Mammoth Community Water District

2025 URBAN WATER MANAGEMENT PLAN
May 2026

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1.1 Background and Purpose

The Mammoth Community Water District's (MCWD) 2025 Urban Water Management Plan (UWMP or Plan) has been prepared to comply with the Urban Water Management Planning Act (Act), as required by the California Water Code (CWC). The purpose of the Act is to ensure water suppliers assess resources and plan for current and future water demands to avoid future emergency shortfalls of water supplies. Information is presented in five-year planning intervals for the next 20 years, until 2045, assessing the reliability of water sources, describing demand management measures, and discussing the current use and planned use of recycled water. The UWMP includes a Water Shortage Contingency Plan which outlines actions to take during various levels of water shortage Local water purveyors are tasked with developing their own UWMP as they are considered to have the most knowledge about resource planning for their unique location and circumstances.

The Act has gone through significant expansion and revision since 2015 in response to prolonged droughts, groundwater overdraft, regulatory revisions and changing climatic conditions. However, no new amendments have been adopted since the publication of the District's 2020 UWMP.

MCWD's 2025 UMWP will serve as a guide for District strategic planning to ensure long-term water supply reliability for the Town of Mammoth Lakes (Town). It is a resource for the public, MCWD staff, and elected officials to understand MCWD's past, current, and future water supply conditions and management. This Plan is an update of the District's 2020 UWMP and serves as an independent and complete document.

In 2009, the Act was modified by the Water Conservation Bill of 2009 (SB X7-7) which requires a statewide 20 percent reduction in urban per capita water use by December 31, 2020. To meet this goal in the 2015 UWMP, every urban retail water supplier had to establish and report a baseline daily per capita water use and establish 2020 targets. In the 2020 UWMP, MCWD demonstrated MCWD's compliance with the target. State grants and loans are not available to water purveyors that do not comply with the requirements of SB X7-7.

For ease of reading and clarification, Appendix A contains a list of definitions and abbreviations used in this document.

1.2 UWMP and the California Water Code

The Act was enacted by the California legislature in 1983 (AB 797; Water Code, Division 6, Part 2.6, §10610-§10656). Lawmakers recognized state waters as a limited and renewable resource that are continuously subject to increasing demands. To ensure a reliable, long-term and safe water supply for California, the Act requires water suppliers providing water for municipal purposes to more than 3,000 customers, or supplying more than 3,000 acre-feet of water annually, to pursue efficient use of water for urban water demands through policies and management planning.

The Plan is required to include a description of the various components that affect the water supply and demands in a supplier's service area. For example, information about the available and potential future water resources; climate, legal and environmental supply restrictions; plans for water shortages; and

implementation of measures to reduce water demand are required for inclusion in UWMPs. Urban water suppliers must prepare and submit to the California Department of Water Resources (DWR) an updated UWMP every five years.

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

In November 2009, Senate Bill SB X7-7 was adopted requiring a 20 percent statewide average reduction of per capita water use by December 31, 2020. To achieve this mandate, water suppliers were required to report on baseline water use and develop an interim 2015 target and 2020 target. Urban water suppliers that do not meet the provisions of the Water Conservation Act of 2009 will not be eligible for state water grants or loans, effective in 2016. Chapter 5 of this UWMP demonstrates that MCWD met its 2020 target pertaining to SB X7-7.

1.3 Urban Water Management Plans in Relation to Other Planning Efforts

Development of the UWMP required collaboration with the Town of Mammoth Lakes to estimate future water demand based on buildout scenarios and policies that affect water use efficiency. In addition to oral and e-mail communication with Town Community and Economic Development Department (CEDD) staff, the following Town documents were relied on:

- Town of Mammoth Lakes Housing Element 2019 – 2027, TOML 2022
- Town of Mammoth Lakes General Plan Update, TOML Sept 2019
- Resilient Mammoth Lakes – Vulnerability Assessment, TOML Aug 2019
- Mammoth Lakes Tourism Occupancy Reports

The reliability of local water supply resources includes consideration of the expansion of the Casa Diablo Geothermal Plant. MCWD continues to work closely with the U.S. Bureau of Land Management and the plant owner, Ormat Technologies, Inc., to ensure protection of groundwater resources. A Monitoring and Response Plan that includes additional monitoring wells was adopted; this will serve to protect MCWD's water resources from potential geothermal production and injection impacts.

1.4 UWMPs and Grant or Loan Eligibility

Acceptance of a completed UWMP by DWR is required to be eligible for water management grants and loans administered by DWR. Urban water suppliers must also maintain a current, DWR approved UWMP throughout the term of any grant or loan administered by DWR. The Water Code has provisions for Urban Suppliers that do not meet the SB X7-7 required per capita reductions and desire to receive DWR administered grants and loans. These provisions are specified in CWC §10608.56 (a) – (f) and require the urban water supplier to submit a schedule, financing plan, and budget for achieving the per capita reductions; or demonstrate that the service area qualifies as a disadvantaged community or meets both criteria. MCWD met its 2020 calculated SB X7-7 targets in 2020 and 2025, however MCWD failed to meet the State Water Board's calculated Urban Water Use Objective (UWUO) for fiscal year 2024-2025. Compliance with the UWUO requirements is under the authority of the State Water Board; UWUO requirements are not part of UWMP plan content requirements. MCWD has consulted with the State Water Board staff regarding the best approach for the situation and continues to strive to reduce overall water consumption. Additional information is provided in Chapter 5.

1.5 Lay Description

The Mammoth Community Water District was formed in 1957 to provide water and wastewater services to the community of Mammoth Lakes in Mono County, California. The District supplies water for municipal purposes only. Potable treated water is stored in ten distribution system storage reservoirs with a total storage capacity of 8.2 million gallons (MG) or 25.2 acre-feet. Approximately 2 million gallons of storage is available for reclaimed water stored prior to distribution for irrigation. The water distribution system also includes 81 miles of pipelines, seven booster pump stations, five pressure zones within an elevation range between 7,520 and 8,620 feet, and 21 monitoring wells in the Mammoth Basin. All of MCWD's water resources are located in the Mammoth Basin. Sources of water include surface water, groundwater, and recycled water. There is no water imported into the service area.

Each year, winter precipitation received and stored as snow in the Lakes Basin provides MCWD's surface water resources as the weather warms. Surface water supply is stored and diverted from Mammoth Creek at Lake Mary. Lake Mary is relatively small with a storage capacity of about 606 acre-feet. Because of this storage limitation, high spring runoff flows typically cannot be fully utilized as allowed under MCWD's water right permit and licenses. MCWD utilizes groundwater from nine production wells in the Mammoth Basin to supplement its primary surface water supply. Groundwater supply can be limited by the capacity of the District's nine wells, groundwater level drawdown impacts on well production, and the ability of the two groundwater treatment plants (GWTPs) to effectively treat and remove naturally occurring drinking water contaminants such as arsenic, iron and manganese. The groundwater aquifer is recharged by the same snowpack supplying surface water. MCWD also reclaims and treats wastewater to Title 22 standards. Recycled water is used for golf course irrigation and for construction water.

The District's service area has a large transient population composed mainly of out-of-town visitors and seasonal employees. Future population estimates are challenging in a transient community, where visitation can be easily impacted by weather/snow conditions and economic conditions. In response, the District prepared its analysis assuming Town Buildout is achieved in 2040, which is unlikely. With a heavy reliance on snowpack for water supply, the District remains flexible and dynamic to adapt to the potential impacts of climate change. MCWD has developed effective demand management measures to be prepared in times of water supply shortage. In addition, the District continues to ensure protection of its water resources, as well as exploring options for expansion of its groundwater capacity.

2.1 Basis for Preparing a Plan

The CWC requires every urban water supplier to adopt an Urban Water Management Plan and to update the plan every five years. An Urban Water Supplier is defined as "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" (CWC §10617). MCWD serves approximately 3,568 connections and supplies, based on a ten-year average, 1,943 acre-feet of water annually.

2.1.1 Public Water Systems

The state defines a Public Water System (PWS) as 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 of the year." These systems are regulated by the State Water Resources Control Board (SWRCB), Division of Drinking Water. The SWRCB utilizes Public Water System data to determine whether a supplier meets the Urban Water Supplier criteria and requirement to adopt and submit a UWMP to Department of Water Resources (DWR). MCWD's PWS data provided to DWR for 2025 is shown in Table 2-1 Public Water Systems below.

