
	Moana Circle WLR			P&D	$ 145,200	CONST	$ 834,900					$ 980,100	$ 980,100
	Lagoon WLR			P&D	$ 179,520	CONST	$ 1,974,720					$ 2,154,240	$ 2,154,240
8144	TC Main Emergency Water Supply Project			P&D	$ 74,629	CONST	$ 706,641	CONST	$ 176,660			$ 957,930	$ 1,055,830
	Rubicon Water System Transmission Improvements			P&D	$ 193,594	P&D	$ 580,782	CONST	$ 2,175,625			$ 2,950,001	$ 2,950,001
	Fairway WLR (Bunker to NTFPD)					P&D	$ 100,776	CONST	$ 891,480			$ 992,256	
	Water System Master Metering							Prelim/P&D	$ 40,000	CONST	$ 250,000	$ 290,000	$ 290,000
	Tahoe City Main Source Augmentation Projects							PRELIM	$ 609,000	P&D	$ 1,319,500	$ 1,928,500	$ 1,928,500
			$ 12,424,500		**$ 12,560,017**		**$ 9,331,271**		**$ 13,016,098**		**$ 9,004,500**	**$ 56,336,386**	
OPERATIONAL PROJECTS													
8175	Timberland System Upgrades (Immediate)											$ -	$ 140,477
8164	Lake Forest Water System - Abandon Existing LFWC Facilities	CONST	$ 15,000									$ 15,000	$ 46,825
8173	Tahoe Cedars System Upgrades (Immediate)	CONST	$ 20,000									$ 20,000	$ 362,133
8174	Madden Creek System Upgrades (Immediate)	CONST	$ 5,000									$ 5,000	$ 95,192
8177	Replace Telemetry RTUs (Water and Sewer Dept.s) (60% Water Share)	CONST	$ 45,000									$ 45,000	$ 124,707
8167	Cedar Point Condo Water Service Line Replacements	CONST	$ 40,500									$ 40,500	$ 46,357
	Transfer Switch Replacement	CONST	$ 25,000									$ 25,000	$ 25,000
8102	Large Commercial/Domestic Meter Replacement Program	CONST	$ 35,547	CONST	$ 35,547	CONST	$ 35,547					$ 106,641	$ 148,438
	Riley Springs Vault Rehabilitation	P&D	$ 10,000	CONST	$ 62,000							$ 72,000	$ 72,000
	Rubicon Tank No.2 Exterior Recoating			CONST	$ 75,000							$ 75,000	$ 75,000
	Lower Highlands Tank Interior Exterior Recoating (w/ Ladder Mods)			CONST	$ 330,000							$ 330,000	$ 330,000
			$ 196,047		**$ 502,547**		**$ 35,547**		**$ -**		**$ -**	**$ 734,141**	
	GRAND TOTAL EXPENDITURE	**2022**	**$ 12,620,547**	**2023**	**$ 13,062,564**	**2024**	**$ 9,366,818**	**2025**	**$ 13,016,098**	**2026**	**$ 9,004,500**	**$ 57,070,527.10**	
	WLTRWTP FINANCING		**$ 7,670,267**		**$ 920,725**		**$ -**					**$ 8,590,992**	
	TOTAL GRANT & FINANCING REIMBURSEMENTS		**$ 7,670,267**		**$ 920,725**		**$ -**		**$ -**		**$ -**	**$ 8,590,992**	
	NET TOTAL EXPENDITURE (EXCLUDING GRANT & FINANCED AMOUNTS)		**$ 4,950,280**		**$ 12,141,838**		**$ 9,366,818**		**$ 13,016,098**		**$ 9,004,500**	**$ 48,479,535**	

8176	P/N

Project Title:	Timberland Water Interconnection and Distribution Improvement Project
Project Manager:	Charley Miller
Current Phase:	CONSTRUCTION
Budget Location:	CAPITAL - WATER
Design Consultant:	Sauers Engineering
Const. Contractor:	Ph. I - White Rock Construction / Ph. II Vinciguerra

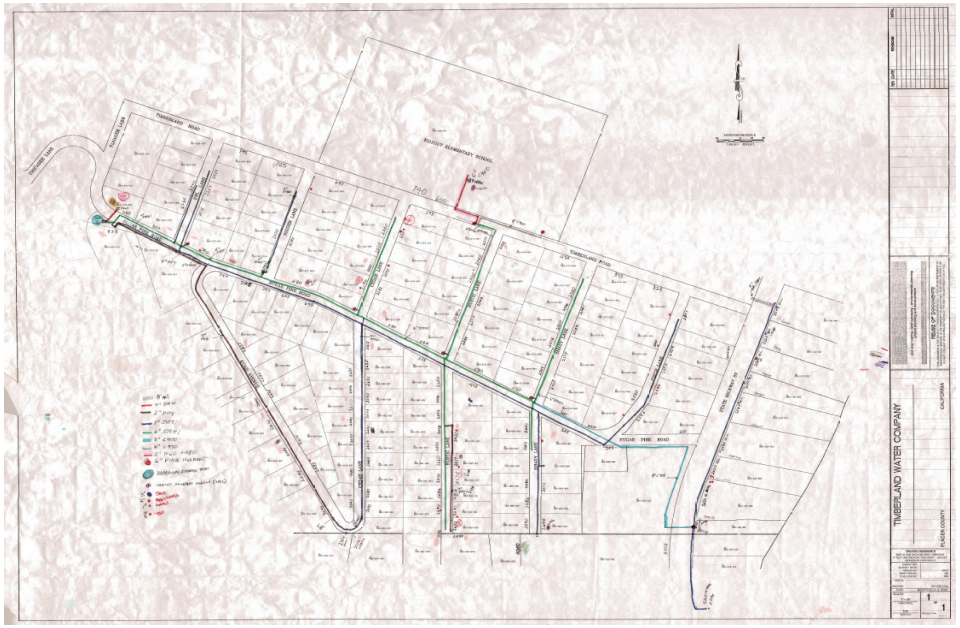
Project Description:

This Project will consist of the assessment and evaluation of the existing distribution system for complete system rehabilitation to meet the District's level of service and to install meters. Phase II of the project included the design and construction of new water mains, new water services, water meters and fire hydrants for the northern roads of Cedar Ln., Rustic Ln., Shady Ln., and along the eastern side of State Hwy 89.

Justification or Significance of Improvement:

Placer County had planned to overlay the pavement in the entire Timberland subdivision in 2018. They agreed to defer this work until 2020/21 to allow the District to complete the proposed project prior to the imposition of the usual 5-year moratorium on underground utility work. The Timberland Water System was acquired by the TCPUD in Jan. 2018 and is unmetered. The distribution system is undersized and not networked. The proposed project will address metering, fire flow, hydrant spacing, networking, valving, and water quality.

Map/Photo:



Justification Data:

Asset Category:	WATER
Asset Type:	Distribution
Project Type:	Replace
Justification Category:	Age/Condition
Facility Age (Life):	50+

Project Costs

Phase	Pre 2020 Actual	2020 Projected	2021 Budget	2022 Budget	2023 Budget	Total
Preliminary	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ 215,148	$ 84,940		$ -	$ -	$ 300,087
Construction	$ 1,954,436	$ 1,330,638	$ 10,000	$ -	$ -	$ 3,295,074
Total Project Costs	**$ 2,169,583**	**$ 1,415,578**	**$ 10,000**	**$ -**	**$ -**	**$ 3,595,161**
Funding Source(s):						
PCWA	$ 10,000	$ -	$ -	$ -	$ -	$ 10,000
BOR	$ -	$ 75,000		$ -	$ -	$ 75,000
Net Capital Expenditure	**$ 2,159,583**	**$ 1,340,578**	**$ 10,000**	**$ -**	**$ -**	**$ 3,510,161**

Project Schedule

Begin Design:	Jun-18
Bid Construction Ph. I:	May-19
Start Construction Ph. I:	Jun-19
Complete Construction Ph. I:	Oct-19
Bid Construction Ph. II:	Mar-20
Start Construction Ph. II:	May-20
Complete Construction Ph. II:	Oct-20

8171	P/N

Project Title:	Madden Creek Water System Interconnection and Distribution Improvements Ph. 1 & Ph. 2.
Project Manager:	Will Stelter
Current Phase:	DESIGN
Budget Location:	CAPITAL - WATER
Design Consultant:	Auerbach Engineering Corp
Const. Contractor:	Ph. 1 - Vinciguerra Construction, Inc., Ph. 2 - TBD

Project Description:

The Phase 1 Project included construction of approximately 850 LF of new 12-inch water line and appurtenances to interconnect the Madden Creek Water System with the TCPUD McKinney-Quail water service area. Phase 1 also included the former Ellis to Lagoon Water Line Project, which replaced approximately 1,280 LF of water line with 12-inch pipe for fire protection purposes. Phase 1 was completed in 2019. The Phase 2 Project includes replacement of approximately 2,600 LF of 1-inch, 2-inch, and 4-inch water lines with 8-inch pipe. This will include servicing, fire hydrants and appurtenances, throughout the Madden Creek service area; Phase 2 construction is scheduled for 2021.

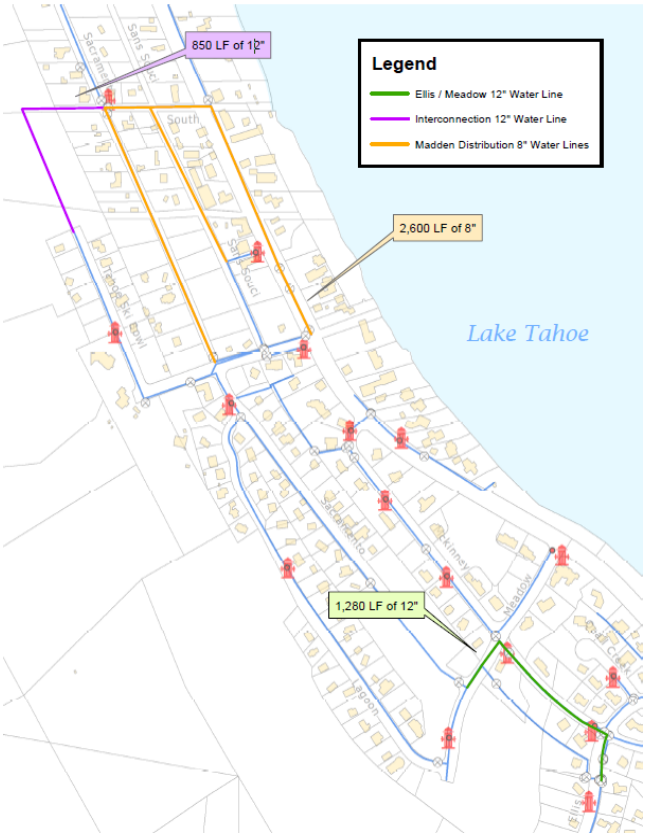
Justification or Significance of Improvement:

Prior to acquisition by the TCPUD, the Madden Creek Water System had only one groundwater source supplying the system. The constructed Phase 1 Project provided an interconnection with the TCPUD McKinney-Quail water service area for backup water supply with sufficient capacity and storage capable of enhanced fire flows. This also provided access to the future regional water supply from the WLTRWTP project. The Phase 2 Project includes work to replace undersized and aging Madden Creek water lines to improve system operation and provide fire protection.

Justification Data:

Asset Category:	WATER
Asset Type:	Distribution
Project Type:	Replace
Justification Category:	Age/Condition
Facility Age (Life):	100+ years old

Map/Photo:



Project Costs

Phase	Pre 2020 Actual	2020 Projected	2021 Budget	2022 Budget	2023 Budget	Total
Preliminary	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ 265,064	$ 31,495	$ 86,773	$ -	$ -	$ 383,332
Construction	$ 958,045	$ 2,253	$ 2,283,130	$ -	$ -	$ 3,243,427
Total Project Costs	**$ 1,223,108**	**$ 33,748**	**$ 2,369,903**	**$ -**	**$ -**	**$ 3,626,759**
Funding Source(s):						
PCWA	$ 66,150		$ -	$ -	$ -	$ 66,150
Net Capital Expenditure	**$ 1,156,958**	**$ 33,748**	**$ 2,369,903**	**$ -**	**$ -**	**$ 3,560,609**

Project Schedule

Begin Design:	Sep-17
Bid Ph. 1 Construction:	May-19
Start Ph. 1 Construction:	Aug-19
Complete Ph. 1 Construction:	Oct-19
Bid Ph. 2 Construction:	Feb-21
Start Ph. 2 Construction:	May-21
Complete Ph. 2 Construction:	Oct-21

	P/N
Project Title:	Tahoe Cedars Water System Distribution Improvements - Ph. 2
Project Manager:	Will Stelter
Current Phase:	PLANNING
Budget Location:	CAPITAL - WATER
Design Consultant:	TBD
Const. Contractor:	TBD

Project Description:

Located in the Tahoma subdivision along Highway 89, the project will construct approximately 4,400 LF of new water main and appurtenances to improve the fire supply and protection. The new water main will tie into existing water mains in Pine St. and Moana Cir. Additionally the existing water main located under the Marie Sluchak playground will be relocated outside of the park to within the County Right-of-Way and a new water main will be installed in Pomin Ave.

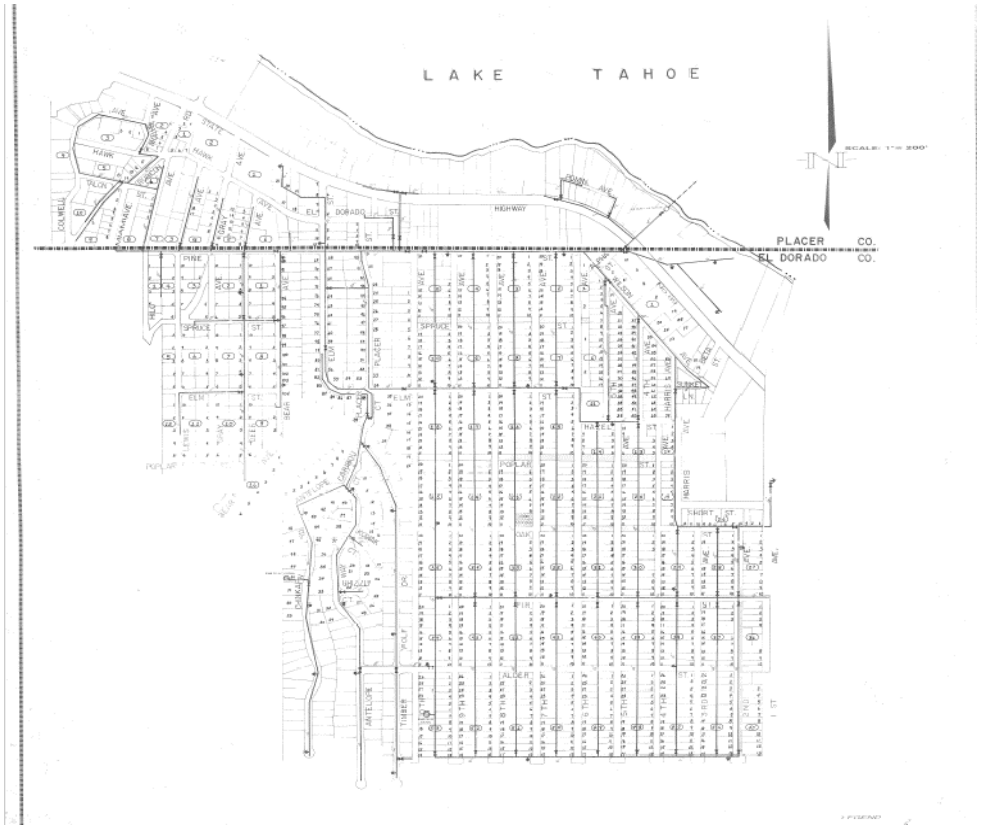
Justification or Significance of Improvement:

The Tahoe Cedars Water System was acquired by the TCPUD in January of 2018. It is unmetered, the distribution system is severely undersized, and is in very poor condition. The proposed project will address metering, fire flow, hydrant spacing, networking, valving, and water quality. This phase will address the commercial core.

Justification Data:

Asset Category:	WATER
Asset Type:	Distribution
Project Type:	Rehab
Justification Category:	Multiple
Facility Age (Life):	TBD

Map/Photo:



Project Costs

Phase	Pre 2020 Actual	2020 Projected	2021 Budget	2022 Budget	2023 Budget	Total
Preliminary	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ -	$ 38,616	$ 347,548	$ -	$ -	$ 386,164
Construction	$ -	$ -		$ 2,531,525	$ -	$ 2,531,525
Total Project Costs	**$ -**	**$ 38,616**	**$ 347,548**	**$ 2,531,525**	**$ -**	**$ 2,917,689**
Funding Source(s):						
	$ -	$ -	$ -	$ -	$ -	$ -
Net Capital Expenditure	**$ -**	**$ 38,616**	**$ 347,548**	**$ 2,531,525**	**$ -**	**$ 2,917,689**

Project Schedule

Begin Design:	Feb-21
Bid Construction:	Feb-22
Start Construction:	May-22
Complete Construction:	Oct-22

8126	P/N

Project Title:	West Lake Tahoe Regional Water Treatment Plant
Project Manager:	Sarah Hussong Johnson
Current Phase:	DESIGN
Budget Location:	CAPITAL - WATER
Design Consultant:	Kennedy-Jenks
Const. Contractor:	TBD

Project Description:

Construction of a permanent surface water treatment plant that will service the TCPUD McKinney-Quail, Tahoe Cedars, and Madden Creek water service areas and potentially other water systems in the area as a regional water supply. This plant would replace the existing seasonal interim surface water treatment plant at Chambers Landing, constructed in the spring of 2004. The project also includes reconstruction of the existing McKinney Sewer Pump Station building to house the power and control facilities for the new lake intake pumps and pre-treatment equipment.

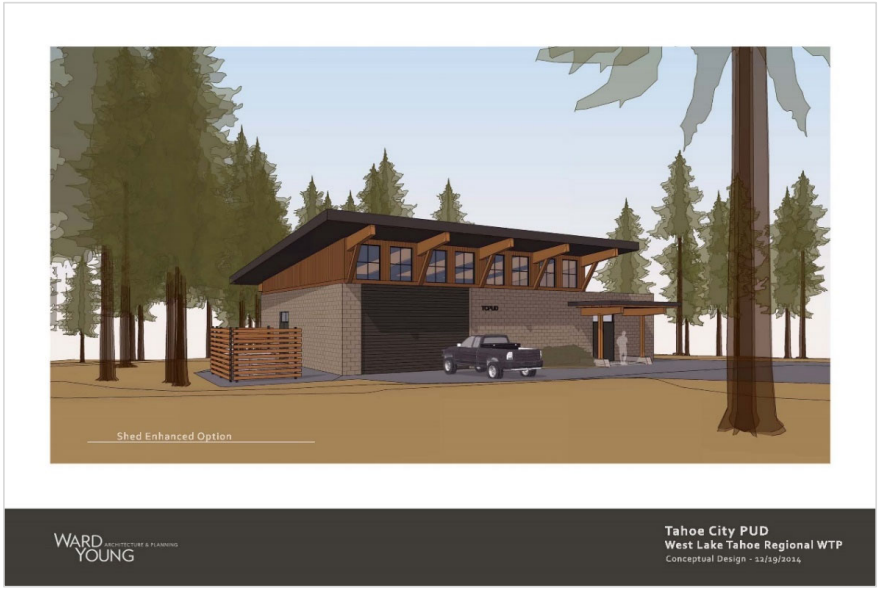
Justification or Significance of Improvement:

The TCPUD McKinney-Quail, Tahoe Cedars, and Madden Creek water service areas have been interconnected and are each supplied by their individual groundwater wells. The McKinney-Quail system is also served by the seasonal plant at Chambers Landing, and the emergency interconnect to the McKinney Water District. A failure of any of the groundwater wells could cause a major disruption during the winter months, including a potential emergency boil order if untreated surface water was used. A permanent secondary source is required. A new surface water treatment plant has been identified as the best solution for this issue. A plant capable of supplying, or being expanded to serve more regional needs is planned. This will allow a lower cost of service per customer as well as planning for future source needs in the broader area currently served by private water systems.