Table 2-1 Public Water Systems

Public Water System Number	Public Water System Name	Number of Municipal Connections 2025	Volume of Water Supplied 2025 (AF)
2610001	Mammoth CWD	3,568	1,970

(DWR Table 2-1)

2.2 Individual or Regional Planning and Compliance

MCWD's 2025 UWMP is an Individual rather than a Regional Urban Water Supplier report. Agencies may choose to develop a Regional UWMP in cooperation with other groups, wholesalers or other regional entities.

2.3 Fiscal or Calendar Year and Units of Measure

Calendar year and acre-feet are used as units of measurement in this UWMP unless noted otherwise.

2.4 Coordination and Outreach

The CWC mandates that Urban Water Suppliers coordinate plan development with other appropriate agencies in the region. MCWD notified the Town of Mammoth Lakes (Town or TOML), Mono County, the local United States Forest Service (USFS) offices, the Los Angeles Department of Water and Power (LADWP), the Inyo – Mono Regional Water Management Group Program Office, and the Mammoth Mountain Ski Area in January 2026 that the 2020 UWMP would be updated and comments would be accepted. The list of agencies and organizations that received notification are included in Table 2-2 Agencies/Organizations Notified of UWMP Update and a copy of the notification letter is provided in Appendix B.

Table 2-2 Agencies/Organizations Notified of UWMP Update

Coordinating Agencies	Received Notice of Preparation	Contacted for Assistance
Town of Mammoth Lakes	Mailed and emailed 1/7/2026	X
Mono County	Mailed and emailed 1/7/2026	
LADWP	Mailed and emailed 1/7/2026	
Inyo National Forest Service – Mammoth Lakes Ranger Station	Mailed and emailed 1/7/2026	
Inyo – Mono Regional Water Management Group Program Office	Mailed and emailed 1/7/2026	
Mammoth Mountain Ski Area	Mailed and emailed 1/7/2026	

The development of the UWMP relies heavily on the Town to supply development data and population and occupancy estimates. Estimates of future water demand are based on future buildout scenarios contained in Town planning documents. MCWD staff collaborated with Town Community and Economic Development staff to ensure buildout scenarios were interpreted correctly for use in estimating future water demand.

3.1 General Description

The Mammoth Community Water District was formed in 1957 to provide water and wastewater services to the community of Mammoth Lakes in Mono County, California. The Town of Mammoth Lakes has a resident population of 7,859 people (CA DOF 2019) and a varying transient population mainly composed of tourist visitors and seasonal employees. MCWD is a public agency formed under the County Water District Law (CWC §§ 30000 et seq.) and is governed by a publicly-elected five-member Board of Directors.

MCWD has 3,568-metered connections and relies on a mix of water supplies from Mammoth Creek (Lake Mary), the Mammoth groundwater basin, and reclaimed water. The District has four water treatment facilities; one plant receives surface water from Lake Mary, two treat water from the nine groundwater production wells, and the wastewater treatment plant provides treated reclaimed water to distribute for irrigation. Potable treated water is stored in ten distribution system storage reservoirs with a total storage capacity of 8.2 million gallons (MG) or 25.2 acre-feet. Approximately 2 million gallons of storage is available for reclaimed water stored prior to distribution for irrigation. The water distribution system also includes 83 miles of pipelines, seven booster pump stations, 14 pressure zones within an elevation range between 7,520 and 8,620 feet, and 21 monitoring wells in the Mammoth Basin. MCWD also provides wastewater collection and treatment, which includes wastewater recycling for golf course irrigation within its service area.

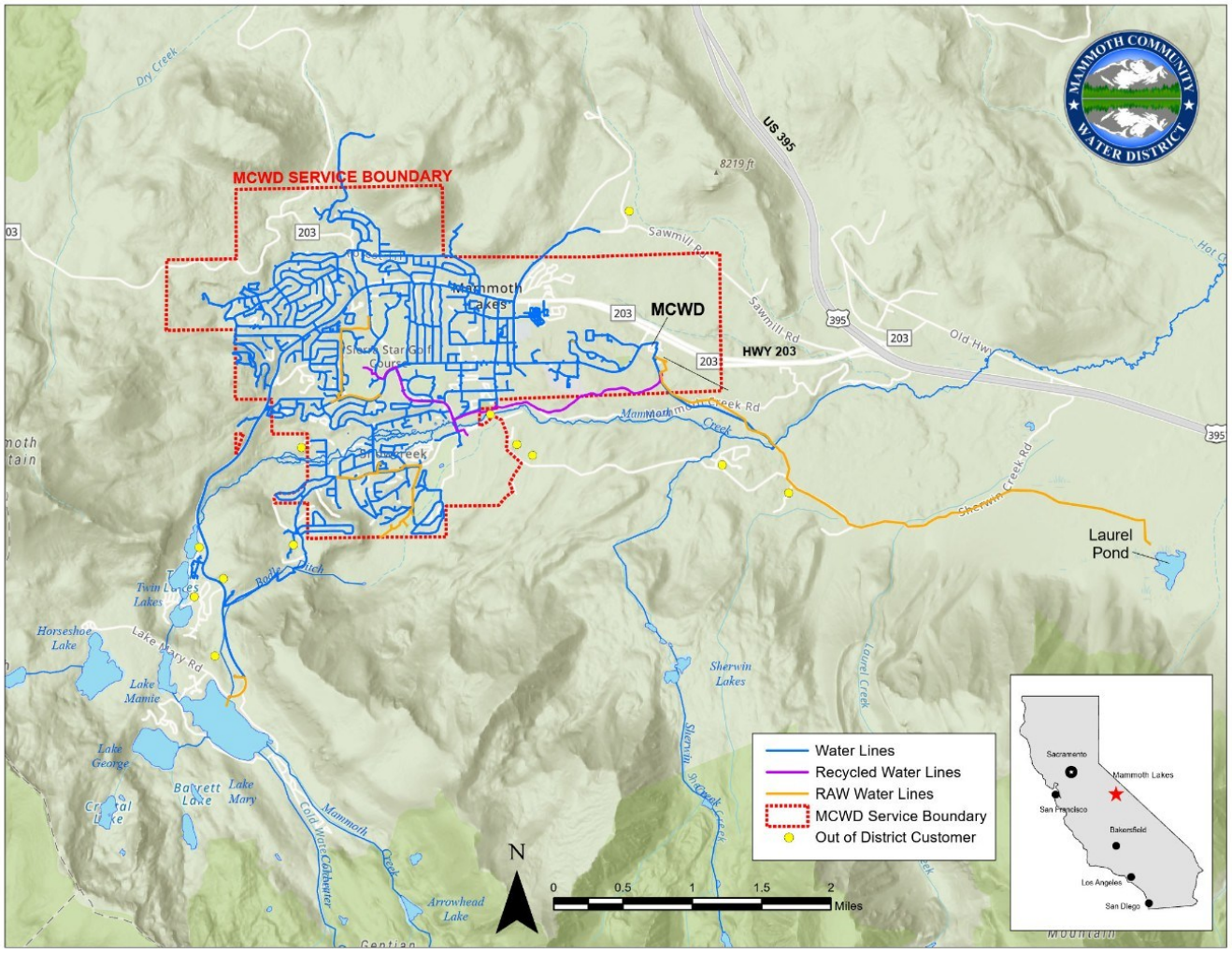
The Town is located in a vast scenic natural landscape that attracts large numbers of visitors. At an elevation of approximately 7,800 feet, the Town is just east of the 12,500-foot peaks on the Sierra Nevada crest. Further east, the elevation drops to the 7,000-foot terrain of the Great Basin region. In 1993, the Town adopted an Urban Growth Boundary (UGB) within the 25 square mile Municipal Boundary to delineate the urban landscape from the surrounding natural landscape. The UGB encompasses approximately 4 square miles (TOML 2019b). There are 2,500 acres of privately owned land in the developed portion of the Town's Municipal Boundary, with the remaining lands publicly owned and managed by the Inyo National Forest unit of the United States Forest Service. The local economy is driven by recreation-based tourism, with visitors drawn to the area's spectacular natural setting and summer and winter outdoor recreation opportunities, including Mammoth Mountain Ski Area (MMSA), a major California ski resort and employer. The total housing stock of around 9,700 units is estimated to be 59.4% dedicated to seasonal, recreational and occasional use, reflecting the popularity of the Town as a location for second-home ownership. In addition, Mammoth Lakes has a large seasonal workforce who serve the ski area and support businesses (restaurants, lodging, retail, etc.) and associated influx of visitors, and summer construction labor (TOML 2019a).

3.2 Service Area Boundary

MCWD's service area is approximately 3,828 acres and aligns closely with the Town's Urban Growth Boundary. Since the 2015 UWMP, MCWD added 93.84 acres of land to its service area to accommodate a planned development, Snowcreek VIII, shown in Figure 3-1 as "MCWD Service Boundary". No additional parcels of land have been annexed into the service area since the 2020 UWMP. MCWD also supplies water to several small entities outside the service area by agreement. These entities are USFS Twin Lakes Campgrounds and Cabins, USFS Sherwin Creek Campground, YMCA High Sierra Campground, Mammoth Lakes Pack Station, USFS Pack Station, Sierra Meadows Ranch, Tamarack Lodge and Resort,

Twin Lakes Art Gallery, Mill City Cabins, a private parcel, and Shady Rest Park Figure 3-1 MCWD Service Area, Out of Service Area Customers, and MCWD Facilities displays the District's Service Boundary, , the Raw Water Lines, Recycled Water Lines, Potable Water Lines, and notes locations of the Out-of-Service Area Customers.

Figure 3-1 MCWD Service Area, Out of Service Area Customers, and MCWD Facilities



3.3 Service Area Climate and Climate Change

Mammoth Lakes is located in the rain shadow of the Sierra Nevada mountain range; however, Mammoth Pass provides a low spot in the crest that allows some moisture from the west to flow into the region, helping to mitigate the rain shadow effect. Mammoth Mountain Ski Area, located just east of the crest, captures a significant amount of snowfall each winter. Annual precipitation varies considerably within the service area, depending on elevation and distance from Mammoth Pass. To demonstrate the elevation gradient of precipitation extremes, average annual precipitation ranges from about 42.5 inches at Mammoth Pass (9,300 ft.) at the western boundary of the Mammoth basin watershed to 10 inches at the Crowley Lake Dam (6,900 ft.) (CDEC, LADWP records) in the easternmost part of the basin. Average annual precipitation in the Town is approximately 23 inches. See Table 3-1 Average Temperature and Precipitation for average monthly climate data. In Town, the winter season, December through February, is characterized by mostly sunny skies and high temperatures averaging about 40°F and low temperatures averaging about 16°F. In contrast, summers are mild with average temperatures about 75°F for a high and 44°F for a minimum.

Table 3-1 Average Temperature and Precipitation

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Avg. Max. Temperature (F)	41.2	41	45.5	51.2	60.4	70.3	77.8	77.4	71.3	60.7	49.3	41.4	-
Avg. Min. Temperature (F)	16.6	17.7	22.2	27.1	34.5	42.2	48.9	47.4	39.8	30.2	23.2	17.1	-
Avg. Total Precipitation (in.)	4.2	3.77	3.28	1.54	1.49	0.47	0.51	0.49	0.47	1.43	2.00	4.07	23.72
Avg. Total Snowfall (in.)	43.1	44.0	30.2	17.0	4.4	0.5	0.0	0.0	0.0	6.7	14.9	45.3	206.1
Avg. Snow Depth (in.)	20	25	20	7	0	0	0	0	0	1	2	10	85

Monthly data from 1991-2020 normals. Data source: https://www.ncei.noaa.gov/access/us-climate-normals/#dataset=normals-monthly&timeframe=30&station=USC00045280. Accessed 2/24/2026.
Average Total Snowfall and snow depth data source: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca5280. Accessed 2/24/2026

3.3.1 Climate Change

In 2008, the State of California moved to become better informed about climate change impacts and to prepare for the resulting effects. State agencies were asked to develop strategies to identify and plan for expected impacts of climate change. The initial result of these efforts was the 2009 California Climate Adaptation Strategy report (CNRA 2009). In 2018, the Safeguarding California Plan was completed as an update to the CNRA. The Strategy report is updated every three years, with the most recent update being in 2024. The update is the State's roadmap for everything state agencies are doing and will do to protect communities, infrastructure, services, and the natural environment from climate change impacts (CNRA, 2018). The 2024 update integrates and connects key elements of the latest specific State action plans such as the Extreme Heat Action Plan, Water Supply Strategy, Climate Smart Lands Strategy, Wildfire and Forest Resilience Action Plan, and Climate Action Plan for Transportation Infrastructure.

Changes in hydrology identified in the Safeguarding California Plan include:

- ◊ Declining snowpack, earlier snow melt, more precipitation as rain than snow
- ◊ More frequent and longer droughts
- ◊ More frequent and more severe flooding
- ◊ Changes in the timing and volume of peak runoff, and consequent impacts on water quality and availability

Vulnerabilities of water resources identified in the Safeguarding California Plan specific to the Eastern Sierra include:

- ◊ Loss of snowpack and earlier runoff
  - Declining snowpack reduces natural seasonal storage
  - Earlier spring melt shifts peak runoff away from summer demand
  - Reduced late season streamflow stresses riparian and meadow ecosystems
- ◊ Increased drought severity
  - Lower reservoir and lake levels
  - Increased groundwater pumping to compensate for reduced surface flows
  - Heightened vegetation stress and tree mortality
- ◊ Groundwater and land surface impacts
  - Greater groundwater reliance increases risk of aquifer depletion
  - Lower groundwater tables can dry out meadows and springs
- ◊ Ecosystem and habitat stress
  - Wamer stream temperatures threaten cold-water species
  - Changes in runoff patterns alter sediment transport
- ◊ Wildfire and watershed degradation
  - Post-fire erosion and sediment loading into water bodies
  - Reduced snow retention in burned forests
  - Altered runoff timing
- ◊ Increased variability and operational challenges
  - Greater year-to-year variability in runoff
  - More intense winter storms
  - Longer dry periods between precipitation events

Overall, the Eastern Sierra is transitioning from a snow-buffered system to a more rain-dominated variable, and drought-intensified system, increasing risk to water supply, groundwater sustainability, and ecosystem integrity.

The CNRA recommended the State develop a website to "synthesize existing climate change scenarios and climate impact research and to encourage its use in a way that is beneficial for local decision-makers." This website, www.Cal-Adapt.org, is now available to the public. The data in Cal-Adapt "is taken from a selection of global climate models and downscaled to about 7-kilometer resolution" to make it more useful for California regions. Furthermore, agencies are able to delineate an area based on a specific watershed. Analysis is provided under two separate climate scenarios utilizing Representative Concentration Pathways (RCPs). Data is analyzed for RCP 4.5, which assumes that greenhouse gas emissions (GHG) peak around 2040 and then start to decline due to changes in society's behavior, and in RCP 8.5, which assume that GHG emissions continue to rise significantly through 2050 and then plateau around 2100.

Figure 3-2 Modeled Temperature Changes for the Mono County Area from the Cal-Adapt website shows modeled changes to average temperatures in the Mono County region. The temperature model for Mono County shows a range of temperature increases in Mid-Century (2035-2064), from +4.3°F to +5.9°F for the low and high emissions scenarios, respectively, and increases in End-Century (2070-2099), from 6.2°F to 9.9°F. "On average, the projections show little change in the total annual precipitation in

California" (Cal-Adapt, 2018). However, the models indicate a decrease in snowpack water content, due to more precipitation falling as rain instead of snow. Figure 3-3 Modeled Snowpack Changes for the Hot Creeks-Owens Watershed (RCP 4.5) shows changes to snow water equivalence in the Hot Creek-Owens River Watershed under 4 models in the RCP 4.5 scenario. The model indicates a decrease in snow water equivalence from an annual mean for 1961-1990 of 8.9 inches to an annual mean for 2070-2099 of 6.8 inches. Under the RCP 8.5 scenario the annual mean for 2070-2099 decreases to 4.9 inches.