Justification Data:

Asset Category:	WATER
Asset Type:	Source
Project Type:	Upgrade
Justification Category:	Capacity
Facility Age (Life):	N/A

Map/Photo:



Project Costs

Phase	Pre 2020 Actual	2020 Projected	2021 Budget	2022 Budget	2023 Budget	Total
Preliminary	$ 237,639	$ -	$ -	$ -	$ -	$ 237,639
Design	$ 2,076,487	$ 1,541,923	$ -	$ -	$ -	$ 3,618,409
Construction	$ -	$ 97,687	$ 5,255,124	$ 7,624,157	$ 1,430,152	$ 14,407,120
Total Project Costs	**$ 2,314,125**	**$ 1,639,610**	**$ 5,255,124**	**$ 7,624,157**	**$ 1,430,152**	**$ 18,263,168**
Funding Source(s):						
Secured Outside Funding	$ 532,500	$ -	$ -	$ -	$ -	$ 532,500
Capital Offset for McKinney Sewer PS	$ -		$ 114,939	$ -	$ -	$ 114,939
Net Capital Expenditure	**$ 1,781,625**	**$ 1,639,610**	**$ 5,140,185**	**$ 7,624,157**	**$ 1,430,152**	**$ 17,615,729**

Project Schedule

Begin Design:	Jan-13
Bid Construction:	Nov-20
Start Construction:	May-21
Complete Construction:	Nov-22

	P/N
Project Title:	Rubicon Wells 2 & 3 - Backup Power Project
Project Manager:	Charley Miller
Current Phase:	PLANNING
Budget Location:	CAPITAL - WATER
Design Consultant:	TBD
Const. Contractor:	TBD

Project Description:

The Rubicon Wells 2 & 3 Station is located on two parcels just south of Meeks Bay. The District will design and construct a building to house a permanent backup generator. Both wells will run off of one generator in the new building.

Justification or Significance of Improvement:

Located just south of Meeks Bay, backup electric power is critical. Winter access can be difficult and the lack of a permanent generator can make emergency response during power outages difficult.

Justification Data:

Asset Category:	WATER
Asset Type:	Source
Project Type:	Upgrade
Justification Category:	Vulnerability/Risk
Facility Age (Life):	TBD

Map/Photo:

Project Costs

Phase	2019 Budget	2020 Budget	2021 Budget	2022 Budget	2023 Budget	Total
Preliminary	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ -	$ 118,219	$ -	$ -	$ -	$ 118,219
Construction	$ -	$ -	$ 617,962	$ -	$ -	$ 617,962
Total Project Costs	**$ -**	**$ 118,219**	**$ 617,962**	**$ -**	**$ -**	**$ 736,181**
Funding Source(s):						
	$ -	$ -	$ -	$ -	$ -	$ -
Net Capital Expenditure	**$ -**	**$ 118,219**	**$ 617,962**	**$ -**	**$ -**	**$ 736,181**

Project Schedule

Begin Design:	Feb-20
Bid Construction:	2021
Start Construction:	2021
Complete Construction:	2021

P/N	
Project Title:	Lower Meeks Bay PRV
Project Manager:	Charley Miller
Current Phase:	DESIGN
Budget Location:	CAPITAL - WATER
Design Consultant:	TBD
Const. Contractor:	TBD

Project Description:

The work will consist of the installation of approximately 600 feet of new 8" water main and a pressure reducing valve (PRV) station to connect the Meeks Bay Vista pressure zone to the Tahoe Hills distribution system. This will greatly improve fire flow at all hydrants along the length of Meeks Bay Avenue and will create a redundant connection in the event of a failure or maintenance of one PRV.

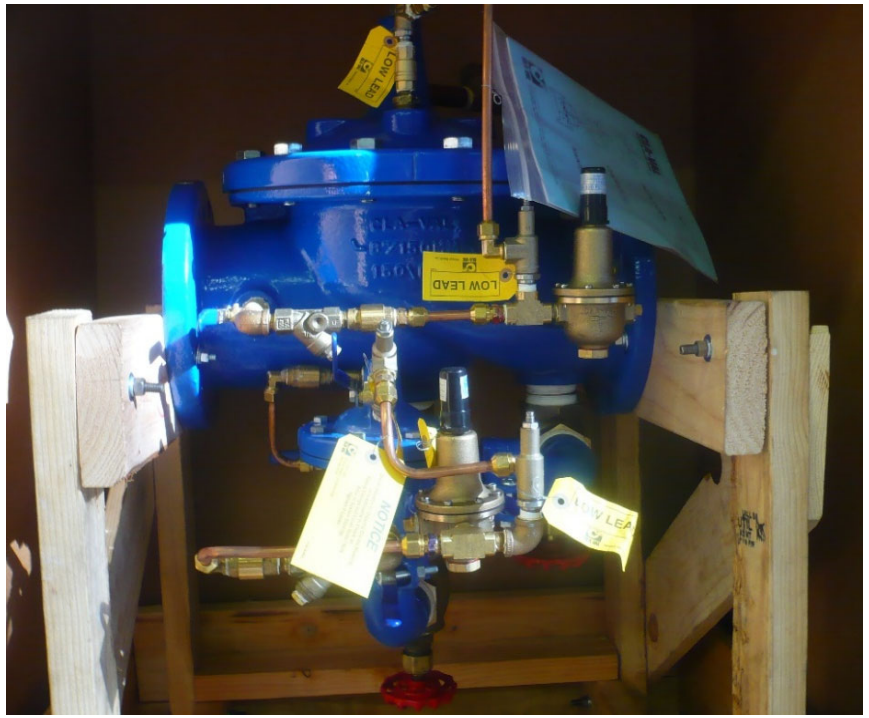
Justification or Significance of Improvement:

The Meeks Bay Vista pressure zone is currently fed from one PRV on the south end of the system running the length of Meeks Bay Avenue (5,700 feet). The system experiences severe head loss under fire flows. Providing a northerly connection will greatly improve fire flow at all hydrants along Meeks Bay Avenue and create a redundant connection to the system.

Justification Data:

Asset Category:	WATER
Asset Type:	Distribution
Project Type:	Upgrade
Justification Category:	Safety/Security
Age of the Asset :	N/A

Map/Photo:



Project Costs

Phase	Pre 2020 Actual	2020 Projected	2021 Budget	2022 Budget	Total
Preliminary	$ -	$ -	$ -	$ -	$ -
Design	$ -	$ -	$ 72,626	$ -	$ 72,626
Construction	$ -	$ -	$ -	$ 397,716	$ 397,716
Total Project Costs	**$ -**	**$ -**	**$ 72,626**	**$ 397,716**	**$ 470,342**
Funding Source(s):					
	$ -	$ -	$ -	$ -	$ -
Net Capital Expenditure	**$ -**	**$ -**	**$ 72,626**	**$ 397,716**	**$ 470,342**

Project Schedule

Begin Design:	Jan-21
Bid Construction:	Jan-22
Start Construction:	May-22
Complete Construction:	Sep-22

	P/N

Project Title:	Rubicon Tank No. 1 Water Feed Line Replace
Project Manager:	Charley Miller
Current Phase:	DESIGN
Budget Location:	CAPITAL - WATER
Design Consultant:	N/A
Const. Contractor:	TBD

Project Description:

Replace approximately 275 feet of 6-inch water main with a 10-inch diameter water main.

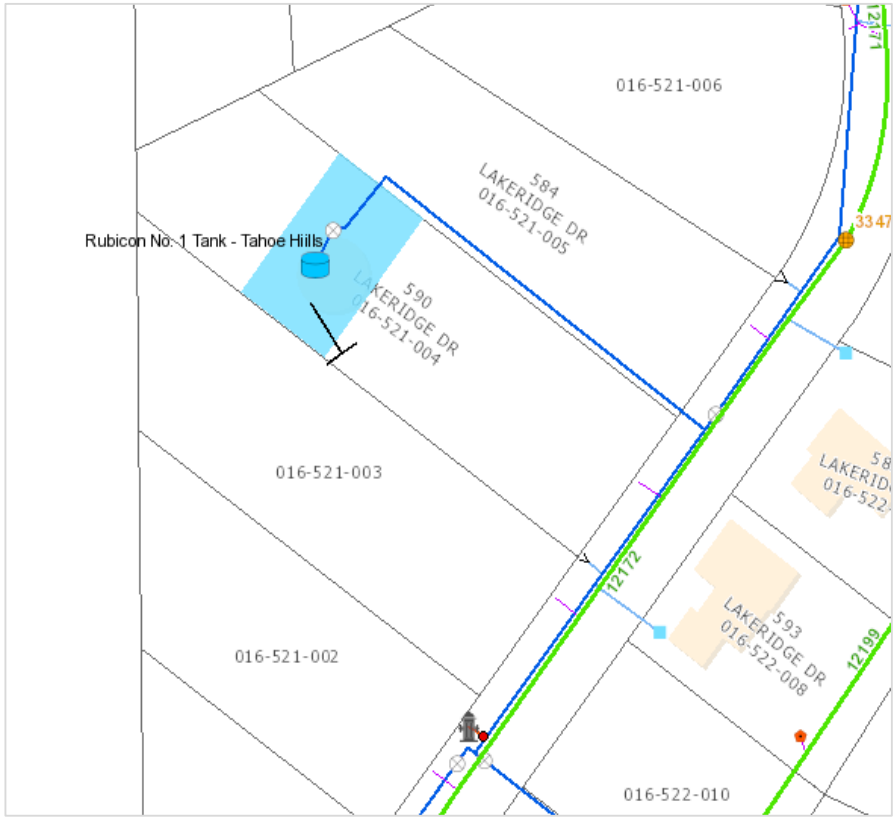
Justification or Significance of Improvement:

The current 6-inch water main serves as the common inlet/outlet from the Rubicon Tank No. 1. The current diameter of 6-inches is undersized to meet the higher flow demands of the Rubicon system. Increasing the diameter of this section of pipe will provide additional flow and pressure under high demand conditions such as fire flow.

Justification Data:

Asset Category:	WATER
Asset Type:	Storage
Project Type:	Replace
Justification Category:	Multiple
Facility Age (Life):	N/A

Map/Photo:



Project Costs

Phase	Pre 2020 Actual	2020 Projected	2021 Budget	2022 Budget	2023 Budget	Total
Preliminary	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ -	$ -	$ 43,500	$ -		$ 43,500
Construction	$ -	$ -	$ -	$ 177,000	$ -	$ 177,000
Total Project Costs	**$ -**	**$ -**	**$ 43,500**	**$ 177,000**	**$ -**	**$ 220,500**
Funding Source(s):						
PCWA	$ -		$ -	$ -	$ -	$ -
Net Capital Expenditure	**$ -**	**$ -**	**$ 43,500**	**$ 177,000**	**$ -**	**$ 220,500**

Project Schedule

Begin Design:	Feb-21
Bid Construction:	May-21
Start Construction:	Jul-21
Complete Construction:	Sep-21

8173	P/N

Project Title:	Tahoe Cedars System Upgrades
Project Manager:	Tony Laliotis
Current Phase:	CONSTRUCTION
Budget Location:	CAPITAL - WATER
Design Consultant:	N/A
Const. Contractor:	DISTRICT

Project Description:

Immediately needed operational projects for the water systems.
Projects include:
-Purchase a spare well pump
-Water meter installations in existing metered customer locations
-Bacteriological sampling site installations
-Well flow meter installation
-Variable Frequency Drive (VFD)/Control Valve Installation
-Professional leak detection
-SCADA system integration
-Electric service to tank site

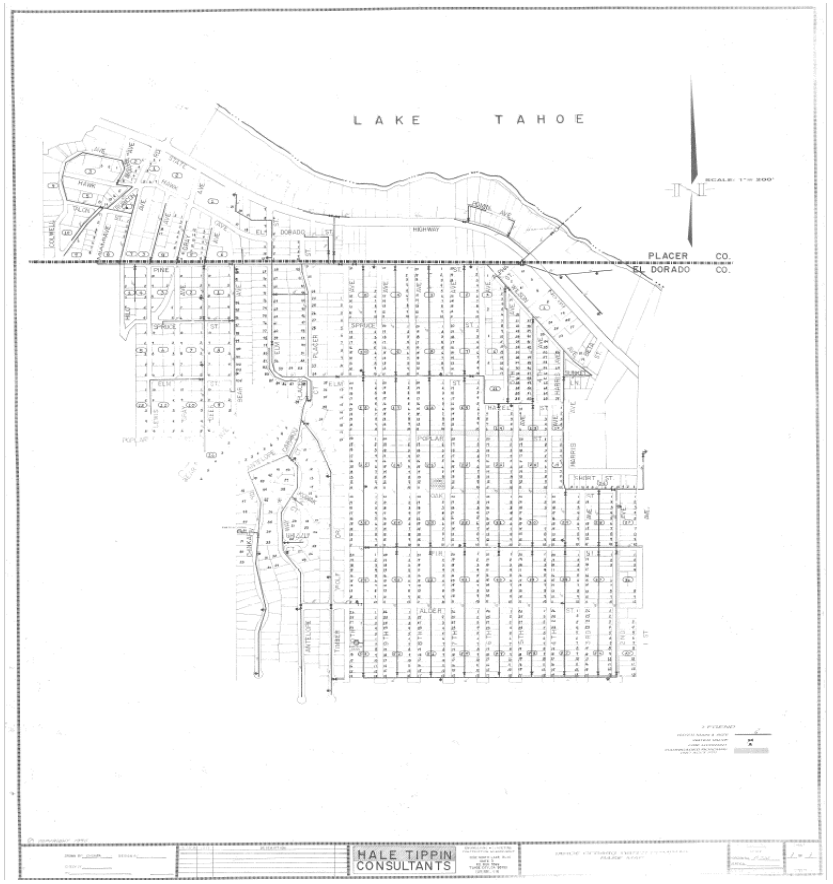
Justification or Significance of Improvement:

These projects are needed to improve system reliability, integrate the systems into our existing work practices, enhance water quality testing, provide key data points and create a more efficient operation.

Justification Data:

Asset Category:	WATER
Asset Type:	Multiple
Project Type:	Upgrade
Justification Category:	Multiple
Facility Age (Life):	N/A

Map/Photo:



Project Costs

Phase	Pre 2020 Actual	2020 Projected	2021 Budget	2022 Budget	2023 Budget	Total
Preliminary	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 190,417	$ 50,981	$ 20,000	$ 20,000	$ -	$ 281,398
Total Project Costs	**$ 190,417**	**$ 50,981**	**$ 20,000**	**$ 20,000**	**$ -**	**$ 281,398**
Funding Source(s):						
	$ -	$ -	$ -	$ -	$ -	$ -
Net Capital Expenditure	**$ 190,417**	**$ 50,981**	**$ 20,000**	**$ 20,000**	**$ -**	**$ 281,398**

Project Schedule

Begin Design:	N/A
Bid Construction:	N/A
Start Construction:	Jan-18
Complete Construction:	2022

8174	P/N

Project Title:	Madden Creek System Upgrades
Project Manager:	Tony Laliotis
Current Phase:	CONSTRUCTION
Budget Location:	CAPITAL - WATER
Design Consultant:	N/A
Const. Contractor:	DISTRICT

Project Description:

Immediately needed operational projects for the water systems acquired in 2018. Projects include:
-Purchase a spare well pump
-Water meter installations in existing metered customer locations
-Tank ladder and railing installation
-Bacteriological sampling site installations
-Well flow meter installation
-Professional leak detection
-SCADA system integration
-Electric service or robust solar system at tank site

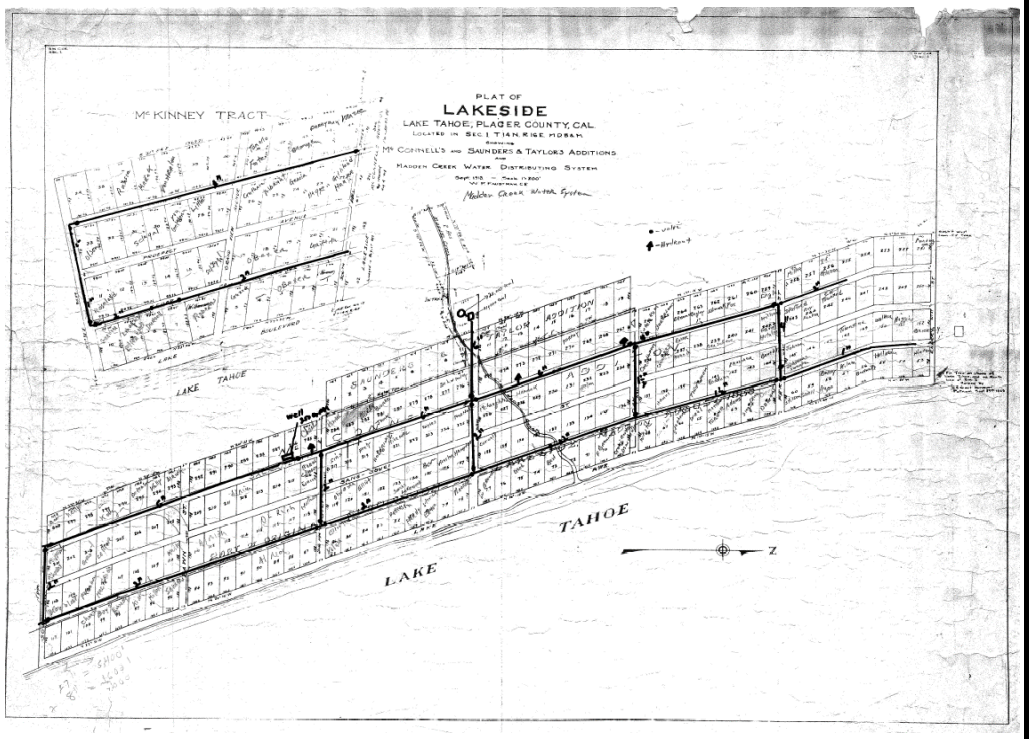
Justification or Significance of Improvement:

These projects are needed to improve system reliability, integrate the system into our existing work practices, enhance water quality testing, provide key data points and create a more efficient operation.

Justification Data:

Asset Category:	WATER
Asset Type:	Multiple
Project Type:	Upgrade
Justification Category:	Multiple
Facility Age (Life):	N/A

Map/Photo:



Project Costs

Phase	Pre 2020 Actual	2020 Projected	2021 Budget	2022 Budget	2023 Budget	Total
Preliminary	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 66,067	$ 14,780	$ 7,000	$ 5,000	$ -	$ 92,847
Total Project Costs	**$ 66,067**	**$ 14,780**	**$ 7,000**	**$ 5,000**	**$ -**	**$ 92,847**
Funding Source(s):						
0	$ -	$ -	$ -	$ -	$ -	$ -
Net Capital Expenditure	**$ 66,067**	**$ 14,780**	**$ 7,000**	**$ 5,000**	**$ -**	**$ 92,847**

Project Schedule

Begin Design:	N/A
Bid Construction:	N/A
Start Construction:	Jan-18
Complete Construction:	2022

8175	P/N

Project Title:	Timberland System Upgrades
Project Manager:	Tony Laliotis
Current Phase:	CONSTRUCTION
Budget Location:	CAPITAL - WATER
Design Consultant:	N/A
Const. Contractor:	DISTRICT

Project Description:

Immediately needed operational projects for the water systems acquired in 2018. Projects include:
-Backup water supply (school well)
-VFD for well pump
-Purchase a spare well pump
-Water meter installations in existing metered customer locations
-Bacteriological sampling site installations
-Well flow meter installation
-Professional leak detection

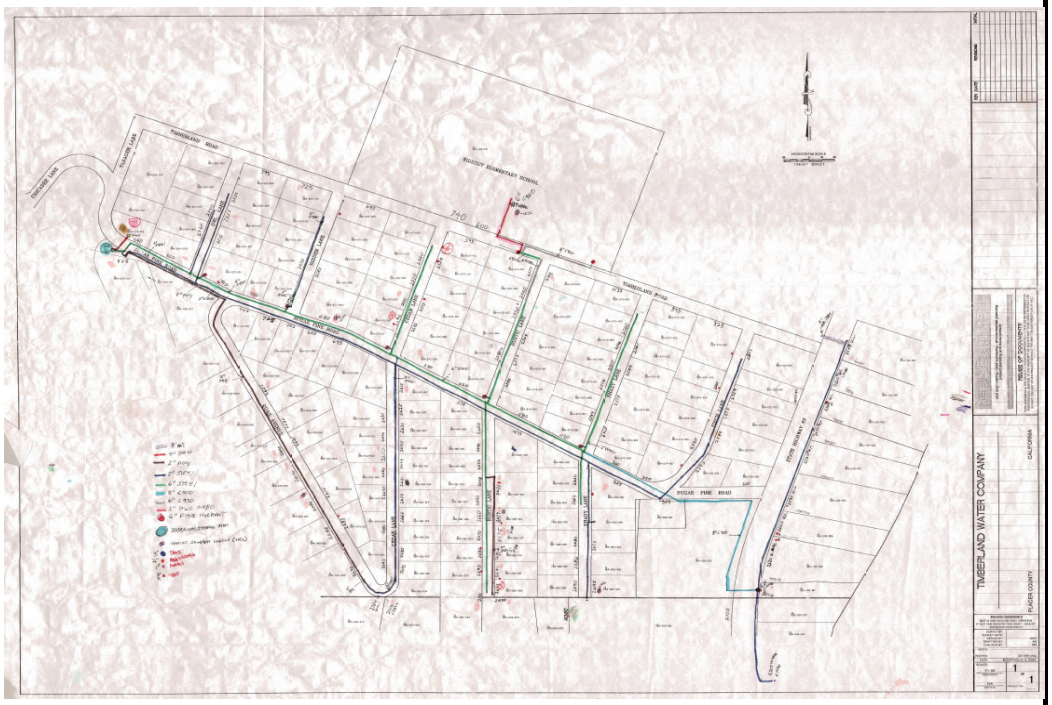
Justification or Significance of Improvement:

These projects are needed to improve system reliability, integrate the system into our existing work practices, enhance water quality testing, provide key data points and create a more efficient operation.