In 2019, The Town of Mammoth Lakes completed a Vulnerability Assessment to assess climate change impacts. The assessment considered 10 exposures faced by Mammoth Lakes:

- ◊ Drought
- ◊ Extreme heat
- ◊ Flooding
- ◊ Forestry pests and diseases
- ◊ Human health hazards
- ◊ Landslides and mudflows
- ◊ Severe weather
- ◊ Severe winter weather
- ◊ Smoke and ash
- ◊ Wildfire

The Drought assessment included in the Vulnerability Assessment includes a discussion regarding future snow conditions. "Overall precipitation levels are not expected to change much, but the snowline around Mammoth Lakes is expected to change significantly because more precipitation is expected to fall as rain rather than snow, reducing the amount of snow that builds up over winter." (Placeworks, 2019). The Vulnerability Assessment also found that floods are projected to increase and, while climate change does not directly cause more frequent landslides and mudslides, it is projected to increase conditions that can cause them.

Accelerated timing of snowpack melting and runoff is expected due to increased temperatures, as well as potential increased water demands due to longer irrigation seasons and higher temperatures. MCWD's surface and groundwater supply is reliant on winter precipitation, as well as the rate of runoff within the snowpack. Sediment loads from flood events and higher temperatures may have adverse effects of MCWD water quality.

Figure 3-2 Modeled Temperature Changes for the Mono County Area

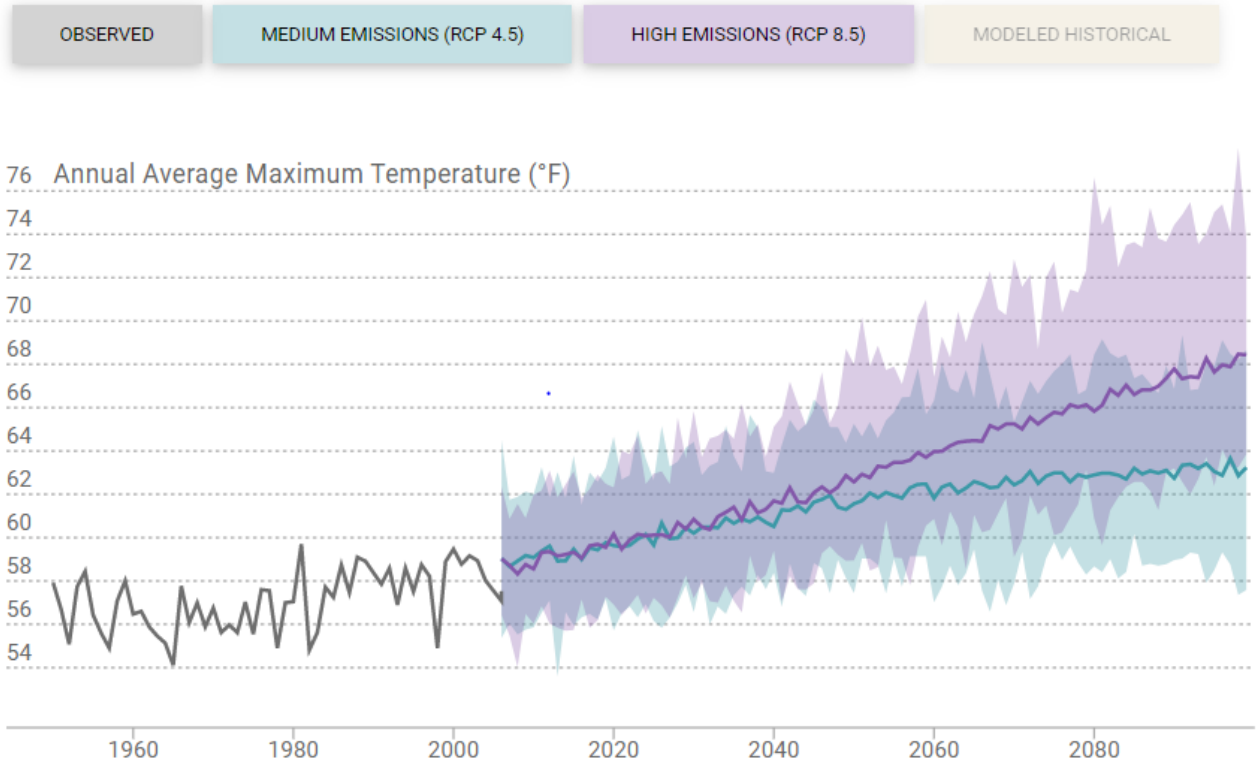
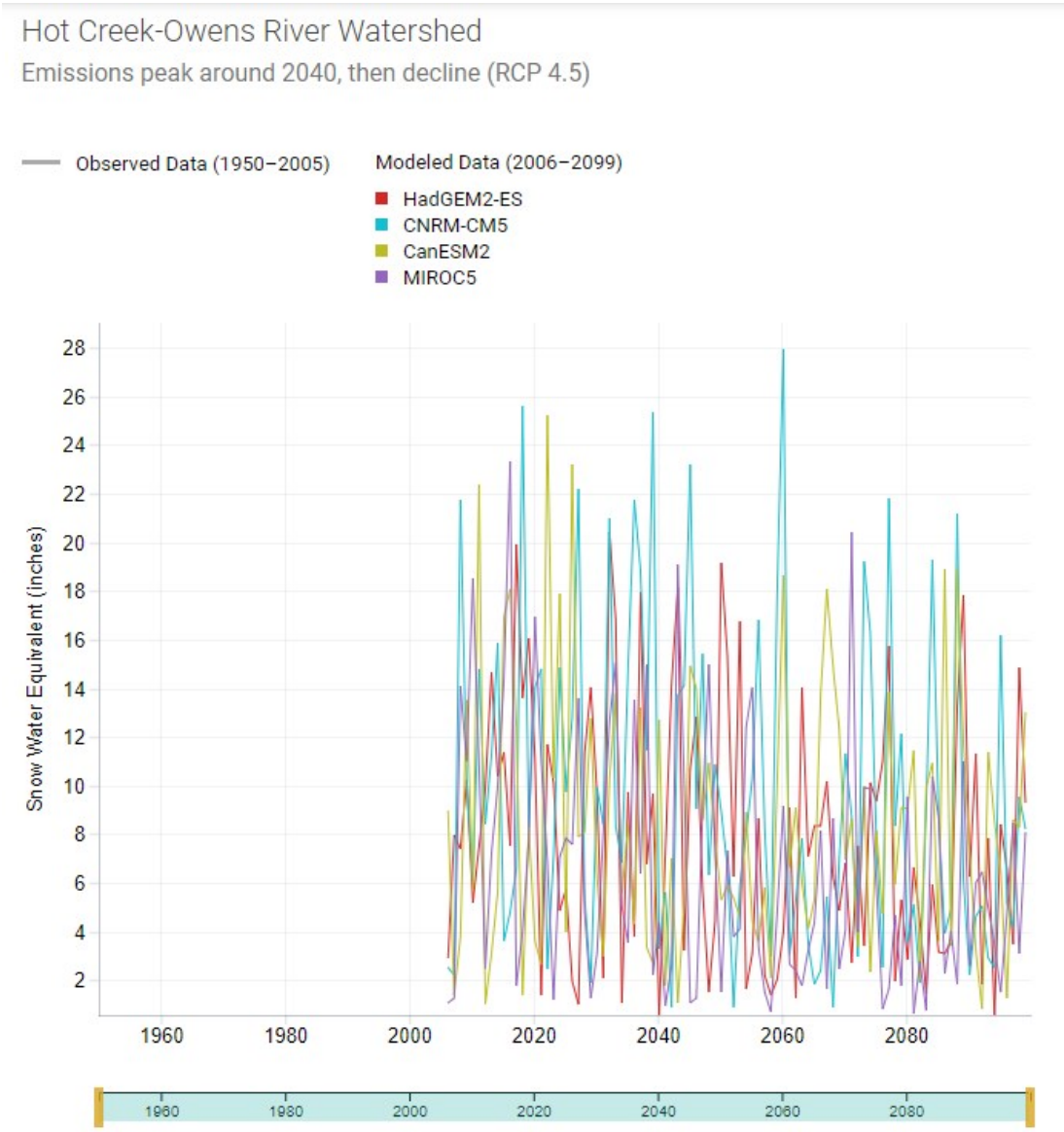


Figure 3-3 Modeled Snowpack Changes for the Hot Creek-Owens Watershed (RCP 4.5)



3.3.2 MCWD's Adaptation Strategies for Climate Change

Water Use Efficiency – Increasing water use efficiency will remain an ongoing program at MCWD. Efficiency projects consist of infrastructure improvements, maximizing recycled water production and delivery for irrigation, leak detection and repair, and customer-based programs. See Chapter 9 for a detailed discussion and descriptions of demand management measures implemented by MCWD.

Integrated Regional Water Management – The District has been an active participant in the Inyo-Mono Integrated Regional Water Management Group since its inception in early 2008. District staff serves on committees and participates in stakeholder meetings. In addition, the District has provided financial support for the group's program office staff to update plans as required by DWR and to apply for group planning and implementation grants. Since 2020, the group has met four times, and work has been limited due to financial constraints. The District intends to remain actively involved with the Inyo-Mono group.

Ecosystem Enhancement/Protection – The integrity of the Mammoth Basin ecosystem is important to MCWD because a well-managed ecosystem has a higher capacity to absorb precipitation and flood events, maintain higher water quality, and draw visitors to the region. To support ecosystem sustainability, the District has 26 monitoring wells to protect groundwater resources. In addition, MCWD collaborated with the United States Bureau of Land Management (BLM), United States Geological Survey (USGS), Great Basin Unified Air Pollution Control District (GBUAPCD), and a local geothermal plant owner, Ormat Corporation, to develop a Groundwater Monitoring and Response Plan that will help protect MCWD aquifers and the local environment by providing real-time water quality data. This collaboration resulted in additional groundwater monitoring wells – in 2021, two were drilled by the BLM, and a third was drilled by the District.

The District collaborated with the Inyo National Forest, Mammoth Lakes Fire Safe Council, and the Mammoth Fire Protection District to implement the Lakes Basin Hazardous Fuels Reduction Project. MCWD provided administrative oversight on the $1,000,000 grant received from Sierra Nevada Conservancy to complete the project.

Beginning in 2024, the District began providing financial contributions to Clean Up The Lake (CUTL), a nonprofit water quality protection organization, to conduct projects within the Mammoth Lakes Basin. In 2023, CUTL completed a circumnavigation of Lake George collecting litter, assessing underwater habitat, and surveying for aquatic invasive species. In 2024, CUTL returned to the Basin to conduct submerged litter removal, underwater habitat assessments, and aquatic invasive species assessments within Lake Mary, and in 2025, CUTL removed submerged litter from McLeod Lake.

Expanded Storage and Conjunctive Water Management – Increasing surface water storage by raising the dam at Lake Mary or recharging the aquifer at the District's production wells using aquifer storage and recovery (ASR) would increase water supply reliability in the face of changing hydrologic patterns in the Mammoth Basin. However, no current plan is in place to implement these projects. MCWD conjunctively manages surface and groundwater supplies now; and both are directly linked to the primary water source of natural precipitation within the Basin.

Resource Monitoring and Data Collection – Stream flows, lake levels, and groundwater aquifers are monitored intensively by MCWD. Inflows to Lake Mary are measured daily between April 1 and November 1 and weekly during the remainder of the calendar year. The level of Lake Mary, Mammoth Creek flows, and the groundwater monitoring wells are monitored continuously through SCADA or data loggers. Mammoth Creek near the crossing of Highway 395 is measured daily. Data collected is used to ensure MCWD is managing water resources according to its SWRCB water right licenses and permit, monitor potential impacts to local springs, and improve water supply models.

MCWD has implemented efforts to reduce the potential for wildfire damage to facilities and water supplies. Fuel reduction around MCWD offices and facilities is an ongoing program. In 2019, MCWD supported a large project to complete over 600 acres of valuable fuel reduction work in the Mammoth Lakes Basin, an integral part of MCWD's watershed, by managing a grant for the Mammoth Lakes Fire Safe Council. This project provided valuable protection for the community's water supply. The project created a large fuel break, reduced standing fuel loads, increased defensible space, and improved riparian habitat health within the Mammoth Lakes Basin. The Whitebark Institute, a local non-profit dedicated to enhancing forest health and reducing wildfire risk, completed a Needs Assessment and Project Prioritization Analysis in 2022 and an Environmental Assessment in 2024 to identify additional fuel mitigation projects. The Whitebark Institute began project implementation in spring 2025 and work

is on-going. The District signed an MOU with Whitebark and other organizations to continue collaboration towards the goal of reducing wildfire risk and improving environmental resources.

3.4 Service Area Population and Demographics

3.4.1 Service Area Population

The UWMP is required to include an estimate of the current and future population of the service area. Permanent resident population estimates for 2025 relied on data from the 2024 CA Department of Finance (DOF), which reported 7,040 permanent residents in Mammoth Lakes in 2025, which decreased from 2020. The DOF estimates Mammoth Lakes' population has been flat to slightly declining from 2020 through 2025 with no net population growth, and an average rate of decrease of approximately -1.1% between 2020-2024. The DOF does not produce a city-level population projections for the Town of Mammoth Lakes. According to the 2024 American Community Survey, the Town's permanent population in 2024 was 7,124 (ACS 2024 5 year).

For purposes of evaluating impacts of Mammoth Lakes' population on water and wastewater services, consideration of the transient population is essential. Therefore, in addition to the DOF and U.S Census Bureau estimate of the resident population, MCWD added an estimate of the transient population present in Mammoth Lakes based on Town estimates of dwelling units and an average occupancy report. This combination of transient and resident population is referred to as the "effective annual population" for the purposes of this UWMP.

Future permanent resident population figures were calculated using projections from the State of California Department of Finance which predicts an average growth rate of -1.5% over the next 20 years in Mono County (DOF 2025). Peak population estimates (visitors and seasonal employees) were based on current and projected buildout of dwelling units and estimated 3.34 persons per unit as described in the Town's General Plan (TOML, 2019b). The average occupancy rate was calculated utilizing Mammoth Lakes Tourism's (MLT) daily occupancy report for every day from January 1, 2016 through December 31, 2025. MLT was founded in 2010 to provide visitor information and encourage visitation to the Mammoth Lakes area. In 2015, MLT started tracking transient occupancy in Mammoth Lakes. Both the current and future estimates of effective annual population assume a 53.6% occupancy of peak non-resident population uses on a continuous basis. In the 2015 UWMP, an average 30% occupancy peak non-resident population was utilized, and in the 2020 UWMP an average of 52% was utilized. However, with increased tourism and no updates to the Town studies previously utilized for occupancy estimates, utilizing occupancy numbers produced by MLT provides a more accurate depiction of occupancy in the District's service area over the last five years. Current and projected population estimates are presented below in Table 3-3. Future population estimates are challenging in a transient community, where visitation can be easily impacted by weather/snow conditions and economic health.

Table 3-2 Current and Projected Service Area Population

	2020	2025	2030	2035	2040
Resident Population	7,040[1]	6,934	6,830	6,728	6,627
Peak Visitor Population[2]	39,058	42,566	46,075	49,583	53,091
Effective Annual Population[3]	24,202	26,033	27,865	29,698	31,532

(DWR Table 3-1, Revised)

1. Data from the U.S. Census Bureau decennial census
2. Peak visitor population for the Town is based on estimates of average # of occupants and number of existing and projected housing units.

3. The effective population is calculated by subtracting the resident population from the peak visitor figure. 53.6 percent of this transient population is then added back to the resident population figure to determine the Effective Annual Population.

3.4.2 Other Social, Economic, and Demographic Factors

As described above, Mammoth Lakes has a large transient population that is composed mainly of tourist visitors and seasonal employees, which affects water demand. The tourism-based economy of Mammoth Lakes has resulted in a large portion of the service area being developed to serve visitors, second homeowners, and seasonal workers. According to Census and ACS data, there are a total of 9,649 housing units, of which 65.6% are seasonally vacant. These properties are irrigated throughout the summer regardless of occupancy.

For the permanent resident population, Mammoth Lakes has a median age of 41.3, slightly older than the state, which is 37.9 (Census Bureau ACS 2024, 5-year). The Town's largest age group is 30 to 39. With the tourism economy, there is a predominance of leisure and hospitality jobs. The large number of seasonal and part-time jobs available can necessitate year-round residents having multiple jobs over a year. The most common job group is Management Occupations (27%), Food Preparation and Serving Related Occupations (9.95%), and Office and Administrative Support Occupations (7.77%). In 2025 annual unemployment rate for the Town of Mammoth Lakes is estimated to have been about 2.7 percent (Census Bureau ACS 2024 5-year).