Justification Data:

Asset Category:	WATER
Asset Type:	Multiple
Project Type:	Upgrade
Justification Category:	Multiple
Facility Age (Life):	N/A

Map/Photo:



Project Costs

Phase	Pre 2020 Actual	2020 Projected	2021 Budget	2022 Budget	2023 Budget	Total
Preliminary	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ 121,498	$ 24,674	$ 8,000	$ 8,000	$ -	$ 162,172
Total Project Costs	**$ 121,498**	**$ 24,674**	**$ 8,000**	**$ 8,000**	**$ -**	**$ 162,172**
Funding Source(s):						
PCWA	$ -		$ -	$ -	$ -	$ -
Net Capital Expenditure	**$ 121,498**	**$ 24,674**	**$ 8,000**	**$ 8,000**	**$ -**	**$ 162,172**

Project Schedule

Begin Design:	N/A
Bid Construction:	N/A
Start Construction:	Jan-18
Complete Construction:	2022

P/N	
Project Title:	Replace Telemetry RTUs (Water and Sewer Dept.s)
Project Manager:	Tony Laliotis
Current Phase:	DESIGN
Budget Location:	CAPITAL - WATER (60%)/SEWER (40%)
Design Consultant:	TBD
Const. Contractor:	TBD

Project Description:

Replacement of all existing Remote Terminal Units (RTU) within all District water and sewer facilities (stations). RTUs communicate between the stations and the Supervisory Control and Data Acquisition (SCADA) system at the office allowing for remote monitoring, recording, and control of all District water and sewer facilities.

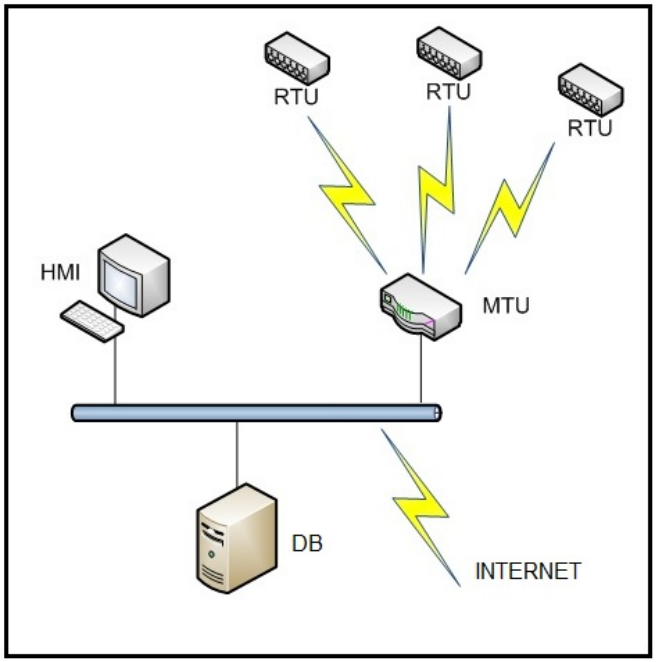
Justification or Significance of Improvement:

The current RTUs have reached the end of their service life and replacement parts are no longer readily available. Newer models provide expanded capabilities and allow for remote programming.

Justification Data:

Asset Category:	WATER
Asset Type:	Transmission
Project Type:	Replace
Justification Category:	Age/Condition
Age:	15+ Years

Map/Photo:



Project Costs

Phase	Pre 2020 Actual	2020 Projected	2021 Budget	2022 Budget	2023 Budget	Total
Preliminary	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ -	$ -	$ -	$ -	$ -	$ -
Construction	$ -	$ 74,494	$ 75,000	$ 75,000	$ -	$ 224,494
Total Project Costs	**$ -**	**$ 74,494**	**$ 75,000**	**$ 75,000**	**$ -**	**$ 224,494**
Funding Source(s):						
	$ -	$ -	$ -	$ -	$ -	$ -
Net Capital Expenditure	**$ -**	**$ 74,494**	**$ 75,000**	**$ 75,000**	**$ -**	**$ 224,494**

Project Schedule

Begin Design:	N/A
Bid Construction:	N/A
Start Construction:	Aug-20
Complete Construction:	Nov-22

8167	P/N

Project Title:	Cedar Point Condo Water Service Line Replacements
Project Manager:	Tony Laliotis
Current Phase:	CONSTRUCTION
Budget Location:	CAPITAL - WATER
Design Consultant:	NA
Const. Contractor:	District

Project Description:

This project will replace or slip line all galvanized steel laterals in the complex between 2" and 1" in size. Based on ownership, install block meters as appropriate.

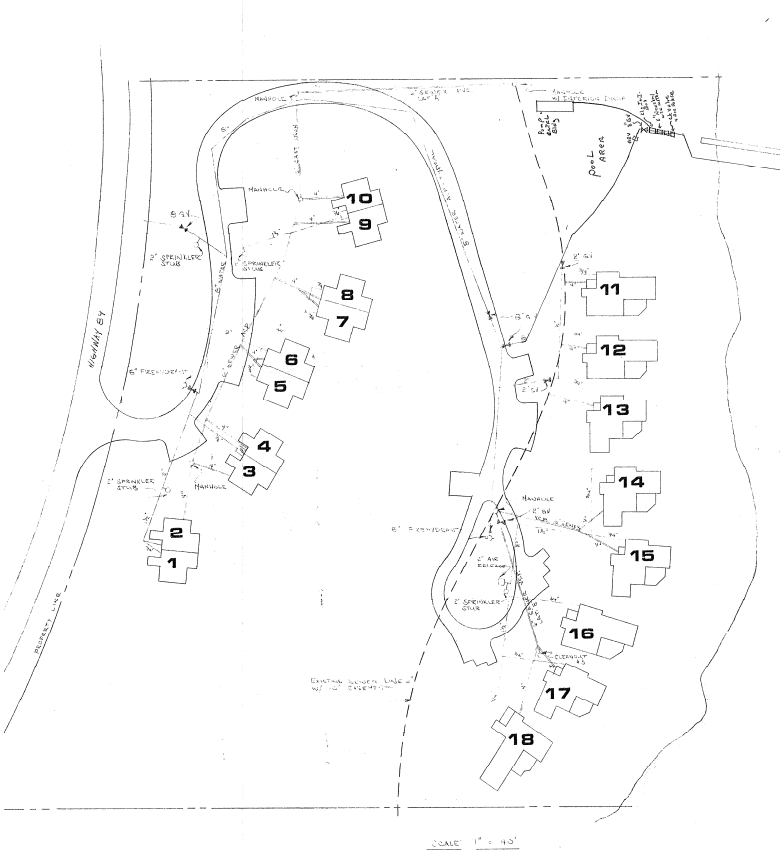
Justification or Significance of Improvement:

Cedar Point steel laterals have experienced major failures over the years causing significant water loss. In the process of replacing or slip lining these lines the District will take the opportunity to install block meters. The District never took ownership of 3/4" laterals and water services to individual units when this complex was developed. Therefore, a transition to block meters will now be commensurate with ownership within the complex.

Justification Data:

Asset Category:	WATER
Asset Type:	Distribution
Project Type:	Replace
Justification Category:	Age/Condition
Facility Age (Life):	39

Map/Photo:



Project Costs

Phase	Pre 2020 Actual	2020 Projected	2021 Budget	2022 Budget	2023 Budget	Total
Preliminary	$ -	$ -	$ -	$ -	$ -	$ -
Design	$ 310	$ -	$ -	$ -	$ -	$ 310
Construction	$ -	$ 7,000	$ 40,500	$ -	$ -	$ 47,500
Total Project Costs	**$ 310**	**$ 7,000**	**$ 40,500**	**$ -**	**$ -**	**$ 47,810**
Funding Source(s):						
	$ -	$ -	$ -	$ -	$ -	$ -
Net Capital Expenditure	**$ 310**	**$ 7,000**	**$ 40,500**	**$ -**	**$ -**	**$ 47,810**

Project Schedule

Begin Design:	NA
Bid Construction:	NA
Start Construction:	May-20
Complete Construction:	Nov-20

Appendix F

ENERGY INTENSITY FORM

Urban Water Supplier: *Tahoe City Public Utility District*

Water Delivery Product (If delivering more than one type of product use Table O-1C)

Retail Potable Deliveries

Table O-1B: Recommended Energy Reporting - Total Utility Approach

Enter Start Date for Reporting Period	1/1/2020	**Urban Water Supplier Operational Control**		
End Date	12/31/2020			
☐ Is upstream embedded in the values reported?		**Sum of All Water Management Processes**	**Non-Consequential Hydropower**	
Water Volume Units Used	*MG*	Total Utility	Hydropower	Net Utility
Volume of Water Entering Process (volume unit)		*581*	*0*	*581*
Energy Consumed (kWh)		*1,480,591*	*0*	*1,480,591*
Energy Intensity (kWh/vol. converted to MG)		*2,548*	*0.0*	*2,548*

Quantity of Self-Generated Renewable Energy

0 kWh

Data Quality *(Estimate, Metered Data, Combination of Estimates and Metered Data)*

Metered Data

Data Quality Narrative:

Energy consumption data for retail potable water deliveries. The TCPUD does not have any hydropower.

Narrative:

The energy consumed was obtained from the electric power bills that are based on electric meter reads.

Appendix G

2020 CONSUMER CONFIDENCE REPORTS

Tahoe City Public Utility District
P. O. Box 5249
Tahoe City, CA 96145
www.tcpud.org
530-583-3796

Save Our WATER
Californians Don't Waste

Terms and Abbreviations Used in This Report

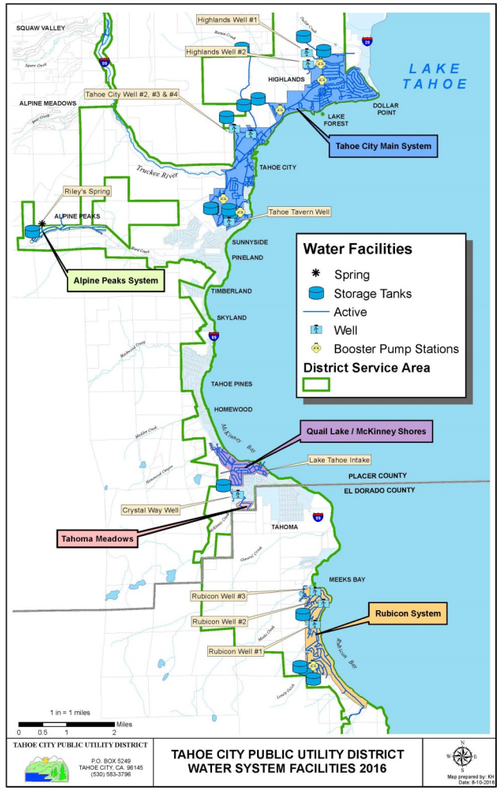
A	Number of tests absent of bacteria
MCL	Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.
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 are set by the U.S. Environmental Protection Agency.
MRDL	Maximum Residual Disinfection 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.
MRDL	Maximum Residual Disinfection 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.
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.
ND	Not Detected: Indicates contaminant was not detected in the source water.
N/R	Not Regulated or Not Required
NTU	Nephelometric Turbidity Unit: Measure of water clarity using light scattering
NS	Not Sampled
P	Number of tests detecting presence of bacteria
pCi/L	Picocuries Per Liter: Measure of radioactivity per 1 liter of water.
PDWS	Primary Drinking Water Standards. MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
PHG	Public Health Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.
ppb	Parts Per Billion: Parts contaminant for every 1 billion parts of water.
ppm	Parts Per Million: Parts contaminant for every 1 million parts of water.
RAA	Running Annual Average
SDWS	Secondary Drinking Water Standards. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.
T	Number of tests for bacteria (Laboratory analysis)
TON	Threshold Odor Number
TT	Treatment Technique: A required process intended to reduce the level of contaminant in drinking water.
Units	Number of units measured
µS/cm	Microsiemens: Measure of electrical current flow through a solution

Where does your water come from?

All of the drinking water supplied to each water system, with the exception of the McKinney/Quail system, is classified as groundwater. Sources include wells and springs drilled deep into the ground, providing clean, high quality water that consistently meets all standards without significant treatment. The McKinney/Quail water system is comprised of both a treated surface water source and a groundwater source. The Tahoe City Main system serves all residents from Dollar Point south to the Tahoe Tavern area. The Alpine Peaks system serves the area of Alpine Peaks only. The McKinney/Quail system serves the area of Chamberland, Chambers Landing, McKinney Shores, Moana Circle, and Tahoma Meadows area. Lastly, the Rubicon system serves the areas of Meeks Bay south to Bliss State Park. A Source Water Assessment for each active source was completed in 2003. The source(s) are considered most vulnerable to the following activities not associated with any detected contaminants: Sewer Collection Systems, Surface Water, Above Ground Storage Tanks, Transportation Corridors, Historic Gas Stations, and Water Supply Wells. There have been no contaminants detected in the water supply, however the sources are still considered vulnerable to the activities located near the drinking water source. Well construction and security measures should provide protection from most contaminating activities. Copies of all source water assessments are available for review at the TCPUD offices during regular business hours. Upon request, copies can be sent to individuals by contacting the Utilities Superintendent at (530) 580-6330.

Water Conservation Links:

- www.saveourwater.com/
- www.h2ouse.org/ water-conservation/
- www.tcpud.org/utility-services/water/water-conservation
- www.epa.gov/watersense/
- www.wateruseitwisely.com/100-ways-to-conserve



Tahoe City Public Utility District
2020 Annual Water Quality Consumer Confidence Report

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

To Our Valued Customers:

The enclosed information is a report of the quality and laboratory analysis of the drinking water that we delivered to you over the calendar year 2020. The Tahoe City Public Utility District (TCPUD) is pleased to report that all systems met all USEPA and State drinking water health standards. On pages two and three you will find a table containing all detected contaminants in the water as well as general information on water quality, lead and copper sampling results, and different health effect language for various contaminants. Page four has a map showing sources and basic system locations as well as system identification information. This report can also be viewed at our website at: www.tcpud.org/ccr/current.pdf.

While TCPUD water is classified as either treated surface water or groundwater, it is important for you to understand all potential sources of 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 U.S. EPA's Safe Drinking Water Hotline (1-800-426-4791). 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. U.S. 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 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. Contaminants that may be present in source water include:

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

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

For questions or additional information please call Utilities Superintendent, Dan Lewis, at (530) 580-6330 or the USEPA Safe Drinking Water Hotline at (800) 426-4791 or view their website: https://www.epa.gov/ground-water-and-drinking-water To obtain general District information, to express your views, or to participate in the decision-making process of the TCPUD; you are welcome to attend or view online our Board of Directors meetings. The District Board of Directors meeting schedule, agendas and videos are available on our website www.tcpud.org or contact the District Clerk's office at (530) 580-6052.

Detected Compounds

The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.
If a substance or contaminant is not listed, it is either not detected above the detection limit in our sources or not required to be reported or sampled.

				Tahoe City Main						Alpine Peaks	McKinney / Quail		Rubicon			MCL Violation	Major Origins in Drinking Water
Identify your system >				Highlands Well #1	Highlands Well #2	T.C. Well #2	T.C. Well #3	Well #4	Tahoe Tavern Well	Riley Spring	Lake Tahoe Intake	Crystal Way Well	Rubicon Well #1	Rubicon Well #2	Rubicon Well #3		
Contaminant (Units)	Sample Year	MCL	PHG (MCLG)														
Primary Drinking Water Standards (PDWS)																	
Arsenic (ppb)	2014 (2020)	10	4	(4.1)	(2.3)	ND	(ND)	(ND)	ND	ND	ND	ND	ND	ND	ND	NO	Erosion of natural deposits
Nickel (ppb)	2014 (2020)	100	12	20	20	20	21	(ND)	20	20	ND	ND	ND	ND	ND	NO	Erosion of natural deposits
Secondary Drinking Water Standards (SDWS)																	
Calcium (ppm)	2014 (2020)	N/A	N/A	7.6	7.5	12.3	10.2	(9.1)	16.7	10.1	7.9	11	8.8	10.2	8.1	N/A	Leaching from natural deposits
Chloride (ppm)	2014 (2020)	500	N/A	0.5	0.6	0.5	0.3	(ND)	ND	0.2	1.8	0.3	0.3	3.0	1.1	NO	
Odor (TON)	2014 (2020)	1	3	ND	ND	ND	2	(0)	ND	ND	ND	ND	ND	ND	ND	NO	Naturally-occurring organic materials
Sodium (ppm)	2014 (2020)	N/A	N/A	14.6	11.6	5.0	5.2	(4.1)	5.3	2.9	6.0	4.4	6.6	6.7	5.4	N/A	Leaching from natural deposits
Specific Conductance [E.C.] (µS/cm)	2014 (2020)	1600	N/A	215	189	164	160	(130)	217	115	99.2	119	111	127	78.8	NO	Substances that form ions when in water
Sulfate (ppm)	2014 (2020)	500	N/A	1.3	0.9	1.7	3.6	(1.7)	0.8	ND	1.7	0.5	ND	ND	5.4	NO	Runoff/leaching from natural deposits
Total Alkalinity [as CaCO3] (ppm)	2014 (2020)	N/A	N/A	93.5	87.3	69.3	66.7	(60)	93.7	53.0	45.3	54.6	44.8	47.6	38.9	NO	Leaching from natural deposits
Total Dissolved Solids (ppm)	2014 (2020)	1000	N/A	72	80	83	98	(88)	125	84	65	96	38	92	16	NO	Erosion of natural deposits
Total Hardness [as CaCO3] (ppm)	2014 (2017)	N/A	N/A	44	41	59	51	(43)	74	39	29	43	30	35	23	N/A	Leaching from natural deposits
Treatment Plant Turbidity **(See Note 1)**	2020	TT=95% of samples ≤ 0.3 NTU	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	100% ≤ 0.3 NTU	N/A	N/A	N/A	N/A	NO	Movement of sediments and minute deposits
Turbidity (NTU)	2014 (2020)	5	N/A	0.25	0.45	0.17	0.23	(0.10)	0.19	0.16	N/A	0.13	0.15	0.55	0.15	NO	
Zinc (ppm)	2014 (2020)	5	N/A	ND	ND	ND	ND	(ND)	ND	ND	ND	ND	ND	ND	0.15	NO	Runoff/leaching from natural deposits
Radiological Monitoring																	
Radon 222 (pCi/L)	2003	N/A	N/A	547	1190	NS	1230	NS	1120	613	3360	465	613	513	422	N/A	Erosion of natural deposits
Disinfection By-products and Disinfectant Residuals																	
Total Trihalomethanes [TTHM] (ppb)	2020	80	N/A	ND						N/R	14		ND			NO	Byproduct of drinking water chlorination
Haloacetic Acids [HAA5] (ppb)	2020	60	N/A	ND						N/R	15		ND			NO	
Chlorine (ppm)	2020	4 (MRDL)	4 (MRDLG)	RAA: 0.35, RANGE: 0.00-0.47						N/A	RAA: 0.52, RANGE: 0.00-0.90		RAA: 0.35, RANGE: 0.00-0.69			NO	Drinking water disinfectant added for treatment
Microbiological Monitoring																	
Total Coliform (P /A)	2020	1	(0)	159T / 159A / 0P						24T/ 24A/ 0P	36T / 36A / 0P		24T / 24A / 0P **(See Note 2)**			NO	Naturally present in the environment
E-Coli (P /A)	2020	1	(0)	159T / 159A / 0P						24T/ 24A/ 0P	36T / 36A / 0P		24T / 24A / 0P **(See Note 2)**			NO	Human and Animal Fecal Waste

Lead and Copper Sampling Results

Water System	Constituent	Year Sampled	# of Sites Sampled	90th % Results	# of Sites Exceeding Action Level	Action Level	PHG
Tahoe City Main	Lead (ppb)	2019	20	1.7	0	15	0.2
	Copper (ppm)		20	0.160	0	1.3	0.3
Alpine Peaks	Lead (ppb)	2020	5	8.75	0	15	0.2
	Copper (ppm)		5	0.0935	0	1.3	0.3
McKinney/ Quail	Lead (ppb)	2018	10	3.7	1	15	0.2
	Copper (ppm)		10	0.79	0	1.3	0.3
Rubicon	Lead (ppb)	2018	10	2.4	0	15	0.2
	Copper (ppm)		10	0.66	0	1.3	0.3
Zero schools were tested for Lead in 2020							
Typical Sources:	Lead: Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits						
	Copper: Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives						

Note 1: Treatment Plant Turbidity results are for the McKinney/Quail Water Treatment Plant (Lake Tahoe Intake) only. Additional requirements include (1) shall not exceed 1 NTU for more than one continuous hour, (2) shall not exceed 1 NTU at four-hour intervals, and (3) shall not exceed 1.0 NTU for more than eight consecutive hours. TCPUD was in compliance with all Turbidity require-

Note 2. **Note for Rubicon System Only- Monitoring Violation:** TCPUD failed to monitor the **Rubicon** water system (population served = 703) as required for drinking water standards in September 2020 and, therefore, were in violation of a regulation. Even though this was not an emergency in which we would have notified you immediately, as our customers you have a right to know the details of this situation. TCPUD is required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During September of 2020, we inadvertently only collected one bacteriological sample for coliforms (opposed to the required two) and therefore, cannot be sure of the quality of the drinking water during that time period. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We have since routinely collected the required number of samples, which have all met drinking water standards. We have reevaluated our scheduling system to ensure this will not happen again. There is nothing you need to do at this time.

Health Effects and General Information

Lead: If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. TCPUD is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/lead. Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and/or flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the U.S. EPA Safe Drinking Water Hotline (1-800-426-4791).

Radon: Radon is a radioactive gas that you cannot 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. You should pursue radon removal for your home if the level of radon in your air is 4 picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that are not too costly. For additional information, call your State radon program (1-800-745-7236), the USEPA Safe Drinking Water Hotline (1-800-426-4791), or the National Safety Council on Radon Hotline (1-800-767-7236).

Arsenic: While your drinking water meets the federal and state standard for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The U.S. Environmental Protection Agency continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Tahoe City Public Utility District
P. O. Box 5249
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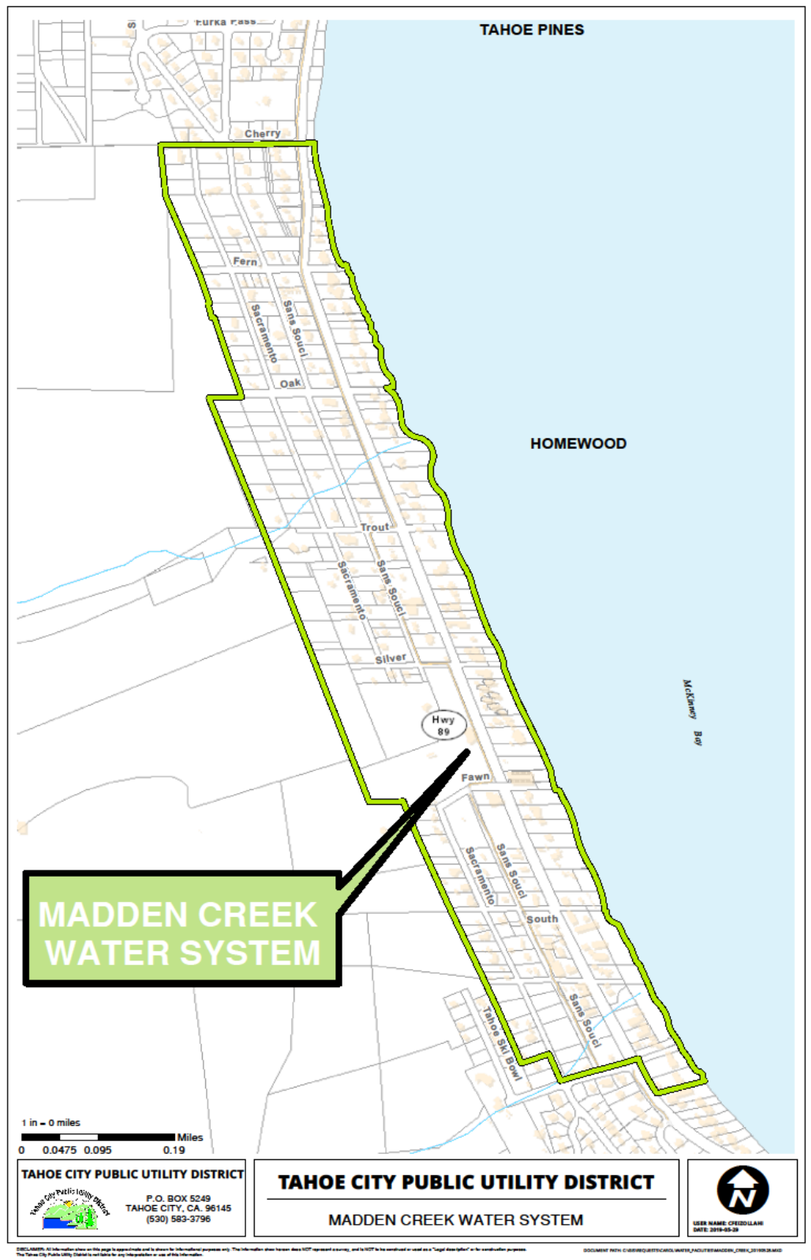
530-583-3796



Water Conservation Links:

- www.saveourwater.com/
- www.h2ouse.org/ water-conservation/
- www.tcpud.org/utility-services/water/water-conservation
- www.epa.gov/watersense/
- www.wateruseitwisely.com/100-ways-to-conserve

Tahoe City Public Utility District
2020 Madden Creek Water System - Annual Water Quality Consumer Confidence Report

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

To Our Valued Madden Creek Customers:

The enclosed information is a report of the quality and laboratory analysis of the drinking water for the Madden Creek Water System during the calendar year of 2020. On page two you will find a table showing data from samples collected and contains all detected contaminants in the water, as well as general information on water quality and different standard health effect language for various contaminants. This report can also be viewed on our website at: www.tcpud.org/ccr/maddencreek.pdf.

While water supplied to Madden Creek is classified as either treated surface water or groundwater, it is important for you to understand all potential sources of 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 U.S. EPA's Safe Drinking Water Hotline (1-800-426-4791). 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. U.S. 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 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. Contaminants that may be present in source water include:

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

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

For questions or additional information please call Utilities Superintendent, Dan Lewis, at (530) 580-6330 or the USEPA Safe Drinking Water Hotline at (800) 426-4791 or view their website: https://www.epa.gov/ground-water-and-drinking-water To obtain general District information, to express your views, or to participate in the decision-making process of the TCPUD, you are welcome to attend or view online our Board of Directors meetings. The District Board of Directors meeting schedule, agendas and videos are available on our website www.tcpud.org or contact the District Clerk's office at (530) 580-6052.

Detected Compounds The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old. If a substance or contaminant is not listed, it is either not detected above the detection limit in our sources or not required to be reported or sampled.

				Identify your system >	Madden Creek Water	McKinney / Quail		Violation	Major Origins in Drinking Water
Contaminant (Units)	Sample Year	MCL	PHG (MCLG)		Silver Street Well	Lake Tahoe Intake	Crystal Way Well		
Secondary Drinking Water Standards (SDWS)									
Calcium (ppm)	2016 (2014)	N/A	N/A		16	(7.9)	(11)	N/A	Leaching from natural deposits
Chloride (ppm)	2016 (2014)	500	N/A		1.4	(1.8)	(0.3)	NO	Leaching from natural deposits
Sodium (ppm)	2016 (2014)	N/A	N/A		5.0	(6.0)	(4.4)	N/A	Leaching from natural deposits
Specific Conductance [E.C.] (µS/cm)	2016 (2014)	1600	N/A		130	(99.2)	(119)	NO	Substances that form ions when in water
Sulfate (ppm)	2016 (2014)	500	N/A		ND	(1.7)	(0.5)	NO	Runoff/leaching from natural deposits
Total Alkalinity [as CaCO3] (ppm)	2016 (2014)	N/A	N/A		66	(45.3)	(54.6)	NO	Leaching from natural deposits
Total Dissolved Solids (ppm)	2016 (2014)	1000	N/A		100	(65)	(96)	NO	Erosion of natural deposits
Total Hardness [as CaCO3] (ppm)	2016 (2014)	N/A	N/A		58	(29)	(43)	N/A	Leaching from natural deposits
Treatment Plant Turbidity (Note 1)	2020	TT=95% of samples ≤ 0.3 NTU	N/A		N/A	100% ≤ 0.3 NTU	N/A	NO	Movement of sediments and minute deposits
Turbidity (NTU)	2016 (2014)	5	N/A		0.11	N/A	(0.13)	NO	Movement of sediments and minute deposits
Radiological Monitoring									
Radon 222 (pCi/L)	2003	N/A	N/A		N/A	3360	465	N/A	Erosion of natural deposits
Disinfection By-products and Disinfectant Residual									
Total Trihalomethanes [TTHM] (ppb)	2020	80	N/A		N/A	14		NO	By product of drinking water chlorination
Haloacetic Acids [HAA5] (ppb)	2020	60	N/A		N/A	15		NO	
Chlorine (ppm)	2020	4 (MRDL)	4 (MRDLG)		N/A	RAA: 0.52, RANGE: 0.00-0.90		NO	Drinking water disinfectant added for treatment
Microbiological Monitoring									
Total Coliform (P /A)	2020	1	(0)		24T/ 24A/ 0P	36T / 36A / 0P		NO	Naturally present in the environment
E-Coli (P /A)	2020	1	(0)		24T/ 24A/ 0P	36T / 36A / 0P		NO	Human and Animal Fecal Waste

Note 1: Treatment Plant Turbidity results are for the McKinney/Quail Water Treatment Plant (Lake Tahoe Intake) only. Additional requirements include (1) shall not exceed 1 NTU for more than one continuous hour, (2) shall not exceed 1 NTU at four-hour intervals, and (3) shall not exceed 1.0 NTU for more than eight consecutive hours. TCPUD was in compliance with all Turbidity requirements in 2020.

Lead and Copper Sampling Results

Water System	Constituent	Year Sampled	# of Sites Sampled	90th % Results	# of Sites Exceeding Action Level	Action Level	PHG
Madden Creek	Lead (ppb)	2018	5	2.0	0	15	0.2
	Copper (ppm)		5	0.480	0	1.3	0.3
Zero schools requested Lead sampling in 2020							
Typical Sources:	Lead: Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits						
	Copper: Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives						

Where does your water come from?

In 2020 approximately 96% of the water supplied to the system was from the Silver Street Well and the remaining 4% came from the McKinney/Quail system, through the new interconnection on South Street. All of the drinking water supplied to this water system this year was classified as groundwater, except a portion of the 4% was surface water which came from the Lake Tahoe Intake. The groundwater sources are wells drilled deep into the ground, providing clean, high quality water that consistently meets all standards without significant treatment. The Madden creek Water System serves all residents from Cherry Street to Tahoe Ski Bowl Way in Homewood, CA. There have been no contaminants detected in the water supply, however the sources are still considered vulnerable to the activities located near the drinking water source. Well construction and security measures should provide protection from most contaminating activities. Copies of all source water assessments are available for review at the TCPUD offices during regular business hours. Upon request, copies can be sent to individuals by contacting the Utilities Superintendent at (530) 580-6330.

Health Effects and General Information

Lead: If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. TCPUD is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/lead.

Terms and Abbreviations Used in This Report

A	Number of tests absent of bacteria	PDWS	Primary Drinking Water Standards. MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
E.C.	Electrical Conductivity	PHG	Public Health Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.
MCL	Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.	ppb	Parts Per Billion: Parts contaminant for every 1 billion parts of water.
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 are set by the U.S. Environmental Protection Agency.	ppm	Parts Per Million: Parts contaminant for every 1 million parts of water.
MRDL	Maximum Residual Disinfection 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.	RAA	Running Annual Average
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.	SDWS	Secondary Drinking Water Standards. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.
N/A	Not Applicable	T	Number of tests for bacteria (Laboratory analysis)
N/R	Not Regulated or Not Required	TT	Treatment Technique: A required process intended to reduce the level of contaminant in drinking water.
NTU	Nephelometric Turbidity Unit: Measure of water clarity using light scattering	Units	Number of units measured
P	Number of tests detecting presence of bacteria	µS/cm	Microsiemens Per Centimeter: Measure of electrical current flow through a solution.
pCi/L	Picocuries Per Liter: Measure of radioactivity per 1 liter of water.		

Tahoe City Public Utility District
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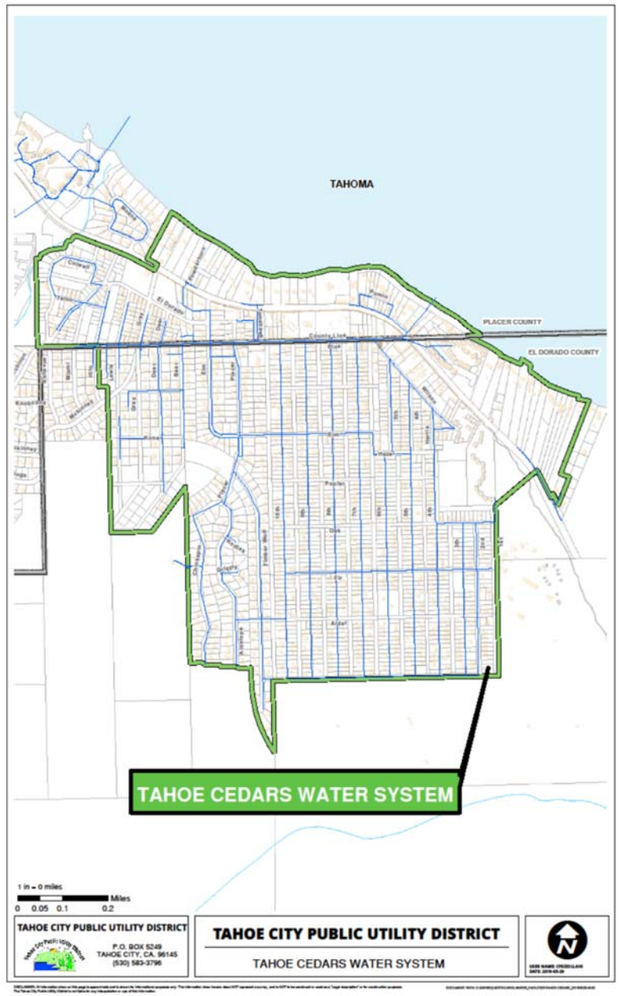

Where does your water come from?

In 2020, approximately 99.94 % of the water supplied to the system was from the Elm Street Well. Approximately 0.06 % was provided through the new interconnection by water sources in the McKinney-Quail System. All of the drinking water supplied to the water system is classified as groundwater or treated surface water. Sources include wells drilled deep into the ground, and treated surface water providing clean, high quality water that consistently meets all standards without significant treatment. The Tahoe Cedars system serves all residents between 6650 to 7181 West Lake Blvd on the lake side and the Tahoe Cedars Subdivision area**.** A Source Water Assessment for each active source was completed in 2002 or 2014. The source is considered most vulnerable to the following activity not associated with any detected contaminants: Sewer Collection Systems and Surface Water. There have been no contaminants detected in the water supply, however the sources are still considered vulnerable to the activities located near the drinking water source. Well construction and security measures should provide protection from most contaminating activities. Copies of all source water assessments are available for review at the TCPUD offices during regular business hours. Upon request, copies can be sent to individuals by contacting the Utilities Superintendent at (530) 580-6330.

Water Conservation Links:
- www.saveourwater.com/
- www.h2ouse.org/ water-conservation/
- www.tcpud.org/utility-services/water/water-conservation
- www.epa.gov/watersense/
- www.wateruseitwisely.com/100-ways-to-conserve

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

Tahoe City Public Utility District
2020 Tahoe Cedars Water System - Annual Water Quality Consumer Confidence Report

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

To Our Valued Tahoe Cedars Customers:

The enclosed information is a report of the quality and laboratory analysis of the drinking water for the Tahoe Cedars Water System during the calendar year of 2020. On page two you will find a table showing data from samples collected and contains all detected contaminants in the water, as well as general information on water quality and different standard health effect language for various contaminants. This report can also be viewed at our website at: www.tcpud.org/ccr/tahoecedars.pdf.

While water supplied to Tahoe Cedars is classified as either treated surface water or groundwater, it is important for you to understand all potential sources of 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 U.S. EPA's Safe Drinking Water Hotline (1-800-426-4791). 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. U.S. 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 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. Contaminants that may be present in source water include:

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

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

For questions or additional information please call Utilities Superintendent, Dan Lewis, at (530) 580-6330 or the USEPA Safe Drinking Water Hotline at (800) 426-4791 or view their website: https://www.epa.gov/ground-water-and-drinking-water To obtain general District information, to express your views, or to participate in the decision-making process of the TCPUD; you are welcome to attend or view online our Board of Directors meetings. The District Board of Directors meeting schedule, agendas and videos are available on our website www.tcpud.org or contact the District Clerk's office at (530) 580-6052.

Detected Compounds The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old. If a substance or contaminant is not listed, it is either not detected above the detection limit in our sources or not required to be reported or sampled.

				Identify your system >	Tahoe Cedars	McKinney / Quail		
Contaminant (Units)	Sample Year	MCL	PHG (MCLG)	Elm Street Well	Lake Tahoe Intake	Crystal Way Well	MCL Violation	Major Origins in Drinking Water
Secondary Drinking Water Standards (SDWS)								
Calcium (ppm)	2016 (2014)	N/A	N/A	17	(7.9)	(11)	N/A	Leaching from natural deposits
Chloride (ppm)	2016 (2014)	500	N/A	1.8	(1.8)	(0.3)	N/A	Leaching from natural deposits
Sodium (ppm)	2016 (2014)	N/A	N/A	5.9	(6.0)	(4.4)	N/A	Leaching from natural deposits
Specific Conductance [E.C.] (µS/cm)	2016 (2014)	1600	N/A	140	(99.2)	(119)	NO	Substances that form ions when in water
Sulfate (ppm)	2014	500	N/A	ND	1.7	0.5	NO	Runoff/leaching from natural deposits
Total Alkalinity [as CaCO3] (ppm)	2016 (2014)	N/A	N/A	65	(45.3)	(54.6)	NO	Leaching from natural deposits
Total Dissolved Solids (ppm)	2016 (2014)	1000	N/A	97	(65)	(96)	NO	Erosion of natural deposits
Total Hardness [as CaCO3] (ppm)	2016 (2014)	N/A	N/A	58	(29)	(43)	N/A	Leaching from natural deposits
Treatment Plant Turbidity **(Note 1)**	2020	TT=95% of samples ≤ 0.3 NTU	N/A	N/A	100% ≤ 0.3 NTU	N/A	NO	Movement of sediments and minute deposits
Turbidity (NTU)	2016 (2014)	5	N/A	0.15	N/A	(0.13)	NO	Movement of sediments and minute deposits
Radiological Monitoring								
Radon 222 (pCi/L)	2003	N/A	N/A	N/A	3360	465	N/A	Erosion of natural deposits
Disinfection By-products and Disinfectant Residual								
Total Trihalomethanes [TTHM] (ppb)	2020	80	N/A	N/A	14		NO	By product of drinking water chlorination
Haloacetic Acids [HAA5] (ppb)	2020	60	N/A	N/A	15		NO	
Chlorine (ppm)	2020	4 (MRDL)	4 (MRDLG)	N/A	RAA: 0.52, RANGE: 0.00-0.90		NO	Drinking water disinfectant added f or treatment
Microbiological Monitoring								
Total Coliform (P /A)	2020	1P	(0P)	80T/ 77A/ 3P	36T / 36A / 0P		**YES (See Note 2)**	Naturally present in the environment
E-Coli (P /A)	2020	1P	(0P)	80T/ 80A/ 0P	36T / 36A / 0P		NO	Human and Animal Fecal Waste

Note 1: Treatment Plant Turbidity results are for the McKinney/Quail Water Treatment Plant (Lake Tahoe Intake) only. Additional requirements include (1) shall not exceed 1 NTU for more than one continuous hour, (2) shall not exceed 1 NTU at four-hour intervals, and (3) shall not exceed 1.0 NTU for more than eight consecutive hours. TCPUD was in compliance with all Turbidity requirements in 2020.

Note 2: Total Coliform (for Tahoe Cedars System):
Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. When this occurs, we are required to conduct an assessment to identify and correct any discovered problems. During 2020 we were required to conduct one **Level 1 Assessment** (a study of the water system to identify potential problems and determine, if possible, why total coliform bacteria have been discovered in our water system) which was completed in July. During our assessment we concluded that debris buildup in the distribution system piping may have been stirred up during hydrant flow testing, water main repairs, or an increase in distribution system demands. We resolved this issue by temporarily disinfecting the distribution system with chlorine. Once all chlorine residuals had diminished, additional samples were immediately collected and the results showed no further coliforms present.

Lead and Copper Sampling Results

Water System	Constituent	Year Sampled	# of Sites Sampled	90th % Results	# of Sites Exceeding Action Level	Action Level	PHG
Tahoe Cedars	Lead (ppb)	2018	10	1.5	0	15	0.2
	Copper (ppm)		10	0.29	0	1.3	0.3
Zero schools requested Lead sampling in 2019							
Typical Sources:	Lead: Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits						
	Copper: Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives						

Health Effects and General Information

Lead: If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. TCPUD is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/lead.