Of Mammoth Lakes' permanent households, 6.1% live below the poverty line and cannot afford most of the market rate rental or owner-occupied housing in town. The median value of owner-occupied housing units is $866,700, which is 20 percent higher than the median value in California and 1.4 times the median value in Mono County. A total of 55.6% of the population lives within owner-occupied housing units.

While the permanent population density in Mammoth Lakes is relatively low (less than 300 people per square mile), Census- and town-based analyses indicate that seasonal and visitor units often house multiple people per unit, resulting in temporary overcrowding and elevated peak-season water demand. The Town's ethnicity makeup consists primarily of White (Non-Hispanic) residents at 61.9%, followed by a Hispanic population of 29.1%, according to data from the Census Bureau.

3.5 Land Uses within Service Area

The District services a resort community. The 2007 General Plan for Mammoth Lakes shows that development to house visitors and transient employees comprises 90 percent of the buildout land area, while commercial and light industry uses fill the remaining 10 percent. These percentages did not change with the 2019 update. Mammoth Lakes' buildout scenario is based on residential and lodging units and commercial square footage. In 2024, there were 9,649 total housing units with a projection of 15,302 units at buildout. There are no existing or planned agriculture or large industrial developments in the Urban Growth Boundary (TOML 2019b).

A large, 580-unit, low-income housing project called "The Parcel" was approved in January 2021 to be developed in Mammoth Lakes. This project received a density bonus to be approved for development. The District is actively coordinating with the Town's Planning and Economic Development Commission and Town staff to ensure that the District is involved in the project's development and water demand would be met. Phase 1, "The Sawyer", consists of 81 units within two buildings with a variety of unit sizes between studio and three-bedroom, was completed and opened in August 2024. Grading for

Phase 2, The Kingfisher, consists of 148 units, was completed in fall 2023 and construction began in spring 2024.

In recent years, the Town partnered with Eastern Sierra Community Housing, a 501(c)(3) nonprofit housing organization that supports workforce housing in Mammoth Lakes and across the Eastern Sierra, to support development of affordable housing. In 2024 the partnership led to a former hotel, The Innsbruck Lodge, being converted to 16 apartments for the purpose of long-term affordable housing. The same year, a small-site development project of two duplex structures containing a total of four residential units was constructed for households earning up to 150% AMI.

In 2023 the Town constructed the 40,000 square foot Community Recreation Center (CRC) to house a seasonal (October-April) indoor ice rink and multi-use facility for year-round indoor recreational programs and activities. Approximately 10,600 gallons of water is used annually to initially create the standard National Hockey League ice sheet. Outside the CRC, an approximately 15,000 sf playground was installed.

Chapter 4 WATER USE CHARACTERIZATION

This chapter describes and quantifies current water use and water use projections in five-year increments through the year 2045. Accurately tracking and reporting of current water demands provides sound resource planning to avoid potential future shortfalls in water supply. In addition, future demand projections provide a background for planning necessary infrastructure to support future buildout in the Town of Mammoth Lakes. This information is also used by other agencies that rely on water supply projections.

4.1 Recycled versus Potable and Raw Water Demand

The Mammoth Community Water District supplies potable, raw, and recycled water. Raw water supply can be diverted to the treatment plant to be utilized for potable supply if necessary. Currently, recycled and raw water is supplied to the two golf courses in the service area during irrigation season, approximately May through October. Recycled water is also made available at the District campus for uses such as construction projects via trucked-recycled water distribution. Detailed information regarding recycled water can be found in Chapter 6.

4.2 Past, Current, and Projected Water Use by Sectors

Descriptions of past and current water use and estimates of future demands, divided into five-year increments, are required elements in the UWMP. Customer water demands are further divided into customer use "sectors" as described in CWC §10631(e)(1) and (2) and are shown below in Tables 4-1 and 4-3. In 2016, MCWD reclassified accounts to better align with CWC §10631(e)(1) and (2), which caused some shifting of usage among the sectors when compared to the 2015 UWMP, most notably in the Institutional sector. Customer water demand in this UWMP is defined as water delivered to customers based on meter readings. All MCWD water service connections are metered.

In the 2015 UWMP, MCWD projected 2,066 acre-feet of potable water would be treated in 2020. Actual total water treated in 2020 was 2,024 acre-feet, a 2% difference from the 2015 projection. For this reason, the same methodology was utilized for the 2025 projection. However, it is noted that 2020-2022 had major fluctuations in water demand due to the COVID-19 pandemic affecting travel and over-all water use patterns. Additionally, the projection relies on data from the 2019 General Plan, and an update to the Plan is forthcoming. Projected water use demand was estimated utilizing the Land Use Element of the Town of Mammoth Lakes' General Plan. "Buildout, as described in the General Plan, refers to the maximum number of potential residential units and minimum amount of commercial, industrial and non-residential square footage within the Town's municipal boundary" (TOML, 2019b). The TOML General Plan states that it is not expected full buildout would be reached within a 20-year horizon. However, because a timeline is not established, this 2025 UWMP projects water supply demand and population based on buildout being reached in 2045. MCWD has correlated its customer database sectors to reflect the Town's land use categories. In December 2019, the TOML approved a density bonus for a large low-income, multi-unit project, The Parcel. The additional units added to the MFR sector have been captured in the water demand projections.

Future water demand projections were developed by averaging customer usage data over the four drought years, 2012-2015 for the SFR, MFR, Commercial, and Landscape sectors. Water demand during those years represents a period during which MCWD implemented Water Shortage Restrictions that resulted in significant demand reductions. Applying these lower-than-normal average water demands to

estimated future demand will capture anticipated water efficiencies that will result from legislation, state mandates, and improved technologies. As a result, landscape usage is projected to decrease from 2020 usage, as antiquated irrigation systems are retrofitted. The Institutional class projections were based on usage 2016-2020 because of account class changes that the District implemented in 2016.

Raw and Recycled water is supplied to the two golf courses in the service area. Demand at the golf courses is projected to remain consistent with past years, fluctuating depending on temperature, precipitation, and length of an irrigation season. Projections for Raw and Recycled water were determined by averaging total consumption (Raw and Recycled) from the past 14 years, 2011 – 2025, which had varying climate conditions in the irrigation season, including a drought. Optimization of processes at the wastewater treatment plant resulting from plant improvements allowed for increased production of recycled water. This has resulted in additional recycled water produced and available for delivery. Snowcreek golf course became a recycled water user in 2016. To divide the projected golf course demand between Recycled and Raw water, the past 5-year average of Recycled verses Raw water was applied. 70% of the total golf course usage was applied to Recycled water and the remaining 30% was applied to Raw water. The Snowcreek Golf Course still is planning to expand the course with an additional 9 holes. The District accounted for this expansion in the Snowcreek Golf Course Recycled Water Agreement and intends to meet the future demand with Recycled Water. For this reason, the expansion is only accounted for in the Recycled water projection. Because no date has been established for the expansion, projections begin to account for the expansion in 2035.

Recycled water is also used for construction. 3 acre-feet per year is projected for construction use and included in the Recycled water total. Water loss was calculated at a rate of 6% based on the average water loss from demand between 2021-2025.

4.2.1 Water Use Sectors Listed in Water Code

As previously stated, MCWD has aligned its customer classes with customer use “sectors” as described in CWC §10631(e)(1) and (2). MCWD potable water use categories in this UWMP include Single-family residents, Multifamily, Commercial, Institutional, Landscaped, Raw Water, and Distribution Water Losses. MCWD does not provide water for sale to other agencies, conjunctive use, groundwater recharge, saline water intrusion barriers, or agriculture, and therefore those sectors are not reported on. In addition, MCWD does not have any Industrial customers.

4.2.2 Water Use Sectors in Addition to Those Listed in Water Code

The District does not participate in exchanges, surface water augmentations, transfers or water delivered to wetlands or wildlife habitat. However, MCWD does monitor and maintain flows to support aquatic life and habitat in Mammoth Creek.

4.2.3 Past Water Use

MCWD reviewed usage over the past five years (2021-2025) to assess projected use methodology and understand water use trends. Table 4-1 Past Annual Water Demand – Actual 2021-2025 displays usage over the five-year period.

Table 4-1 Past Annual Water Demand – Actual 2021-2025 (AF)

Water Use Category	2021	2022	2023	2024	2025
Single-family Residential (SFR)	471	388	372	414	419
Multi-family Residential (MFR)	727	692	698	725	713
Commercial	362	367	352	359	350
Institutional	53	58	69	74	81
Landscape	248	173	163	256	254
Golf Course Irrigation (Raw & Recycled water)	306	278	97	179	151
Total*	2,167	1,956	1,751	2,007	1,968

*Total includes volume of water loss

4.2.4 Distribution System Water Loss

MCWD conducts monthly evaluations of the discrepancy between water leaving the water treatment plants and water flowing through customer meters. This frequent check on the distribution system allows staff to act on leaks or meter problems on a regular basis. Distribution system losses can also occur through unauthorized use (theft), meter inaccuracies, and errors in meter reading and billing. MCWD completed a project in 2013 to reduce distribution system losses by replacing aging steel water distribution mains and is currently replacing aging water service laterals. This effort is described in detail in Chapter 9.

SB 555 (Wolk) adopted in 2015 during the drought, required urban retail water suppliers to submit water loss audits to the state by October 1, each year. The District submits a Water Loss Audit Report annually to California Department of Water Resources. Reports are available to the public at https://wuedata.water.ca.gov/.

Table 4-2 Water Loss Reporting for 2016-2025 (AF)

Public Water System ID # Reported in Table 2-1 R	Reporting Period	Submitted to DWR Water Loss Audit Program (yes/no)
CA2610001	2020	Yes
	2021	Yes
	2022	Yes
	2023	Yes
	2024	Yes

(DWR Table 4-4)

4.2.5 Current and Projected Water Use

Current and projected total water use (potable and non-potable) is reported in Table 4-3. Current and projected water demand for potable and raw water by sector is displayed in Table 4-4. Description of how projections were estimated is provided in section 4.2.

Table 4-3 Total Uses for Potable and Non-Potable Water — Actual (AF)

Use Type	Additional Description (as needed)	2025 Actual Water Use	
Drop down list May select each use multiple times These are the only use types that will be recognized by the WUE data online submittal tool		**Potable or Non-Potable (OPTIONAL) Drop down list**	**Volume (AF)**
Add additional rows as needed			
Single Family	SFR, Mobile Homes	Potable	419
Multi-Family	Apt, Condo, Condo with Irrigation	Potable	713
Commercial	Comm, Comm/Res, Motel, Construction water	Potable	350
Institutional/Governmental	Public, District	Potable	81
Landscape	Landscape Irrigation with DIM	Potable	254
Landscape	Golf Course irrigation; Recycled + Raw water	Non-Potable	151
Commercial	Trucked recycled water	Non-Potable	10
Distribution System Water Loss		Potable	145
		Subtotal Potable	1961.8
		Subtotal Non-Potable	161
		Total	2,123
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.			

(DWR Table 4-3)

Table 4-4 Total Uses for Potable, and Non-Potable Water — Projected (AF)

Water Use Type		Projected			
		2030	**2035**	**2040**	**2045**
Single Family	Potable	478	545	622	709
Multi-Family	Potable	857	1,031	1,241	1,492
Commercial	Potable	379	410	443	479
Institutional/Governmental	Potable	111	152	208	284
Landscape	Potable	234	216	199	183
Landscape (Recycled Golf Course)	Non-Potable	152	211	211	211
Landscape (Raw water)	Non-Potable	65	88	88	88
Trucked Recycled Water	Non-Potable	6	6	6	6
Distribution System Water Loss	Potable	154	166	178	191
Subtotal Potable		2,213	2,519	2,889	3,339
Subtotal Non-Potable		224	305	305	305
Total		2,437	2,823	3,194	3,643

(DWR Table 4-2, Revised)

1. The irrigation category includes potable water use on irrigation only metered accounts. Many large landscapes in the service area do not have separate irrigation meters.

4.2.6 Estimating Future Water Savings

Water consumption data during the years MCWD implemented Water Shortage Restrictions were used to project future water demand. These lower-than-normal usage data are anticipated to capture future water savings as described in Section 4.2 above.

MCWD's Water Shortage Restrictions were updated in 2023 and incorporated into the Water Shortage Contingency Plan (WSCP). A copy of the WSCP can be found in Appendix E. Water conservation has also been increased by the leak detection and fixture rebate programs described in Chapter 9, Demand Management Measures.

4.3 Water Use for Lower Income Households

Water suppliers are required to project lower income household water demand for single-family and multifamily residential housing as identified in the housing element of any city or county in the service area of the supplier. The Town of Mammoth Lakes 2019-2027 Housing Element Report (TOML 2019a), the 2005 General Plan Update EIR (TOML 2007a), and the Community Housing Action Plan (CHAP) (WSW, 2017) were used to estimate low-income housing development for 2021-2040.

The Town's CHAP stated that 595 additional low-income units were required to meet the community's needs. Of these units, 275 should be for ownership and 320 for rent. In response to this expansive need for low-income housing, the TOML purchased an approximately 25-acre parcel within the District's service area and is constructing a large, 580-unit affordable housing project. Construction began in 2021, for the first phase of 81 units that were occupied in 2024. This project received a density bonus to be approved for development. The District is actively coordinating with the Town's Planning and Economic Development Commission and Town staff to ensure the District is abreast of the project's development and water demand and connection needs. The additional units added to the MFR sector have been captured in the water demand projections in Table 4-4 Total Uses for Potable, and Non-Potable Water — Projected (.

Water projections for low-income housing applied 2012-2015 average consumption per dwelling unit for multi-family residences to the projected new units. Water demand for low-income housing is included in future water demand projections at Town buildout.

4.6 Climate Change

Winters with decreasing snowpack or increasing rain on snow events along with longer and warmer growing season months will affect the water supply reliability for Mammoth Lakes. An in-depth discussion on climate change is included in Chapter 3, 3.3.1.

A prolonged drought in California during 2007-2009 resulted in a statewide proclamation of drought emergency and the Water Conservation Act of 2009, SB X7-7 (Act). This Act required a statewide 20% reduction in urban per capita water use by December 31, 2020. UWMPs were identified as a vehicle to assist the state in achieving this goal by providing an urban water supplier's baseline daily per capita water use and 20% reduction targets. This chapter reviews data provided in the 2010 and 2015 UWMP and checks whether MCWD met the 2020 20% reduction in water demand in 2025.

5.1 Baseline Periods and Targets

This 2025 UWMP reviews specific water use metrics reported in MCWD's 2010, 2015, and 2020 UWMP to support the State's target of a 20% reduction in average per capita daily water demand by 2020. Key water use metrics for meeting the Act's requirements include the *base daily per capita water use,* the *compliance daily per capita use,* and the *interim per capita water use target*.

The base daily per capita water use was developed using a 10- and 5-year continuous record of water demand (MCWD records) and service area population (US Census data and DOF estimates) and is shown in Table 5-1. This data was then used to determine a base daily per capita water use, measured in gallons per capita per day (GPCD). Several methods were available to determine the compliance daily per capita use, or the 2020 target. In the 2010 and the 2015 UWMPs, MCWD chose to apply Method 1, a 20% reduction of the 10-year average GPCD or a 5% reduction from the 5-year record, whichever is lowest. The result for MCWD's base daily per capita water use is 181 GPCD. This result is higher than reported in the 2010 UWMP. Baseline population numbers used to develop the compliance target in the 2010 UWMP were decreased based on updated peak population estimates from the Town of Mammoth Lakes (Town). Changes to the base daily per capita water use resulted in developing new compliance targets. The 2015 interim per capita water use target was 163 GPCD and the 2020 compliance daily per capita water use is 145 GPCD, see Table 5-2 Baseline and Compliance Targets. MCWD met the 2015 interim per capita water use target with a GPCD use of 94.