Terms and Abbreviations Used in This Report

A	Number of tests absent of bacteria	PDWS	Primary Drinking Water Standards. MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
E.C.	Electrical Conductivity	PHG	Public Health Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.
MCL	Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.	ppb	Parts Per Billion: Parts contaminant for every 1 billion parts of water.
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 are set by the U.S. Environmental Protection Agency.	ppm	Parts Per Million: Parts contaminant for every 1 million parts of water.
MRDL	Maximum Residual Disinfection 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.	RAA	Running Annual Average
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.	SDWS	Secondary Drinking Water Standards. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.
N/A	Not Applicable	T	Number of tests for bacteria (Laboratory analysis)
N/R	Not Regulated or Not Required	TT	Treatment Technique: A required process intended to reduce the level of contaminant in drinking water.
NTU	Nephelometric Turbidity Unit: Measure of water clarity using light scattering	Units	Number of units measured
P	Number of tests detecting presence of bacteria	µS/cm	Microsiemens Per Centimeter: Measure of electrical current flow through a solution.
pCi/L	Picocuries Per Liter: Measure of radioactivity per 1 liter of water.		

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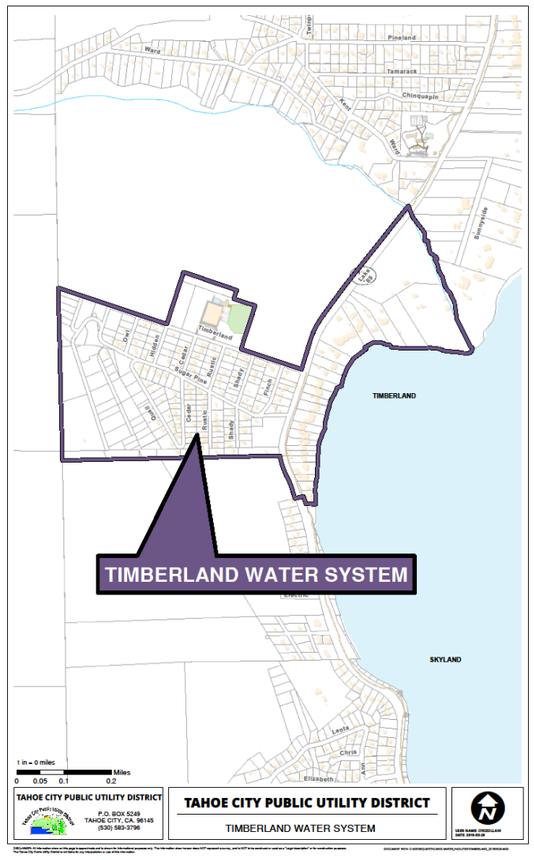

Water Conservation Links:

- www.saveourwater.com/
- www.h2ouse.org/ water-conservation/
- www.tcpud.org/utility-services/water/water-conservation
- www.epa.gov/watersense/
- www.wateruseitwisely.com/100-ways-to-conserve

Where does your water come from?

All of the drinking water supplied to this water system is classified as groundwater. Sources include wells drilled deep into the ground, providing clean, high quality water that consistently meets all standards without significant treatment. The Timberland water system serves all residents between 2470 and 2716 West Lake Blvd on the lake side and the Timberland Subdivision area**.** A Source Water Assessment for each active source was completed in 2002. The source is considered most vulnerable to the following activity not associated with any detected contaminants: Sewer Collection Systems. There have been no contaminants detected in the water supply, however the sources are still considered vulnerable to the activities located near the drinking water source. Well construction and security measures should provide protection from most contaminating activities. Copies of all source water assessments are available for review at the TCPUD offices during regular business hours. Upon request, copies can be sent to individuals by contacting the Utilities Superintendent at (530) 580-6330.

Tahoe City Public Utility District
2020 Timberland Water System - Annual Water Quality Consumer Confidence Report

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

To Our Valued Timberland Customers:

The enclosed information is a report of the quality and laboratory analysis of the drinking water that was delivered to the Timberland Water System during the calendar year of 2020. On page two you will find a table showing data from samples collected and contains all detected contaminants in the water, as well as general information on water quality and different standard health effect language for various contaminants. This report can also be viewed on our website at: www.tcpud.org/ccr/timberland.pdf.

While water supplied to Timberland is groundwater which comes from a well drilled deep within the earth, it is important for you to understand all potential sources of 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 U.S. EPA's Safe Drinking Water Hotline (1-800-426-4791). 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. U.S. 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 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. Contaminants that may be present in source water include:

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

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

For questions or additional information please call Utilities Superintendent, Dan Lewis, at (530) 580-6330 or the USEPA Safe Drinking Water Hotline at (800) 426-4791 or view their website: https://www.epa.gov/ground-water-and-drinking-water To obtain general District information, to express your views, or to participate in the decision-making process of the TCPUD; you are welcome to attend or view online our Board of Directors meetings. The District Board of Directors meeting schedule, agendas and videos are available on our website www.tcpud.org or contact the District Clerk's office at (530) 580-6052.

Detected Compounds

The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old. If a substance or contaminant is not listed, it is either not detected above the detection limit in our sources or not required to be reported or sampled.

			Identify your system >	Timberland		
Contaminant (Units)	Sample Year	MCL	PHG (MCLG)	Well #1	Violation	Major Origins in Drinking Water
Primary Drinking Water Standards (PDWS)						
Aluminum (ppm)	2016	1	0.6	0.13	NO	Erosion of natural deposits
Barium (ppb)	2016	1000	1000	15.81	NO	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Secondary Drinking Water Standards (SDWS)						
Calcium (ppm)	2019	N/A	N/A	18	N/A	Leaching from natural deposits
Chloride (ppm)	2016	500	N/A	0.21	NO	Leaching from natural deposits
Sodium (ppm)	2019	N/A	N/A	5.7	N/A	Leaching from natural deposits
Specific Conductance [E.C.] (µS/cm)	2019	1600	N/A	180	NO	Substances that form ions when in water
Total Alkalinity as [CaCO3] (ppm)	2019	N/A	N/A	100	NO	Leaching from natural deposits
Total Dissolved Solids (ppm)	2019	1000	N/A	110	NO	Erosion of natural deposits
Total Hardness [as CaCO3] (ppm)	2019	N/A	N/A	82	N/A	Leaching from natural deposits
Turbidity (NTU)	2016	5	N/A	0.33	NO	Movement of sediments and minute deposits
Microbiological Monitoring						
Total Coliform (P /A)	2020	1	(0)	40T/ 37A/ 3P	YES (1)	Naturally present in the environment
E-Coli (P /A)	2020	1	(0)	40T/ 40A/ 0P	NO	Human and Animal Fecal Waste

Lead and Copper Sampling Results

Water System	Constituent	Year Sampled	# of Sites Sampled	90th % Results	# of Sites Exceeding Action Level	Action Level	PHG
Timberland	Lead (ppb)	2020	5	0	0	15	0.2
	Copper (ppm)		5	0.055	0	1.3	0.3
Tahoe Lake Elementary (at Rideout) was tested for Lead in 2019.							
Typical Sources	Lead: Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits						
	Copper: Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives						

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Traduzcalo o hable con alguien que lo entienda bien.

Terms and Abbreviations Used in This Report

A	Number of tests absent of bacteria	PDWS	Primary Drinking Water Standards. MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
MCL	Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.	PHG	Public Health Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.
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 are set by the U.S. Environmental Protection Agency.	ppb	Parts Per Billion: Parts contaminant for every 1 billion parts of water.
NA	Not Applicable	ppm	Parts Per Million: Parts contaminant for every 1 million parts of water.
N/R	Not Regulated or Not Required	SDWS	Secondary Drinking Water Standards. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.
NTU	Nephelometric Turbidity Unit: Measure of water clarity using light scattering	T	Number of tests for bacteria (Laboratory analysis)
P	Number of tests detecting presence of bacteria	Units	Number of units measured
		µS	Microsiemens: Measure of electrical current flow through a solution

Health Effects and General Information

Lead: If present, elevated levels of lead can cause serious health problems, especially for pregnant women and your children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. TCPUD is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/lead.

1. **Note for Timberland System Violation:** Total Coliform is bacteria that is naturally present in the environment and used as an indicator that other, potentially harmful, waterborne pathogens may be present, or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to search for potential problems in the water treatment or distribution system. When this occurs, we are required to conduct an assessment to identify and correct any discovered problems. During 2020 we were required to conduct one **Level 1 Assessment** (a study of the water system to identify potential problems and determine, if possible, why total coliform bacteria was discovered in our water system) which was completed July 14, 2020. During our assessment we concluded that the system demand was increased during the 4th of July holiday, possibly scouring mains and releasing material built up in old steel pipes. We resolved this issue by performing a complete distribution system disinfection and flushing procedure. Samples were collected following this procedure, once chlorine residuals were diminished, which showed good results.

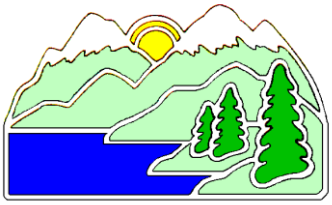
Appendix H

WATER CONSERVATION AND DROUGHT RESPONSE STANDARDS ORDINANCE 304

Tahoe City Public Utility District

Ordinance 304

Water Conservation and Drought Response Standards



Adopted February 18, 2022

General Manager
Sean Barclay

Board of Directors
John Pang, President
Dan Wilkins, Vice President
Ellie Beals
Judy Friedman
Gail Scoville

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Section 1
General Policies Governing Water Conservation and Drought Response Standards

1.01 GENERAL

Ordinance 304 of the Tahoe City Public Utility District (hereinafter referred to as "District,"), which serves as the District's Water Shortage Contingency Plan, establishes water conservation requirements and drought response standards.

1.02 PURPOSE

The purpose of this Ordinance is to preserve water resources, reduce the risk and severity of water shortages when drought or natural disaster occurs and to establish a drought preparedness and response plan. The prevention of water waste is an environmentally sound way to protect, conserve, and prevent unacceptable diminution of the District's water supplies, while minimizing costs to the District and expense to its customers.

This Ordinance establishes drought response stages and measures to ensure that the water resources available to the District are put to the maximum beneficial use, that unreasonable use or unreasonable method of use is prevented, and that conservation of water is accomplished in the interest of District customers and for the health, safety, and welfare of the public.

This Ordinance provides for the Board of Directors to establish, when funds are available, a rebate program for District customers to encourage conservation and reduce consumer costs.

1.03 WATER WASTE PROHIBITED

No Owner shall waste water or cause, use or permit the use of water received from the District for residential, commercial, industrial, governmental, or any other purpose in any manner contrary to any provision in this Ordinance.

Mandatory drought response measures shall be implemented based upon the declaration of drought response stages. No Owner shall use water in quantities in excess of the use permitted by the conservation stage in effect pursuant to this Ordinance.

1.04 METER TAMPERING PROHIBITED

Any type of water meter tampering, modification, alteration, or damage, is expressly prohibited and shall be considered a violation of this Ordinance. Owners with meters that are found to have been tampered with, modified, altered, or damaged, are considered to be in violation of this Ordinance; they may be penalized and shall be dealt with as described in Section 3.03.4 Fourth Violation.

1.05 APPLICATION

This Ordinance applies to all Owners, customers and users who occupy or control water use on any premise within the District's water service area and to those water users and their customers whose parcels are within or outside of District boundaries and who receive service through contract with the District. Certain provisions of this Ordinance also apply to all Owners, customers and users within the District's sewer service area; specifically those provisions related to the installation of low-flow plumbing fixtures, the installation of pressure regulators, and portions of the District's rebate program.

This Ordinance shall apply to potable water use and to non-potable water controlled by the District; although all Owners, customers, and users with non-potable water sources on their property should consider using the information in this Ordinance as a recommendation on conserving non-potable water as well. This Ordinance may apply to other non-potable water uses depending on regulatory requirements.

1.05.1 Contracted Sales

When the District enters into a contract for the sale of water to a public or private water system or entity, within or outside District boundaries, the system and its customers shall comply with all conditions contained herein. It shall be the responsibility of the system owner or the person signatory to the contract to ensure that all water conservation conditions are satisfied by his/her customers.

1.05.2 Owner Defined

The term "Owner" as used in this Ordinance, shall mean parcel owner, customer, water user, customer under contract or his/her water customers.

1.06 AUTHORITY

Nothing contained within this Ordinance shall be construed to limit the authority of the Board of Directors to amend, supplement, or change this Ordinance or any rules and regulations applicable thereto at any time.

1.07 INTERPRETATION

The General Manager of the District is charged with interpretation, regulation, and enforcement of the provisions of this Ordinance.

In the event any provision of this Ordinance conflicts or overlaps with any mandatory State regulation related to water conservation, the most stringent shall apply.

1.08 ADMINISTRATION

The provisions of this Ordinance 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.

1.09 DETERMINATION OF CONSERVATION STAGE

The District operates several separate water service areas. Drought Response Stage 1 is the normal operating stage for all water service areas and is always in effect.

Drought Response Stages 2, 3, 4, 5, and 6 may be called independently by water service area, and shall be based upon supply and demand of available water within each water service area. However, if regional conditions warrant, Drought Response Stages 2, 3, 4, 5, and 6 may be called for all water service areas collectively. Drought Response Stages 2, 3, 4, 5, and 6 shall be determined by the Board of Directors.

1.10 DECLARATION, IMPLEMENTATION AND TERMINATION OF DROUGHT RESPONSE STAGES 2, 3, 4, 5, AND 6

An emergency water conservation plan is necessary to minimize the effect of the water shortages that can arise on short notice during natural disasters or drought conditions. Upon declaration of Drought Response Stage 2, 3, 4, 5, or 6, the General Manager shall be authorized to implement and

enforce any or all of the measures identified herein.

Drought Response Stages 2, 3, 4, 5, and 6 will be declared by the Board of Directors. In emergency situations, the General Manager may declare a Drought Response Stage 2, 3, 4, 5, or 6 initially, to be followed up with a Board of Directors' declaration as soon as reasonably possible. Each drought response stage will be triggered by specific conditions related to the operating capacities of District water sources and the water distribution system, and/or any regulatory mandates. Examples may include, but shall not be limited to, severe local drought conditions, regulatory mandates, significant depletion of pumping capacity due to mechanical failure or aquifer depletion, major distribution system failures such as water or transmission main failure, water tank failure, impacted water quality or water system contamination, natural disasters such as fire, weather or earthquake events, or long term power outages. The drought response stage chosen will vary on the severity of the situation and/or per regulatory mandates.

The District shall monitor the projected supply and demand for water by its customers on a regular basis. Following the declaration of any drought response stage, the District will implement appropriate response actions. If emergency conditions warrant the rationing or emergency conservation of water, Owners shall be notified of the drought response stage by one or more of the following methods:

- **a)** Door hanger notices delivered to the property served
- **b)** Mass mailing to Owners, including billing inserts
- **c)** Email notification to Owners, if such contact information is readily available or on file with the District
- **d)** Public postings, including signs in affected neighborhoods and subdivisions
- **e)** Announcements in local media, such as newspapers, radio and television
- **f)** Announcements via social media and on the District's website
- **g)** Any other methods deemed appropriate by the General Manager

Implementation of Drought Response Stage 2, 3, 4, 5, or 6 may result in an increased level of monitoring by District staff to ensure compliance.

The District will regularly monitor drought conditions and promptly recommend that the drought response stage level increases if conditions worsen. The General Manager will rescind Drought Response Stage 2, 3, 4, 5, or 6 if warranted by improved conditions or reduced regulatory requirements.

1.11 VIOLATIONS

In order to protect the health, safety, and welfare of the community, the District shall serve any Owner found to be violating any provision of this Ordinance with written notice, in accordance with Section 3, stating the nature of the violation, and providing a reasonable time limit for the satisfactory correction. If a violation is not corrected within the time limit prescribed, the General Manager shall exercise his/her authority to restrict the water service to the property, correct the violation, or disconnect the water service from the District's system, based upon the severity of the violation. Disconnect and reconnect fees shall be assessed per the District's fee schedule, as well as any other applicable fees and/or penalties.

1.12 REQUESTS FOR EXEMPTION OR DEVIATION

All requests for exemption or deviation from the provisions of this Ordinance shall be submitted, in writing, by the Owner to the General Manager. The Owner must obtain written permission and not

assume that permission will be forthcoming for exemptions or deviations. The District will charge a fee to process the exemption request in accordance with the District fee schedule.

The General Manager may temporarily or permanently exempt Owners from the provisions of this Ordinance, or impose reasonable conditions in lieu of compliance, if the General Manager finds that any of the following conditions exist:

1.12.1 Serious Economic Hardship

The requirements would cause an unnecessary and undue economic hardship upon the Owner, threatening the Owner's primary source of income as an individual or a business.

1.12.2 Adverse Impact on Health and Safety

Strict compliance would create an emergency condition, as determined by the Board, adversely affecting the health, protection, or safety of the Owner or the public.

1.13 APPEALS

Any person who is dissatisfied with any determination made under this Ordinance may at any time within 30 days after such determination make an appeal. The first appeal will be made to the General Manager. Should the appellant be dissatisfied with the decision of the General Manager, a subsequent appeal may be made to the Board of Directors within 30 days of the General Manager's decision.

1.13.1 Appeal to General Manager

Any person who is dissatisfied with any determination made under this Ordinance may at any time within 30 days after such determination, appeal to the General Manager by giving written notice to the General Manager and to the District Clerk. The appeal shall set forth the events and circumstances leading to the appeal, the nature of the ruling or interpretation from which relief is sought, the nature of the impact of the ruling on the appellant's property or business, together with any other reasons for the appeal.

The General Manager shall investigate the matter appealed and shall make a written decision, which shall be mailed to the appellant within 30 days of receipt of the appeal. If the dispute involves an amount of charges, the appellant shall pay the amount disputed in full when the charges are due. Any charge paid under protest will be refunded to the appellant should the General Manager determine that the charges were wrongfully made.

1.13.2 Appeal to Board of Directors

Any person who is dissatisfied with any determination made by the General Manager may at any time within 30 days after such determination, appeal to the Board of Directors by giving written notice to the General Manager and to the District Clerk. The appeal shall set forth the events and circumstances leading to the appeal, the nature of the ruling or interpretation from which relief is sought, the nature of the impact of the ruling on the appellant's property or business, together with any other reasons for the appeal.

The General Manager shall transmit to the Board of Directors a report upon the matter appealed. The Board of Directors shall cause written notice to be given at least ten (10) days prior to the time fixed for hearing to the appellant of the time and place fixed by the Board of Directors for hearing such appeal. The Board shall consider all testimony and make a decision, which shall be mailed to the appellant within 30 days of the date of the Board action. The Board of Directors may, at any

time, upon its own motion, revise any determination made by the General Manager.

If the dispute involves an amount of charges, the appellant shall pay the amount disputed in full when the charges are due. Any charge paid under protest will be refunded to the appellant should the Board of Directors determine that the charges were wrongfully made.

1.14 SEVERABILITY

If any section, paragraph, sentence, clause, or phrase of this Ordinance or any part thereof is for any reason held to be invalid, such decision shall not affect the validity of the remaining portions of this Ordinance or any part thereof. The Board hereby declares that it would have passed each section, paragraph, sentence, clause, or phrase thereof, irrespective of the fact that any one or more sections, paragraphs, sentences, clauses, or phrases be declared invalid.

– END OF SECTION –

Section 2
Water Conservation Drought Response Stages

2.01 WATER CONSERVATION REQUIREMENTS
DROUGHT RESPONSE STAGE 1 - NORMAL CONDITIONS

The Owner shall not waste water and shall maintain all water service lines, from the point of delivery to the premises served, in good repair. Under normal, non-emergency conditions, the Owner shall meet the most current water conservation measures mandated by other government agencies or, implement the following measures, whichever is more restrictive. Drought Response Stage 1 may require that overall water consumption be reduced by up to 10%.

2.01.1 Metering: Tiered Water Consumption Charges

The Owner shall be assessed and pay a flat monthly water rate based upon size of the water meter as well as a charge for water consumption based upon a tiered billing structure, as identified in the current District water rate schedule. This billing structure is designed to encourage conservation, as the charge per thousand gallons of water consumed increases as water use increases.

2.01.2 Repair of Water Leaks

Any leak or abnormal use in plumbing and/or irrigation systems, including running toilets, or any leak in swimming pools, hot tubs, decorative water features or any other receptacle used to store water, shall be repaired when found, but in any case within ten (10) days of notice by the District to repair.

2.01.3 Water Runoff

Use of water which results in flooding or runoff in gutters, streets or onto adjacent property is not allowed.

2.01.4 Vehicle Wash

Automatic shutoff valves or nozzles will be used whenever a hose is used for cleaning vehicles. This subsection does not apply to any commercial car washing facility that utilizes a recycling system to capture or reuse water. Washing of vehicles is exempted where the health, safety and welfare of the public is dependent upon frequent vehicle cleanings, such as snow removal vehicles and garbage trucks.

2.01.5 Cleaning of Surfaces

Automatic shutoff valves or nozzles will be used whenever a hose is used for cleaning or clearing walkways, patios, tennis courts, decks, driveways, parking areas or other improved areas, whether paved or unpaved. Unrestricted hoses may be used to alleviate immediate fire or sanitation hazards.

2.01.6 Street Cleaning and/or Construction Site Prep

Use of potable water for street cleaning or construction site preparation purposes shall be prohibited. The prohibition on using potable water does not apply to all uses of water for construction activities (such as mixing concrete) and that it only applies to construction site preparation if no other method is available. .

2.01.7 Fire Hydrant Use Permit

A District "Water Service from Hydrant Permit" must be obtained before use of any fire hydrant for any purpose other than fire suppression or emergency aid.

2.01.8 Water Pressure

Water pressure shall not exceed 60 psi within residential or non-residential structures. Pressure will be checked at final inspection of new construction, reconstruction, and remodel to ensure compliance.

2.01.9 Low-Flow Plumbing Fixtures

a) Residential Units, Apartments, and Condominiums
Residential New Construction or Complete Reconstruction

Low-flow fixtures are required in all residential structures that are subject to the new construction or tear down/rebuild District permit process, and shall meet the requirements of the most current California Plumbing Code, the most current Uniform Plumbing Code, regulatory requirements, or the following, whichever is more restrictive:

i. Showerheads must be 1.8 gallons per minute (gpm) or less
ii. Toilets must be 1.28 gallons per flush (gpf) or less and shall have a waste extraction score of no fewer than 351 grams, or be high-efficiency (HET)
iii. Dual flush toilets qualify as HET
iv. Kitchen faucets must be 1.8 gpm or less and may have the capability to increase to 2.2 gpm momentarily for filling pots and pans
v. Residential lavatory faucets must be 1.2 gpm or less

b) Residential Units, Apartments, and Condominiums
Residential Remodel or Retrofit

Where a residential structure is subject to the District's remodel permit process, all existing non-compliant fixtures within the residential unit must be replaced with low-flow fixtures, per Section 2.01.9(a). This applies to all non-compliant fixtures within the residential unit, not just the ones initially being replaced, per State law and local building code requirements. Exceptions may be granted, per State law and the local building department.

Per CA Civil Code Section 1101.3 (C) a Non-compliant plumbing fixture is defined as:

i. Any toilet manufactured to use **more** than 1.6 gallons of water per flush
ii. Any urinal manufactured to use **more** than 1.0 gallons of water per flush
iii. Any showerhead manufactured to have a flow capacity of **more** than 2.5 gallons of water per minute
iv. Any interior faucet that emits **more** than 2.2 gallons of water per minute

c) Commercial and Public Structures
New Construction or Complete Reconstruction

Low-flow fixtures are required in all new or completely reconstructed commercial and public structures that are subject to the District permit process, and shall meet the requirements of the most current California Plumbing Code, the most current Uniform Plumbing Code, regulatory requirements, or the following, whichever is more restrictive:

i. Showerheads must be 1.8 gpm or less
ii. Toilets must be 1.28 gpf or less and shall have a waste extraction score of no fewer than 351 grams, or be high-efficiency (HET)
iii. Dual flush toilets qualify as HET
iv. Urinals must be 0.125 gpf or less

v. Kitchen faucets must be 1.8 gpm or less and may have the capability to increase to 2.2 gpm momentarily for filling pots and pans
vi. Residential lavatory faucets must be 1.2 gpm or less
vii. Public restroom lavatory faucets must be 0.5 gpm or less
viii. Metered faucets required for public transient restroom lavatories must be 0.25 gallons per use or less
ix. Pre-rinse sink faucets must be 1.6 gpm or less
x. Spray nozzles must be 1.6 gpm or less

d) Commercial and Public Structure Retrofit

Where a commercial or public structure is subject to the District's remodel permit process, all existing non-compliant fixtures within the unit being remodeled must be replaced with low-flow fixtures, per Section 2.01.9(c). This applies to all non-compliant fixtures within the remodeled unit, not just the ones initially being replaced, per State law and local building code requirements. Exceptions may be granted, per State law and the local building department. Units within a multi-unit commercial structure that are not being remodeled are not subject to retrofit.

Per CA Civil Code Section 1101.3 (C) a Non-compliant plumbing fixture is defined as:

i. Any toilet manufactured to use **more** than 1.6 gallons of water per flush
ii. Any urinal manufactured to use **more** than 1.0 gallons of water per flush
iii. Any showerhead manufactured to have a flow capacity of **more** than 2.5 gallons of water per minute
iv. Any interior faucet that emits **more** than 2.2 gallons of water per minute

2.01.10 Landscape Irrigation

a) Winterization of Irrigation Systems

Operation of irrigation systems shall be discontinued and properly winterized by November 1st every year or earlier depending on temperatures.

b) Landscape Irrigation Controls on New Construction Irrigation Systems

Any new irrigation systems installed within the District, in conjunction with new construction or complete reconstruction, must be equipped with rain sensing devices that will halt irrigation during and after measurable precipitation, and/or moisture sensors that use a probe in the soil to monitor soil water content, and/or freeze sensors that turn off sprinkler valves when the temperature drops below a preset level. These devices must be approved by the District as to number, type, and settings.

c) New Construction and Rehabilitated Landscaping

The installation and planting of landscaping associated with new construction or new or rehabilitated landscaping at existing properties is strongly encouraged to occur in spring or fall. New non-turf landscaping, including bedding plants and trees, shall be on drip, micro sprinkler, or micro sprayer irrigation systems. Overhead watering shall only be allowed for turf areas.

d) State Model Water Efficient Landscape Ordinance

All residential and commercial landscaping associated with new construction or new or rehabilitated landscaping at existing properties shall conform with the requirements of the Model Water Efficient Landscape Ordinance, per California Code of Regulations, Title 23, Division 2, Chapter 2.7 or applicable local ordinances superseding the State

ordinance.

e) Irrigating Turf on Public Medians

Using potable water for irrigating ornamental turf on public street medians, which refers to the area between two portions of a roadway, shall be prohibited. Potable water used to irrigate parkways, which are generally the area between the sidewalk and the street, is NOT prohibited.

2.01.11 Restrictions on Irrigation during Times of Day, Precipitation or Low Temperatures

Landscaping, lawns and open ground must not be watered: (1) between the hours of 9:00 AM and 8:00 PM, (2) at any time while it is raining or snowing and 48-hours after measurable precipitation, and/or (3) where the air temperature is less than 40 degrees Fahrenheit.

2.01.12 Visitor-Serving Facilities

In order to promote public awareness of the need to conserve water and not waste water, the owner and manager of each hotel, motel, restaurant, convention center, and other visitor-serving facility shall display informational material, placards, and/or decals, provided by the District, in places visible to all customers.

2.01.13 Public Entities

In order to promote public awareness of the need to conserve water and not waste water, all public entities shall display informational material, placards, and/or decals, provided by the District, in places visible to all customers.

2.01.14 Indiscriminate Use

Owners shall not use water in a manner that is wasteful and without reasonable purpose.

2.01.15 Exceptions

The provisions of Section 2 of this Ordinance are not applicable to the uses of water which are necessary to protect public health and safety or for essential governmental services, such as police, fire, and other similar emergency services.

2.02 WATER CONSERVATION REQUIREMENTS – MANDATORY COMPLIANCE – DROUGHT RESPONSE STAGE 2 – MODERATE WATER SHORTAGE

In addition to Drought Response Stage 1 requirements, Drought Response Stage 2 requires that overall water consumption be reduced up to 20%. Failure to reduce water consumption by the designated percentage shall be considered a violation, per Section 3 of this Ordinance. The specific percent reduction in overall water consumption, as well as the benchmarks used for comparison, may be designated by regulatory requirements or a Resolution adopted by the District's Board of Directors, and will be defined by the District when implementing Drought Response Stage 2. The District may choose to implement, by Board Resolution, varying water consumption reduction requirements for different Owners, based upon factors such as, but not limited to; historical water usage, type of water usage, time of water usage, or any other relevant factor. The Owner shall meet the most current water conservation measures mandated by other government agencies or, implement TCPUD's measures, whichever is more restrictive. TCPUD's specific mandated restrictions of water use during Drought Response Stage 2 are as follows:

2.02.1 Designated Irrigation Days Established – Three Days per Week

a) Properties with street addresses that end in an even number may irrigate only on Monday, Wednesday, and Friday; properties with street addresses ending in an odd number may irrigate only on Sunday, Tuesday, and Thursday. There will be no irrigation permitted on Saturday. The irrigation day shall be considered to begin at midnight and end at 11:59 pm.

b) Irrigation of non-turf areas which exclusively utilizes drip systems, including micro sprinklers and micro sprayers, or a hose with an automatic shutoff nozzle, shall be exempt from designated irrigation days.

c) Properties with large common areas and public facilities may request alternate irrigation schedules based on specific needs or issues. The District will review such requests on a case-by-case and first-come, first-served basis.

d) The District may establish alternate schedules based upon its determination, and will notify affected Owners of such changes. Designated irrigation days may be modified by the District, if needed.

2.02.2 New or Rehabilitated Landscaping

Notwithstanding any other provision of this Ordinance, water used for irrigating landscaping associated with new construction or new or rehabilitated landscaping at existing properties shall be limited to new or rehabilitated landscaping planted to comply with a Tahoe Regional Planning Agency (TRPA) permit requirement, TRPA Best Management Practice's (BMP) requirement or defensible space. The Owner, or his/her designee, must request permission from the District in writing for the establishment of new vegetation, and may not proceed with work until approval has been received from the District.

a) Newly planted sod may be exempt for thirty (30) days from the date it was installed, and shall require approval from the District in accordance with this Section.

b) Planting and seeding for public erosion control and/or environmental restoration projects shall be exempt from these requirements, and shall require approval from the District.

c) Rehabilitation or installation of new landscaping at properties that had been improved with permitted structures more than six (6) months prior to the rehabilitation or installation of the rehabilitated or new landscaping and which do not meet the requirements of Section 2.02.2, requires written approval from the District prior to the rehabilitation or installation and such approval will not change or alter any other provision or requirement of this Ordinance, including but not limited to water consumption reduction requirements for individual properties, potential violations and enforcement actions.

2.02.3 Irrigation of Public Facilities

Where it is in the interest of public health and safety or where facilities are open to the public, the General Manager may permit extended periods or alternate schedules of irrigation or application of water to public facilities.

2.02.4 Food Service and Drinking Establishments

All food service and drinking establishments shall serve drinking water to their customers only

upon request by the customers. All food service and drinking establishments shall include a placard at each table and/or language on their menu, stating such.

2.02.5 Visitor Accommodations

All visitor accommodations, including, but not limited to, hotels, motels, guest rooms, bed and breakfast establishments, vacation rentals, etc., shall wash guest linens, including towels and sheets, only upon request of their guests, and after guest check out. A placard or notice stating such shall be displayed in each guest room.

2.02.6 Hard Surface Application

The application of water to hard surfaces, including driveways, sidewalks, parking lots, and athletic facilities shall be prohibited, except for pavement resurfacing or sealing, construction services, and/or public health and safety. Any application of water to hard surfaces for these exceptions shall use automatic shutoff nozzles, or require on-site monitoring during manual irrigation.

2.02.7 Ornamental or Decorative Water Features

The use of water in ornamental or decorative water features, including fountains, waterfalls, ponds, or lakes, that do not recirculate the water is prohibited. An ornamental or decorative water feature is defined as a design element where artificially supplied open water performs solely an aesthetic function. Ornamental water features do not include recreational water features, such as swimming pools and spas.

2.02.8 Regulatory Requirements

Other restrictions may apply as mandated by regulatory requirements and may supersede any section of this Ordinance.

2.03 WATER CONSERVATION REQUIREMENTS – MANDATORY COMPLIANCE – DROUGHT RESPONSE STAGE 3 – SIGNIFICANT WATER SHORTAGE

In addition to Drought Response Stages 1 and 2 requirements, Drought Response Stage 3 requires that overall water consumption be reduced by 20% to 30%. Failure to reduce water consumption by the designated percentage shall be considered a violation, per Section 3 of this Ordinance. The specific percent reduction in overall water consumption, as well as the benchmarks used for comparison, may be designated by regulatory requirements or a Resolution adopted by the District's Board of Directors, and will be defined by the District when implementing Drought Response Stage 3. The District may choose to implement, by Board Resolution, varying water consumption reduction requirements for different Owners, based upon factors such as, but not limited to; historical water usage, type of water usage, time of water usage, or any other relevant factor. The Owner shall meet the most current water conservation measures mandated by other government agencies or, implement TCPUD's measures, whichever is more restrictive. TCPUD's specific mandated restrictions of water use during Drought Response Stage 3 are as follows:

2.03.1 Regulatory Requirements

Other restrictions may apply as mandated by regulatory requirements and may supersede any section of this Ordinance.

2.04 WATER CONSERVATION REQUIREMENTS – MANDATORY COMPLIANCE – DROUGHT RESPONSE STAGE 4 – SEVERE WATER SHORTAGE

A Stage 4 drought response is triggered by deterioration in local water service area indicators in conjunction with a drought status above normal for the Lake Tahoe Basin, a failure of key water

service area components, regulatory requirements, and/or a failure to significantly reduce water demand in Drought Response Stages 2 and 3.

During Drought Response Stage 4, Drought Response Stages 1, 2, and 3 restrictions apply. Furthermore, Drought Response Stage 4 requires that overall water consumption be reduced by 30% to 40%. Failure to reduce water consumption by the designated percentage shall be considered a violation, per Section 3 of this Ordinance. The specific percent reduction in overall water consumption, as well as the benchmarks used for comparison, may be designated by regulatory requirements or a Resolution adopted by the District's Board of Directors, and will be defined by the District when implementing Drought Response Stage 4. The District may choose to implement, by Board Resolution, varying water consumption reduction requirements for different Owners, based upon factors such as, but not limited to; historical water usage, type of water usage, time of water usage, or any other relevant factor. The Board may designate specific areas for further restrictions including, but not limited to, the following specific mandated restrictions in water use during Drought Response Stage 4. The Owner shall meet the most current water conservation measures mandated by other government agencies or, implement TCPUD's measures, whichever is more restrictive. TCPUD's specific mandated restrictions of water use during Drought Response Stage 4 are as follows:

2.04.1 Designated Irrigation Days Established – Two Days per Week

a) Properties with street addresses that end in an even number may irrigate only on Monday and Thursday; properties with street addresses ending in an odd number may irrigate only on Tuesday and Friday. There will be no irrigation permitted on Wednesday, Saturday, or Sunday. The irrigation day shall be considered to begin at midnight and end at 11:59 pm.

b) Irrigation of non-turf areas which exclusively utilizes drip systems, including micro sprinklers and micro sprayers will be allowed only Monday through Friday and shall be prohibited on Saturdays and Sundays.

c) Properties with large common areas and public facilities may request alternate irrigation schedules based on specific needs or issues. The District will review such requests on a case-by-case and first-come, first-served basis.

d) The District may establish alternate schedules based upon its determination, and will notify affected Owners of such changes. Designated irrigation days may be modified by the District, if needed.

2.04.2 New or Rehabilitated Landscaping

Notwithstanding any other provision of this Ordinance, water used for irrigating landscaping associated with new construction or new or rehabilitated landscaping at previously improved properties shall be limited to new or rehabilitated landscaping planted to comply with a Tahoe Regional Planning Agency (TRPA) permit requirement, TRPA Best Management Practice's (BMP) requirement or defensible space. The Owner, or his/her designee, must request permission from the District in writing for the establishment of new vegetation, and may not proceed with work until written approval has been received from the District.

a) No new sod or lawns shall be allowed to be installed during summer months (June, July, and August), or when daytime temperatures exceed 80 degrees Fahrenheit.

2.04.3 Snow Making Water

Limitations on snow making water may be imposed by the District, depending on time of year, weather, and/or availability of water.

2.04.4 Regulatory Requirements

Other restrictions may apply as mandated by regulatory requirements and may supersede any section of this Ordinance.

2.05 WATER CONSERVATION REQUIREMENTS – MANDATORY COMPLIANCE – DROUGHT RESPONSE STAGE 5 – CRITICAL WATER SHORTAGE

A Stage 5 drought response is triggered by deterioration in local water service area indicators in conjunction with a drought status above normal for the Lake Tahoe Basin, a failure of key water service area components, regulatory requirements, and/or a failure to significantly reduce water demand in Drought Response Stages 2, 3, and 4.

During Drought Response Stage 5, Drought Response Stages 1, 2, 3, and 4 restrictions apply. Furthermore, Drought Response Stage 5 requires that overall water consumption be reduced by 40% to 50%. Failure to reduce water consumption by the designated percentage shall be considered a violation, per Section 3 of this Ordinance. The specific percent reduction in overall water consumption, as well as the benchmarks used for comparison, may be designated by regulatory requirements or a Resolution adopted by the District's Board of Directors, and will be defined by the District when implementing Drought Response Stage 5. The District may choose to implement, by Board Resolution, varying water consumption reduction requirements for different Owners, based upon factors such as, but not limited to; historical water usage, type of water usage, time of water usage, or any other relevant factor. The Board may designate specific areas for further restrictions including, but not limited to, the following specific mandated restrictions in water use during Drought Response Stage 5. The Owner shall meet the most current water conservation measures mandated by other government agencies or, implement TCPUD's measures, whichever is more restrictive. TCPUD's specific mandated restrictions of water use during Drought Response Stage 5 are as follows:

2.05.1 Regulatory Requirements

Other restrictions may apply as mandated by regulatory requirements and may supersede any section of this Ordinance.

2.06 WATER CONSERVATION REQUIREMENTS – MANDATORY COMPLIANCE – DROUGHT RESPONSE STAGE 6 – WATER SHORTAGE EMERGENCY

A Stage 6 drought response is triggered by deterioration in local water service area indicators in conjunction with a drought status above normal for the Lake Tahoe Basin, a failure of key water service area components, regulatory requirements, a failure to significantly reduce water demand in Drought Response Stages 2, 3, 4 and 5, and/or major catastrophe or contamination of the water supply, including flooding, major fire emergencies, earthquakes, regional power outages, water contamination, and emergencies other than water shortage.

During Drought Response Stage 6, Drought Response Stages 1, 2, 3, 4, and 5 restrictions apply. Furthermore, Drought Response Stage 6 requires that overall water consumption be reduced by 50% or more. Failure to reduce water consumption by the designated percentage shall be considered a violation, per Section 3 of this Ordinance. The specific percent reduction in overall water consumption, as well as the benchmarks used for comparison, may be designated by

regulatory requirements or a Resolution adopted by the District's Board of Directors, and will be defined by the District when implementing Drought Response Stage 6. The District may choose to implement, by Board Resolution, varying water consumption reduction requirements for different Owners, based upon factors such as, but not limited to; historical water usage, type of water usage, time of water usage, or any other relevant factor. The Board may designate specific areas for further restrictions including, but not limited to, the following specific mandated restrictions in water use during Drought Response Stage 6. The Owner shall meet the most current water conservation measures mandated by other government agencies or, implement TCPUD's measures, whichever is more restrictive. TCPUD's specific mandated restrictions of water use during Drought Response Stage 6 are as follows:

2.06.1 Prohibition of Water Use Except for Domestic and Commercial Non-Irrigation Use

The use of water for other than domestic and commercial non-irrigation use is prohibited, except that irrigation of public facilities may be permitted pursuant to review and approval by the District. Irrigation of ornamental landscapes, turf, and new construction landscaping is expressly prohibited. The application of water to hard surfaces and for decorative water features is also prohibited.

2.06.2 Mandatory Water Rationing

The District may implement mandatory water rationing through the use of rolling outages, or other methods, should the situation require. Affected customers will be notified via public outreach, local media, written notice posted at the property, mail, and/or personal contact.

2.06.3 Regulatory Requirements

Other restrictions may apply as mandated by regulatory requirements and may supersede any section of this Ordinance.

– END OF SECTION –

Section 3
Violations

3.01 NOTICE OF VIOLATION

The District may find out that a property is in violation of this Ordinance in a number of ways, including, but not limited to, District monitoring, customer contact, or a complaint. If any person fails or refuses to comply with the provisions of this Ordinance, the General Manager or his/her designee shall provide the Owner with a written notice of the violation and an opportunity to correct the non-compliance. The written notice will:

- **a)** Be posted or presented at the site of the noncompliance, or be mailed to the Owner
- **b)** State the time, date and place of the violation
- **c)** Provide a general description of the violation
- **d)** State the means to correct the violation
- **e)** State a date by which correction is required
    - i. The date specified shall be commensurate with the severity of the situation
- **f)** State the possible consequences of failing to correct the violation

The District shall also make every reasonable attempt to establish personal contact with the Owner via phone, email, and/or in person, if such contact information is readily available or on file with the District.

3.02 CORRECTIVE ACTIONS

If the violation is not corrected to the District's satisfaction within the time limit specified or if conditions are severe enough or warrant immediate action, the District may restrict the water service to the property, correct the violation, or disconnect the water service in accordance with District procedures. In addition to restricting the water service, correcting the violation, or disconnecting the water service, the Owner may be billed administrative fees, as well as any applicable time and maintenance charges on his/her account, in accordance with the District's fee schedule.

If the water service is disconnected, reconnection shall only be permitted when there is reasonable protection against future violations, as determined by the District. Costs associated with disconnection and reconnection will be billed to the Owner.

3.03 PROCEDURES

3.03.1 First Violation

Following adoption of this Ordinance, first violations of any provision within this Ordinance will result in a friendly reminder in the form of a notice posted on or near the front door, personal contact with the Owner and/or a letter advising the Owner of the violation, in accordance with Section 3.01. If not corrected within the time limit specified in the District's notice to the Owner, the District may elect to take corrective actions per Section 3.02, and/or impose the conditions associated with a Second Violation, as outlined in Section 3.03.2, based upon severity of the violation.

3.03.2 Second Violation

For a second violation of any provision within this Ordinance within one calendar year, whether it is the same provision previously violated or a new provision, the Owner will be notified in writing in the form of a notice posted on or near the front door, personal contact with the Owner, and/or a letter advising the Owner of the violation, in accordance with Section 3.01. If the correction is not

made within the time limit specified in the District's notice to the Owner, based upon severity of the violation, a penalty, in the amount as set forth in a Resolution adopted by the District's Board of Directors establishing penalties for violating this Ordinance, as well as any applicable time and maintenance charges, may be assessed in accordance with the District fee schedule. These costs shall be added to the Owner's water service charges at the property where the violation occurred. If not corrected within the time limit specified in the District's notice to the Owner, the District may elect to take corrective actions per Section 3.02, and/or impose the conditions associated with a Third Violation, as outlined in Section 3.03.3, based upon severity of the violation.

3.03.3 Third Violation

For a third violation of any provision within this Ordinance within one calendar year, whether it is the same provision previously violated or a new provision, the Owner will be notified in writing in the form of a notice posted on or near the front door, personal contact with the Owner, and/or a letter advising the Owner of the violation, in accordance with Section 3.01. If the correction is not made within the time limit specified in the District's notice to the Owner, a penalty, in the amount as set forth in a Resolution adopted by the District's Board of Directors establishing penalties for violating this Ordinance, as well as any applicable time and maintenance charges, will be assessed in accordance with the District's fee schedule. These costs will be added to the Owner's water service charges at the property where the violation occurred. If not corrected within the time limit specified in the District's notice to the Owner, the District may elect to take corrective actions per Section 3.02, and/or impose the conditions associated with a Fourth Violation, as outlined in Section 3.03.4, based upon severity of the violation.

3.03.4 Fourth Violation

For the fourth and any subsequent violations of any provision within this Ordinance within one calendar year, whether it is the same provision previously violated or a new provision, the Owner will be notified in writing in the form of a notice posted on or near the front door, personal contact with the Owner, and/or a letter advising the Owner of the violation, in accordance with Section 3.01. If the correction is not made within the time limit specified in the District's notice to the Owner, a penalty, in the amount as set forth in a Resolution adopted by the District's Board of Directors establishing penalties for violating this Ordinance, as well as any applicable time and maintenance charges, will be assessed in accordance with the District's fee schedule. These costs will be added to the Owners' water service charges at the property where the violation occurred. If not corrected within the time limit specified, the District may take corrective actions per Section 3.02, based upon severity of the violation, up to and including disconnection of the water service at the property where the violation occurred.

3.04 CORRECTION AND ENFORCEMENT COSTS

The District may correct any violation of this Ordinance and bill the Owner for costs and expenses in correcting violation(s) and/or enforcing the provisions of this Ordinance, including staff time for investigation, correction of violation(s), and/or monitoring for compliance, if the Owner refuses to comply. The Owner may also be assessed a penalty(ies), as determined by the level of violation and/or regulatory requirements.

Charges shall be added to the Owner's bill for the property where the correction and/or enforcement costs were incurred. The District may also take such action as may be allowed by statute, local or State regulatory requirements.

3.05 TERMINATION OF SERVICE

Failure to correct the violation may result in termination of water service to the parcel on which the violation occurred. Reconnection shall only be permitted when there is reasonable protection against future violations, as determined by the District.

– END OF SECTION –

Section 4
Rebate and Conservation Programs

4.01 REBATE PROGRAM ESTABLISHED

A rebate and conservation program may be established to encourage Owners to implement water efficiency measures at their property. Programs may include, but are not limited to, water use surveys, high efficiency toilet replacements, high efficiency appliance replacements, and efficient irrigation control systems programs.

To be eligible to participate in any rebate or conservation program, District customers shall be in full compliance with all District Ordinances and current on their utility account. To be eligible to receive rebates, any outstanding issues on the property must be resolved for District water and sewer customers.

Any device, process or program associated with a rebate given by the District, shall remain in place for a minimum of 5 years, unless that device, process, or program is replaced with a more efficient or equal measure.

Rebates and programs are given only if funding is still available and on a first-come, first-served basis. Applications submitted after funding is exhausted will be processed in the following calendar year in the order received. The individual rebate programs or the water audit program may be suspended, discontinued, expanded, or modified at any time, at the discretion of the General Manager.

– END OF SECTION –

Section 5
Effective Date of Ordinance, and Revocation of Prior Water Ordinances Inconsistent Herewith

This Ordinance shall become effective thirty (30) days from date of adoption.

Existing fees and charges in effect when this Ordinance is adopted shall remain in effect unless specifically changed by this Ordinance.

District Ordinance 291 is hereby revoked in its entirety and to the extent that any other of the existing and prior ordinances of the District applicable to its water service areas are inconsistent herewith, all such prior ordinances shall be deemed revoked upon this Ordinance becoming effective to the extent that they are inconsistent.

That the Clerk of this District is hereby authorized and directed to cause this Ordinance to be duly published and posted as required by law.

PASSED AND ADOPTED THIS 18th day of February, 2022 at a Regular meeting of the Board of Directors of Tahoe City Public Utility District by the following vote:

AYES: Scoville, Friedman, Beals, Wilkins, Pang
NOES: None
ABSENT: None

Tahoe City Public Utility District

By: John Pang, Board President

ATTEST: Terri Viehmann, District Clerk

– END OF SECTION –

Appendix I

WATER AND SEWER RATE SCHEDULES

RESOLUTION NO. 21-44
TAHOE CITY PUBLIC UTILITY DISTRICT
ESTABLISHING 2022 WATER BASE AND TIERED CONSUMPTION RATES AT THE APPROVED PROPOSITION 218 RATES FOR 2022

WHEREAS, Tahoe City Public Utility District ("District") was formed pursuant to the California Public Utility District Act and provides potable water and sewer collection service to lands within the District; and

WHEREAS, the Board of Directors of Tahoe City Public Utility District ("the Board") has authority to establish fees and charges for the provision of water to District customers; and

WHEREAS, the Board retained HDR Engineering, Inc. ("HDR") to perform a water and sewer rate study, which was completed by HDR in August 2019 ("2019 HDR Rate Study") and which examined the adequacy of the existing water and sewer rates and provided the basis for adjustments to rates to adequately and equitably fund the operating and capital needs of the water and sewer systems; and

WHEREAS, the main objectives of the 2019 HDR Rate Study were to develop a projection of water and sewer revenues to support the District's operating and capital costs, proportionally allocate the costs of providing water and sewer service to those customers receiving service, and propose cost-based and equitable rates for a multi-year period; and

WHEREAS, the District prepared a 5-year water capital improvement plan, which was updated from the previous water capital improvement plan; and

WHEREAS, based on the 2019 HDR Rate Study, the Board developed proposed maximum water rates for years 2020, 2021, 2022, 2023, and 2024; and

WHEREAS, on October 18, 2019, the Board passed and adopted Ordinance No. 299 which, among other things, amended and modified Ordinance No. 263 and established maximum water rates for years 2020, 2021, 2022, 2023, and 2024; and

WHEREAS, Ordinance No. 299 provides that annually the Board will review the operating expenses of, the capital costs of, and the revenues from the water utility received as compared to the projections used in the 2019 HDR Rate Study. The Board will then determine if the water rates for the coming year should be modified based on revised conditions in order to maintain continuity with the Rate Study. The Board may reduce the water rates in any given year and cannot exceed the cumulative water rates presented for any specific year to the ratepayers through the Proposition 218 process; and

WHEREAS, on November 22, 2019, the Board passed and adopted Ordinance No. 301 amending and modifying Ordinance No. 299, and Ordinance No. 301 provides that the Board may revise and establish water rates by resolution; and

WHEREAS, the Board desires to establish water rates beginning in the year 2022; and

WHEREAS, this Resolution No. 21-44 shall become effective upon its passage and adoption.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the TCPUD, as follows:

1) That the above recitations are true and correct.
2) The water rates set forth on Exhibit "A" are approved and shall be implemented beginning on January 1, 2022.
3) This Resolution No 21-44 shall become effective upon its passage and adoption.

PASSED AND ADOPTED on the 19th day of November 2021, by the following vote:

AYES:

NOES:

ABSENT:

TAHOE CITY PUBLIC UTILITY DISTRICT

_____

Gail Scoville, President

ATTEST:

_____

Terri Viehmann, District Clerk

Tahoe City Public Utility District
Water Services Charges
Effective January 1, 2022
Resolution 21-44 Establishing 2022 Water Rates - Exhibit A

Residential CONSUMPTION Rate Schedule Per 1,000Gallons				
Rate Code Monthly	Monthly Water Consumption Charges Per 1,000 Gallons *(Add to Water Base Rate Below)*		HDR Rate Study Adopted October 18, 2019 2022	Board Adopted Full Proposition 218 Rates 2022
Added to applicable base rate	Tier 1 0 - 8,000 gallons		$3.28	$3.28
	Tier 2 8,001 - 20,000		$4.28	$4.28
	Tier 3 20,001 - 40,000		$6.17	$6.17
	Tier 4 40,001 and above		$12.20	$12.20

Commercial CONSUMPTION Rate Schedule				
Rate Code Monthly	Monthly Water Consumption Charges Per 1,000 Gallons *(Add to Water Base Rate Below)*		HDR Rate Study Adopted October 18, 2019 2022	Board Adopted Full Proposition 218 Rates 2022
Added to applicable base rate	All Usage		$4.63	$4.63
	Temporary Water Usage Charge (Hydrant meter)		$4.63	$4.63

Residential and Commercial Water BASE Rate Schedule (To determine water bill select the water base rate that applies to you + consumption from above)				
Rate Code Monthly	Standard base rate by meter size	Water Connection Fee	HDR Rate Study Adopted October 18, 2019 2022	Board Adopted Full Proposition 218 Rates 2022
150	3/4"	$2,500	$87.43	$87.43
151	1"	$3,000	$146.01	$146.01
152	1 1/4"	$4,500	$218.58	$218.58
153	1 1/2"	$6,000	$291.14	$291.14
154	2"	$9,600	$466.00	$466.00
155	3"	$21,000	$874.30	$874.30
156	4"	As determined	$1,457.46	$1,457.46
157	6"	As determined	$2,914.04	$2,914.04
TBD	8"	As determined	$4,662.64	$4,662.64
TBD	Unmetered Rate (base rate + (annualized consumption of 6,000 gallons x consumption rate/1,000)		$107.11	$107.11

	OR		HDR Rate Study Adopted October 18, 2019	Board Adopted Full Proposition 218 Rates
	Combined Fire Service (CFS)		Maximum Monthly Water Charges *plus consumption*	
Rate Code Monthly	base rate by meter size	Water Connection Fee	2022	2022
TBD	CFS - 3/4"	$2,500 + $1,200	$122.84	$122.84
TBD	CFS - 1"	$2,500 + $1,200	$134.64	$134.64
TBD	CFS - 1 1/2"	$3,000 + $1,200	$229.94	$229.94
TBD	CFS - 2"	$3,000 + $1,200	$257.92	$257.92
TBD	CFS > 2"	As determined		

Private Fire Protection and / or Private Fire Hydrant BASE Rate Schedule (Only applies to customers with an approved private fire protection service or a private fire hydrant) (If applicable, add to standard base rate)				
			HDR Rate Study Adopted October 18, 2019	Board Adopted Full Proposition 218 Rates
			Maximum Monthly Water Charges *plus consumption*	
Rate Code Monthly		Water Connection Fee	2022	2022
TBD	Private Fire Protection [1] (per inch diameter)	$1,200	$47.21	$47.21
TBD	Private Fire Hydrant (per inch diameter)	$1,200	$47.21	$47.21

[1] Add to Standard Base Rate where fire protection service provided by separate service line. Not to be added to Combined Fire Service Base Rate.

RESOLUTION NO. 21-43
TAHOE CITY PUBLIC UTILITY DISTRICT
ESTABLISHING 2022 WATER BASE AND TIERED CONSUMPTION RATES FOR TAHOE CEDARS AND MADDEN CREEK WATER SERVICE AREA CUSTOMERS

WHEREAS, on October 18, 2019, the Board of Directors ("the Board") adopted the Comprehensive Water and Sewer Rate Study performed by HDR Engineering, Inc. ("HDR") dated August 2019 ("2019 HDR Rate Study"), which developed a single transition water rate schedule for Tahoe Cedars and Madden Creek water service area customers and which transitions rates annually such that Tahoe Cedars and Madden Creek rates achieve the 2024 approved Proposition 218 rates in 2024; and

WHEREAS, in accordance with District Financial Policy No. 2025, Water System Acquisition Policy, the Board may utilize its property tax revenues for a rate transition plan to offset the difference in water rate revenue between the Tahoe Cedars and Madden Creek water customers and the remainder of the District water customers; and

WHEREAS, during the 2019 HDR Rate Study process, the Board determined that the water rate transition schedule for Tahoe Cedars and Madden Creek water service area customers would apply to those customers as of the effective date of Ordinance No. 299 and that the rates established in Ordinance No. 299, as they may be amended by resolution in accordance with Ordinance No. 301, that apply to customers outside of the Tahoe Cedars and Madden Creek water service areas will apply to all customers receiving water service at parcels that have changed ownership through a sale of the parcel on or after January 1, 2020; and

WHEREAS, the term "customers", as used in this Resolution is defined per Ordinance No. 263 as the legal owner of a property or premises receiving water service from the District, or the owner of a private water system being supplied water from the District; and

WHEREAS, any new water connection on or after January 1, 2019, regardless of service area, shall be subject to the rates established in Ordinance No. 299, as they may be amended by resolution in accordance with Ordinance No. 301; and

WHEREAS, on October 18, 2019, the Board passed and adopted Ordinance No. 299 which, among other things, amended and modified Ordinance No. 263 and established maximum water rates for years 2020, 2021, 2022, 2023, and 2024; and

WHEREAS, on November 22, 2019, the Board passed and adopted Ordinance No. 301 amending and modifying Ordinance No. 299, and Ordinance No. 301 provides that the Board may revise and establish water rates by resolution; and

WHEREAS, the Board desires to establish water rates for Tahoe Cedars and Madden Creek water service area customers for the year 2022; and

WHEREAS, this Resolution No. 21-43 shall become effective upon its passage and adoption.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the TCPUD, as follows:

1) That the above recitations are true and correct.
2) The water rates set forth on Exhibit "A" are approved and shall be implemented beginning on January 1, 2022, for Tahoe Cedars and Madden Creek water service area customers who have owned the property where water service is received before January 1, 2020.
3) The water rates established by Ordinance No. 299, as they may be revised and established by resolution, that apply to customers outside of the Tahoe Cedars and Madden Creek water service areas are approved and shall be implemented beginning on January 1, 2022, for Tahoe Cedars and Madden Creek water service area customers who have owned the property where water service is received on or after January 1, 2022 and for any new water connection, regardless of service area, on or after January 1, 2020.
4) This Resolution No 21-43 shall become effective upon its passage and adoption.

PASSED AND ADOPTED on the 19th day of November 2021, by the following vote:

AYES:

NOES:

ABSENT:

TAHOE CITY PUBLIC UTILITY DISTRICT

_____

Gail Scoville, President

ATTEST:

_____

Terri Viehmann, District Clerk

Tahoe City Public Utility District
Tahoe Cedars / Madden Creek Monthly Single Water Rate Transition Schedule
Effective January 1, 2022
Resolution 21-43 Establishing Water Base Rates and Tiered Consumption For Tahoe Cedars and Madden Creek Service Area Customers - Exhibit A

Tahoe Cedars and Madden Creek Residential CONSUMPTION Rate Schedule Per 1,000Gallons			
Rate Code Monthly	Monthly Water Consumption Charges Per 1,000 Gallons *(Add to Water Base Rate Below)*	Transition Rates per HDR 2019 Rate Study 2022	Board Adopted Transition Rates 2022
Add to applicable base rate	Tier 1 0 - 8,000 gallons	$2.64	$2.64
	Tier 2 8,001 - 20,000	$3.44	$3.44
	Tier 3 20,001 - 40,000	$4.96	$4.96
	Tier 4 40,001 and above	$9.81	$9.81

Tahoe Cedars and Madden Creek Commercial CONSUMPTION Rate Schedule			
Rate Code Monthly	Monthly Water Consumption Charges Per 1,000 Gallons *(Add to Water Base Rate Below)*	Transition Rates per HDR 2019 Rate Study 2022	Board Adopted Transition Rates 2022
Add to applicable base rate	All Usage	$3.72	$3.72

Tahoe Cedars and Madden Creek Residential and Commercial Water BASE Rate Schedule (To determine water bill select the water base rate that applies to you + consumption from above)			
Rate Code Monthly	Standard base rate by meter size	Transition Rates per HDR 2019 Rate Study 2022	Board Adopted Transition Rates 2022
	Unmetered Rate		
300/400	Year Round SFR	$86.13	$86.13
	Base Charge		
304/403	3/4"	$70.30	$70.30
305/404	1"	$117.41	$117.41
TBD	1 1/4"	$175.76	$175.76
TBD	1 1/2"	$234.11	$234.11
306/406	2"	$374.71	$374.71
TBD	3"	$703.02	$703.02
307/407	4"	$1,171.94	$1,171.94
TBD	6"	$2,343.18	$2,343.18
TBD	8"	$3,749.23	$3,749.23

	OR	Transition Rates per HDR 2019 Rate Study	Board Adopted Transition Rates
	Combined Fire Service (CFS)	Maximum Monthly Water Charges *plus consumption*	
Rate Code Monthly	base rate by meter size	2022	2022
TBD	CFS - 3/4"	$98.78	$98.78
TBD	CFS - 1"	$108.26	$108.26
TBD	CFS - 1 1/2"	$184.89	$184.89
TBD	CFS - 2"	$207.39	$207.39
TBD	CFS > 2"	Service Classification Size Determined by District	

RESOLUTION NO. 21-45
TAHOE CITY PUBLIC UTILITY DISTRICT
ESTABLISHING 2022 SEWER RATES AT THE APPROVED PROPOSITION 218 RATES FOR 2022

WHEREAS, Tahoe City Public Utility District ("District") was formed pursuant to the California Public Utility District Act and provides potable water and sewer collection service to lands within the District; and

WHEREAS, the Board of Directors of Tahoe City Public Utility District ("the Board") has authority to establish fees and charges for the provision of sewer services to District customers; and

WHEREAS, the Board retained HDR Engineering, Inc. ("HDR") to perform a water and sewer rate study, which was completed by HDR in August 2019 ("2019 HDR Rate Study") and which examined the adequacy of the existing water and sewer rates and provided the basis for adjustments to rates to adequately and equitably fund the operating and capital needs of the water and sewer system; and

WHEREAS, the main objectives of the 2019 HDR Rate Study were to develop a projection of water and sewer revenues to support the District's operating and capital costs, proportionally allocate the costs of providing water and sewer service to those customers receiving service, and propose cost-based and equitable rates for a multi-year period; and,

WHEREAS, the District prepared a 5-year sewer capital improvement plan, which was updated from the previous sewer capital improvement plan; and

WHEREAS, based on the 2019 HDR Rate Study, the Board developed proposed maximum sewer rates for years 2020, 2021, 2022, 2023, and 2024; and

WHEREAS, Ordinance No. 300 provides that annually, the Board will review the operating expenses of, the capital costs of, and the revenues from the sewer utility received as compared to the projections used in the 2019 HDR Rate Study. The Board will then determine if the sewer rates for the coming year should be modified based on revised conditions in order to maintain continuity with the Rate Study. The Board may reduce the sewer rates in any given year and cannot exceed the cumulative sewer rates presented for any specific year to the ratepayers through the Proposition 218 process; and

WHEREAS, on November 22, 2019, the Board passed and adopted Ordinance No. 302 amending and modifying Ordinance No. 300, and Ordinance No. 302 provides that the Board may revise and establish sewer rates by resolution; and

WHEREAS, the Board desires to establish sewer rates beginning in the year 2022 and

WHEREAS, this Resolution No. 21-45 shall become effective upon its passage and adoption.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the TCPUD, as follows:

1) That the above recitations are true and correct.
2) The sewer rates set forth on Exhibit "A" are approved and shall be implemented beginning on January 1, 2022.
3) This Resolution No. 21-45 shall become effective upon its passage and adoption.

PASSED AND ADOPTED on the 19th day of November 2021, by the following vote:

AYES:
NOES:
ABSENT:

TAHOE CITY PUBLIC UTILITY DISTRICT

_____
Gail Scoville, President

ATTEST:

_____
Terri Viehmann, District Clerk

Tahoe City Public Utility District
Sewer Services Charges
Effective January 1, 2022
Resolution 21-45 Establishing 2022 Sewer Rates - Exhibit A

	HDR Rate Study Adopted October 18, 2019	Board Adopted Full Proposition 218 Rates
Residential Monthly Sewer Charge	2022	2022
Residential	$51.83	$51.83
Commercial Monthly Sewer Charge		
Motel W/O Kitchen	$21.39	$21.39
Motel W/Kitchen	$22.80	$22.80
Seating - Per 1/2 Seat	$1.46	$1.46
Seating - Per Seat	$2.93	$2.93
Laundry - Per Machine	$10.70	$10.70
Hotel W/Kitchen	$21.39	$21.39
Hotel W/O Kitchen	$13.49	$13.49
Campsite W/Sewer	$26.51	$26.51
Campsite W/O Sewer	$22.80	$22.80
Snackbar	$79.01	$79.01
Service Station	$79.01	$79.01
Beauty / Barber Shop (Per Chair)	$28.49	$28.49
Theatre	$157.95	$157.95
Boat Pump	$79.01	$79.01
Standby Sewer Service	$10.35	$10.35
Food Service Estab Lic	$35.01	$35.01
Backwash (Pool/Spa Filters)	$26.51	$26.51
Unclassified Sewer	$52.58	$52.58
Unclassified Sewer W/O Kitchen	$21.39	$21.39
.5 Sewer Unit (1-10 Fixtures)	$26.51	$26.51
1.0 Sewer Unit (11-20 Fixtures)	$52.58	$52.58
Comm'Cl Non-Rest < 1,000 Sq Ft	$52.58	$52.58
Comm'Cl Non-Rest > 1,000 Sq Ft	$26.51	$26.51
Pro-Rated Sewer Charge	$1.44	$1.44

Without TCPUD Water Billing multiply monthly base rate by 3 for quarterly billing.

Appendix J

UWMP CHECKLIST

UWMP Checklist

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Chapter 1	10615	A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities.	Introduction and Overview	Section 1.1
x	x	Chapter 1	10630.5	Each plan shall include a simple description of the supplier's plan including water availability, future requirements, a strategy for meeting needs, and other pertinent information. Additionally, a supplier may also choose to include a simple description at the beginning of each chapter.	Summary	Section 1.1
x	x	Section 2.2	10620(b)	Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.	Plan Preparation	Section 2.1

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 2.6	10620(d)(2)	Coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	Plan Preparation	Section 2.4
x	x	Section 2.6.2	10642	Provide supporting documentation that the water supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan and contingency plan.	Plan Preparation	Section 2.4
x		Section 2.6, Section 6.1	10631(h)	Retail suppliers will include documentation that they have provided their wholesale supplier(s) - if any - with water use projections from that source.	System Supplies	N/A

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
	x	Section 2.6	10631(h)	Wholesale suppliers will include documentation that they have provided their urban water suppliers with identification and quantification of the existing and planned sources of water available from the wholesale to the urban supplier during various water year types.	System Supplies	N/A
x	x	Section 3.1	10631(a)	Describe the water supplier service area.	System Description	Section 3.1
x	x	Section 3.3	10631(a)	Describe the climate of the service area of the supplier.	System Description	Section 3.2
x	x	Section 3.4	10631(a)	Provide population projections for 2025, 2030, 2035, 2040 and optionally 2045.	System Description	Section 3.3.1
x	x	Section 3.4.2	10631(a)	Describe other social, economic, and demographic factors affecting the supplier's water management planning.	System Description	Section 3.3.2
x	x	Sections 3.4 and 5.4	10631(a)	Indicate the current population of the service area.	System Description and Baselines and Targets	Section 3.3.1
x	x	Section 3.5	10631(a)	Describe the land uses within the service area.	System Description	Section 3.4

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 4.2	10631(d)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System Water Use	Section 4.2
x	x	Section 4.2.4	10631(d)(3)(C)	Retail suppliers shall provide data to show the distribution loss standards were met.	System Water Use	Section 4.3
x	x	Section 4.2.6	10631(d)(4)(A)	In projected water use, include estimates of water savings from adopted codes, plans, and other policies or laws.	System Water Use	Section 4.4
x	x	Section 4.2.6	10631(d)(4)(B)	Provide citations of codes, standards, ordinances, or plans used to make water use projections.	System Water Use	Section 4.2
x	optional	Section 4.3.2.4	10631(d)(3)(A)	Report the distribution system water loss for each of the 5 years preceding the plan update.	System Water Use	Section 4.3
x	optional	Section 4.4	10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the supplier.	System Water Use	Section 4.5
x	x	Section 4.5	10635(b)	Demands under climate change considerations must be included as part of the drought risk assessment.	System Water Use	Section 4.6

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x		Chapter 5	10608.20(e)	Retail suppliers shall provide baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.	Baselines and Targets	Chapter 5 (see SB X7-7 forms in Appendix D)
x		Chapter 5	10608.24(a)	Retail suppliers shall meet their water use target by December 31, 2020.	Baselines and Targets	Section 5.6
	x	Section 5.1	10608.36	Wholesale suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their retail water suppliers achieve targeted water use reductions.	Baselines and Targets	N/A
x		Section 5.2	10608.24(d)(2)	If the retail supplier adjusts its compliance GPCD using weather normalization, economic adjustment, or extraordinary events, it shall provide the basis for, and data supporting the adjustment.	Baselines and Targets	Section 5.6

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x		Section 5.5	10608.22	Retail suppliers' per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use of the 5-year baseline. This does not apply if the suppliers base GPCD is at or below 100.	Baselines and Targets	Section 5.5
x		Section 5.5 and Appendix E	10608.4	Retail suppliers shall report on their compliance in meeting their water use targets. The data shall be reported using a standardized form in the SBX7-7 2020 Compliance Form.	Baselines and Targets	Section 5.6 (See SB X7-7 forms in Appendix D)
x	x	Sections 6.1 and 6.2	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought.	System Supplies	Section 7.4
x	x	Sections 6.1	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought, *including changes in supply due to climate change.*	System Supplies	Section 7.4

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 6.1	10631(b)(2)	When multiple sources of water supply are identified, describe the management of each supply in relationship to other identified supplies.	System Supplies	Chapter 6
x	x	Section 6.1.1	10631(b)(3)	Describe measures taken to acquire and develop planned sources of water.	System Supplies	Chapter 6
x	x	Section 6.2.8	10631(b)	Identify and quantify the existing and planned sources of water available for 2020, 2025, 2030, 2035, 2040 and optionally 2045.	System Supplies	Section 6.9
x	x	Section 6.2	10631(b)	Indicate whether groundwater is an existing or planned source of water available to the supplier.	System Supplies	Section 6.2
x	x	Section 6.2.2	10631(b)(4)(A)	Indicate whether a groundwater sustainability plan or groundwater management plan has been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	System Supplies	Section 6.2
x	x	Section 6.2.2	10631(b)(4)(B)	Describe the groundwater basin.	System Supplies	Section 6.2

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 6.2.2	10631(b)(4)(B)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the supplier has the legal right to pump.	System Supplies	Section 6.2
x	x	Section 6.2.2.1	10631(b)(4)(B)	For unadjudicated basins, indicate whether or not the department has identified the basin as a high or medium priority. Describe efforts by the supplier to coordinate with sustainability or groundwater agencies to achieve sustainable groundwater conditions.	System Supplies	Section 6.2
x	x	Section 6.2.2.4	10631(b)(4)(C)	Provide a detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years	System Supplies	Section 6.2
x	x	Section 6.2.2	10631(b)(4)(D)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System Supplies	Section 6.2
x	x	Section 6.2.7	10631(c)	Describe the opportunities for exchanges or transfers of water on a short-term or long- term basis.	System Supplies	Section 6.7

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 6.2.5	10633(b)	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	System Supplies (Recycled Water)	Section 6.5.3
x	x	Section 6.2.5	10633(c)	Describe the recycled water currently being used in the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.5
x	x	Section 6.2.5	10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System Supplies (Recycled Water)	Section 6.5.5
x	x	Section 6.2.5	10633(e)	Describe the projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected.	System Supplies (Recycled Water)	Section 6.5.5
x	x	Section 6.2.5	10633(f)	Describe the actions which may be taken to encourage the use of recycled water and the projected results of these actions in terms of acre-feet of recycled water used per year.	System Supplies (Recycled Water)	Section 6.5.6

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 6.2.5	10633(g)	Provide a plan for optimizing the use of recycled water in the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.5.1
x	x	Section 6.2.6	10631(g)	Describe desalinated water project opportunities for long-term supply.	System Supplies	Section 6.6
x	x	Section 6.2.5	10633(a)	Describe the wastewater collection and treatment systems in the supplier's service area with quantified amount of collection and treatment and the disposal methods.	System Supplies (Recycled Water)	Section 6.5.2
x	x	Section 6.2.8, Section 6.3.7	10631(f)	Describe the expected future water supply projects and programs that may be undertaken by the water supplier to address water supply reliability in average, single-dry, and for a period of drought lasting 5 consecutive water years.	System Supplies	Section 6.8
x	x	Section 6.4 and Appendix O	10631.2(a)	The UWMP must include energy information, as stated in the code, that a supplier can readily obtain.	System Suppliers, Energy Intensity	Section 6.11

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 7.2	10634	Provide information on the quality of existing sources of water available to the supplier and the manner in which water quality affects water management strategies and supply reliability	Water Supply Reliability Assessment	Section 7.2.1
x	x	Section 7.2.4	10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water Supply Reliability Assessment	Section 7.2.3
x	x	Section 7.3	10635(a)	Service Reliability Assessment: Assess the water supply reliability during normal, dry, and a drought lasting five consecutive water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years.	Water Supply Reliability Assessment	Section 7.4
x	x	Section 7.3	10635(b)	Provide a drought risk assessment as part of information considered in developing the demand management measures and water supply projects.	Water Supply Reliability Assessment	Section 7.5

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 7.3	10635(b)(1)	Include a description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts 5 consecutive years.	Water Supply Reliability Assessment	Section 7.3
x	x	Section 7.3	10635(b)(2)	Include a determination of the reliability of each source of supply under a variety of water shortage conditions.	Water Supply Reliability Assessment	Section 7.4
x	x	Section 7.3	10635(b)(3)	Include a comparison of the total water supply sources available to the water supplier with the total projected water use for the drought period.	Water Supply Reliability Assessment	Section 7.4
x	x	Section 7.3	10635(b)(4)	Include considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.	Water Supply Reliability Assessment	Sections 6.10 and 7.2.2
x	x	Chapter 8	10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	Water Shortage Contingency Planning	See Chapter 8 and Appendix H

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Chapter 8	10632(a)(1)	Provide the analysis of water supply reliability (from Chapter 7 of Guidebook) in the WSCP	Water Shortage Contingency Planning	Section 7.4
x	x	Section 8.10	10632(a)(10)	Describe reevaluation and improvement procedures for monitoring and evaluation the water shortage contingency plan to ensure risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented.	Water Shortage Contingency Planning	Section 8.9
x	x	Section 8.2	10632(a)(2)(A)	Provide the written decision-making process and other methods that the supplier will use each year to determine its water reliability.	Water Shortage Contingency Planning	Section 8.5
x	x	Section 8.2	10632(a)(2)(B)	Provide data and methodology to evaluate the supplier's water reliability for the current year and one dry year pursuant to factors in the code.	Water Shortage Contingency Planning	Section 8.5

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 8.3	10632(a)(3)(A)	Define six standard water shortage levels of 10, 20, 30, 40, 50 percent shortage and greater than 50 percent shortage. These levels shall be based on supply conditions, including percent reductions in supply, changes in groundwater levels, changes in surface elevation, or other conditions. The shortage levels shall also apply to a catastrophic interruption of supply.	Water Shortage Contingency Planning	See Section 8.2 and Appendix H
x	x	Section 8.3	10632(a)(3)(B)	Suppliers with an existing water shortage contingency plan that uses different water shortage levels must cross reference their categories with the six standard categories.	Water Shortage Contingency Planning	N/A
x	x	Section 8.4	10632(a)(4)(A)	Suppliers with water shortage contingency plans that align with the defined shortage levels must specify locally appropriate supply augmentation actions.	Water Shortage Contingency Planning	Section 8.4
x	x	Section 8.4	10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	Water Shortage Contingency Planning	Section 8.3

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 8.4	10632(a)(4)(C)	Specify locally appropriate operational changes.	Water Shortage Contingency Planning	Section 8.9
x	x	Section 8.4	10632(a)(4)(D)	Specify additional mandatory prohibitions against specific water use practices that are in addition to state-mandated prohibitions are appropriate to local conditions.	Water Shortage Contingency Planning	Section 8.3
x	x	Section 8.4	10632(a)(4)(E)	Estimate the extent to which the gap between supplies and demand will be reduced by implementation of the action.	Water Shortage Contingency Planning	Section 8.3
x	x	Section 8.4.6	10632.5	The plan shall include a seismic risk assessment and mitigation plan.	Water Shortage Contingency Plan	Section 8.7
x	x	Section 8.5	10632(a)(5)(A)	Suppliers must describe that they will inform customers, the public and others regarding any current or predicted water shortages.	Water Shortage Contingency Planning	See Appendix H
x	x	Section 8.5 and 8.6	10632(a)(5)(B) 10632(a)(5)(C)	Suppliers must describe that they will inform customers, the public and others regarding any shortage response actions triggered or anticipated to be triggered and other relevant communications.	Water Shortage Contingency Planning	See Appendix H

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x		Section 8.6	10632(a)(6)	Retail supplier must describe how it will ensure compliance with and enforce provisions of the WSCP.	Water Shortage Contingency Planning	See Appendix H
x	x	Section 8.7	10632(a)(7)(A)	Describe the legal authority that empowers the supplier to enforce shortage response actions.	Water Shortage Contingency Planning	See Appendix H
x	x	Section 8.7	10632(a)(7)(B)	Provide a statement that the supplier will declare a water shortage emergency Water Code Chapter 3.	Water Shortage Contingency Planning	See Appendix H
x	x	Section 8.7	10632(a)(7)(C)	Provide a statement that the supplier will coordinate with any city or county within which it provides water for the possible proclamation of a local emergency.	Water Shortage Contingency Planning	See Appendix H
x	x	Section 8.8	10632(a)(8)(A)	Describe the potential revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	Section 8.8
x	x	Section 8.8	10632(a)(8)(B)	Provide a description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	Section 8.8

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x		Section 8.8	10632(a)(8)(C)	Retail suppliers must describe the cost of compliance with Water Code Chapter 3.3: Excessive Residential Water Use During Drought	Water Shortage Contingency Planning	Section 8.8
x		Section 8.9	10632(a)(9)	Retail suppliers must describe the monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance.	Water Shortage Contingency Planning	Section 8.9
x		Section 8.11	10632(b)	Analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.	Water Shortage Contingency Planning	See Appendix H
x	x	Sections 8.12 and 10.4	10635(c)	Provide supporting documentation that Water Shortage Contingency Plan has been, or will be, provided to any city or county within which it provides water, no later than 30 days after the submission of the plan to DWR.	Plan Adoption, Submittal, and Implementation	Section 10.4.4 (See Commitment to Distribute in Appendix A)

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 8.14	10632(c)	Make available the Water Shortage Contingency Plan to customers and any city or county where it provides water within 30 after adopted the plan.	Water Shortage Contingency Planning	Section 10.4.4 (See Commitment to Distribute in Appendix A)
	x	Sections 9.1 and 9.3	10631(e)(2)	Wholesale suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and supplier assistance program.	Demand Management Measures	N/A
x		Sections 9.2 and 9.3	10631(e)(1)	Retail suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand Management Measures	Chapter 9
x		Chapter 10	10608.26(a)	Retail suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets (recommended to discuss compliance).	Plan Adoption, Submittal, and Implementation	Section 10.3

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 10.2.1	10621(b)	Notify, at least 60 days prior to the public hearing, any city or county within which the supplier provides water that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. Reported in Table 10-1.	Plan Adoption, Submittal, and Implementation	Section 10.2.1
x	x	Section 10.4	10621(f)	Each urban water supplier shall update and submit its 2020 plan to the department by July 1, 2021.	Plan Adoption, Submittal, and Implementation	Section 10.4.1
x	x	Sections 10.2.2, 10.3, and 10.5	10642	Provide supporting documentation that the urban water supplier made the plan and contingency plan available for public inspection, published notice of the public hearing, and held a public hearing about the plan and contingency plan.	Plan Adoption, Submittal, and Implementation	Section 10.2.2, Section 10.3, See Appendix A
x	x	Section 10.2.2	10642	The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water.	Plan Adoption, Submittal, and Implementation	Section 10.2.1
x	x	Section 10.3.2	10642	Provide supporting documentation that the plan and contingency plan has been adopted as prepared or modified.	Plan Adoption, Submittal, and Implementation	See Section 10.3, Appendix K

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 10.4	10644(a)	Provide supporting documentation that the urban water supplier has submitted this UWMP to the California State Library.	Plan Adoption, Submittal, and Implementation	Section 10.4.3 (See Commitment to Distribute in Appendix A)
x	x	Section 10.4	10644(a)(1)	Provide supporting documentation that the urban water supplier has submitted this UWMP to any city or county within which the supplier provides water no later than 30 days after adoption.	Plan Adoption, Submittal, and Implementation	Section 10.4.4 (See Commitment to Distribute in Appendix A)
x	x	Sections 10.4.1 and 10.4.2	10644(a)(2)	The plan, or amendments to the plan, submitted to the department shall be submitted electronically.	Plan Adoption, Submittal, and Implementation	Section 10.4.2 and 10.6
x	x	Section 10.5	10645(a)	Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Section 10.5 (See Commitment to Distribute in Appendix A)
x	x	Section 10.5	10645(b)	Provide supporting documentation that, not later than 30 days after filing a copy of its water shortage contingency plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Section 10.5 (See Commitment to Distribute in Appendix A)

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 10.6	10621(c)	If supplier is regulated by the Public Utilities Commission, include its plan and contingency plan as part of its general rate case filings.	Plan Adoption, Submittal, and Implementation	N/A
x	x	Section 10.7.2	10644(b)	If revised, submit a copy of the water shortage contingency plan to DWR within 30 days of adoption.	Plan Adoption, Submittal, and Implementation	Section 10.6

Appendix K

ADOPTION RESOLUTIONS

RESOLUTION NO. 22-05
OF THE TAHOE CITY PUBLIC UTILITY DISTRICT
ADOPTING THE 2020 URBAN WATER MANAGEMENT PLAN

WHEREAS, the California Legislature enacted Assembly Bill 797 (Water Code Section 10610 et seq., known as the Urban Water Management Planning Act) during the 1983-1984 Regular Session, and as amended subsequently, which mandates that every supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre feet of water annually, prepare an Urban Water Management Plan (UWMP), the primary objective of which is to plan for the conservation and efficient use of water; and

WHEREAS, the Tahoe City Public Utility District (TCPUD) has been classified as an urban water supplier of water providing water to over 3,000 customers: and

WHEREAS, the UWMP shall be periodically reviewed at least once every five years, and that the TCPUD shall make any amendments or changes to its UWMP which are indicated by the review; and

WHEREAS, the TCPUD has therefore, prepared and made available for public review a draft 2020 UWMP, and a properly noticed public hearing regarding the 2020 UWMP was held by the TCPUD on February 18, 2022; and

WHEREAS, the UWMP must be adopted after public review and hearing, and submitted to the California Department of Water Resources by July 1, 2021; and

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the TCPUD, as follows:

1. That the above recitations are true and correct.

2. That the 2020 Urban Water Management Plan is adopted in substantial form as presented.

PASSED AND ADOPTED on the 18th day of February 2022, at a meeting of the Board of Directors of the Tahoe City Public Utility District by the following roll call vote:

AYES: Scoville, Friedman, Beals, Wilkins, Pang
NOES: None
ABSENT: None

TAHOE CITY PUBLIC UTILITY DISTRICT

BY: _____
John Pang, President

ATTEST: _____
Terri Viehmann, District Clerk