Table 5-1 Base Daily Per Capita Water Use

	Year	Effective Annual Population	Average Daily System Gross Water Use (mgd)	Annual Average Daily per Capita Water Use (GPCD)
1	2001	15,010	3.0	203
2	2002	15,200	3.2	209
3	2003	15,391	3.1	200
4	2004	15,479	2.9	189
5	2005	15,566	3.1	196
6	2006	15,591	2.8	177
7	2007	15,695	2.9	185
8	2008	15,706	2.7	170
9	2009	15,720	2.3	148
10	2010	15,808	2.1	136
10-year average annual daily per capita water use				181
Compliance Use Target - 80% of average annual daily per capita water use (target GPCD for 2020)				145
5- year average annual daily per capita water use				163

The ten-year baseline demonstrates a steadily declining per capita water demand. Per capita water use declined approximately 33% over the baseline period due to a combination of a 70% decrease in water distribution system losses and demand management (conservation) measures. Between 2010 and 2015, per capita water demand dropped 29%. Based on the compliance methodology established by DWR, the District met the 2015 interim daily per capita water use target.

The baseline data applies gross water use as all treated and raw water delivered to customers and water losses in the distribution system. Water treatment plant process water losses (such as filter backwash) and recycled water used for irrigation are excluded from gross water use. Gross water production and use data was developed from effluent meters at the District's four water treatment facilities, meters on production wells supplying raw water for direct distribution to irrigation users, and customer meter billing data.

Population data for this analysis relied on federal census data and estimates developed by the State of California Department of Finance for non-census years, Town peak population estimates, and transient occupancy rates. Since 2015 visitation to the service area increased, resulting in modification to the equation utilized to determine the service area's "effective population" A detailed discussion of population is provided in Section 3.4, Service Area Population and Demographics.

Table 5-2 Baseline and Compliance Targets

Submittal Table 5-1 Retail: SB X7-7 2020 Target Progress **Water Code Section 10608.40**						
☐	**Check the box if the Supplier was not an Urban Water Supplier during or before the 2020 UWMP reporting cycle. Proceed to the next table.**					
Was Supplier part of a merger or consolidation since 2020?	Regional Alliance Target or Individual Target? Drop down list	2020 Target	Actual 2020 GPCD	Did Supplier Achieve Targeted Reduction for 2020?	**Only for suppliers that did not meet the Target in 2020** **See DWR NOTES below.**	
					Actual 2025 GPCD (From SB X7-7 Compliance Form)	Did Supplier meet the 2020 Target in 2025?
No	Individual Target	145	94	Yes	118	Yes

(DWR Table 5-1 and 5-2, revised)

1. The average baselines reported in this UWMP are higher than reported in the 2010 UWMP because effective population was revised downward based on the Town's reevaluation of calculating peak population estimates.

5.2 Reporting on Compliance with 2020 Target

In 2025, MCWD met the 145 GPCD 2020 compliance target with a GPCD use of 118. The District will continue its demand management and conservation efforts as an integral part of its water supply strategy to ensure future per capita water use remains below the compliance daily per capita use of 145 GPCD.

Chapter 6 NORMAL -YEAR WATER SUPPLY CHARACTERIZATION

This chapter describes and quantifies the existing sources of water available to MCWD. It describes each water source, source limitations, and water quality issues associated with those sources. In addition, there is a discussion of future water development opportunities. Available water quantities described in this chapter reflect average year conditions. Chapter 7 includes discussions on water supply reliability under a normal year, single-dry, and five-consecutive dry year scenarios. Planning for water shortage conditions is described in the Water Shortage Contingency Plan (Chapter 8).

6.1 Water Supply Analysis Overview

The District supplies water for municipal purposes only. All of MCWD's water resources are located in the Mammoth Basin. Existing sources of water include surface water, groundwater, and recycled water. Savings from water conservation (demand management) measures is important. Each year, winter precipitation received and stored as snow in the Lakes Basin provides MCWD's surface water resources as the weather warms. Surface water supply is stored and diverted from Mammoth Creek at Lake Mary. Lake Mary is relatively small with a storage capacity of about 606 acre-feet (AF). Because of this storage limitation, high spring runoff flows typically cannot be fully utilized as allowed under MCWD's water right permit and licenses because of capacity limits at the treatment plant and due to the fact that runoff generally occurs prior to the irrigation season when demand is relatively low. The groundwater aquifer pumped by MCWD wells is used to augment surface water supplies.

MCWD also reclaims and treats wastewater to Title 22 standards and supplies the recycled water for golf course irrigation and construction purposes. Use of recycled water for irrigation began in 2010. The recycled water program directly replaces raw water demand from the groundwater aquifer that would be used for irrigation. Sierra Star, an 18-hole golf course, began irrigating with recycled water in late 2010. Snowcreek, a 9-hole golf course, started irrigating with recycled water in 2016. The seasonal trucked recycled water program was expanded in May 2023, allowing permittees access to a recycled water filling station at the District's campus during regular business hours for use outside the District's Service Boundary.

Figure 6-1 Monthly Mix of Water Supplies Utilized 2016-2020 and Figure 6-2 Monthly Mix of Water Supplies Utilized 2021-2025 illustrate the conjunctive management of water resources practiced by MCWD to balance supplies under varying hydrologic conditions. Surface water supply is normally maximized first due to its high quality and low production costs. Groundwater supply is then used to meet the remaining demands. Recycled water supplies a large portion of the golf course irrigation. Comparison of these two 5-year periods demonstrates how drastically water source utilization can vary based on the water year's snowpack and resulting surface water availability.

Mammoth Creek surface water quality is generally excellent, and requires minimal treatment (dual media filtration, chlorination, and corrosion control).

Groundwater quality issues include naturally occurring high levels of minerals such as iron, manganese, and arsenic. MCWD groundwater treatment plants allow full production (based on raw water supply from wells) that meets all water quality standards. Secondary water quality issues based on color, odor, and elevated temperature occur with several infrequently used wells, and are minimized by treating and blending with the higher quality groundwater from the remaining wells. These water quality issues are

due to naturally occurring conditions related to the volcanic geology in portions of the Mammoth Groundwater Basin.

Starting in 2007, the District embarked on an $8 million capital improvement project for corrosion control to raise the pH of both surface water and groundwater supplies to meet the Lead and Copper Rule monitoring compliance. The program has been operational since 2015 and working as designed.

Figure 6-1 Monthly Mix of Water Supplies Utilized 2016-2020

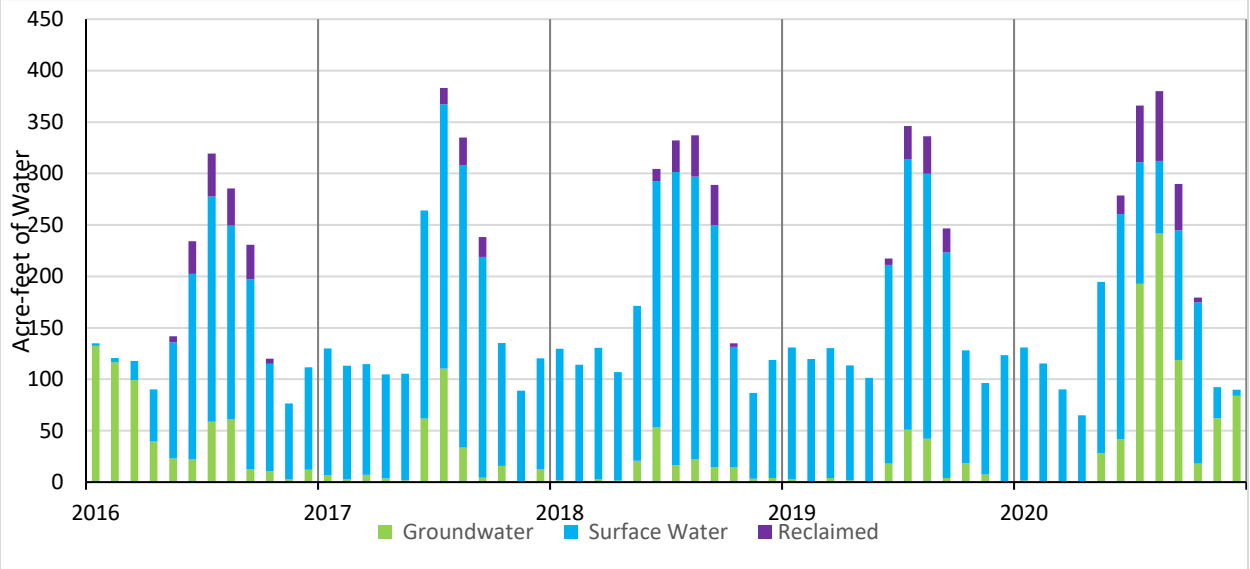
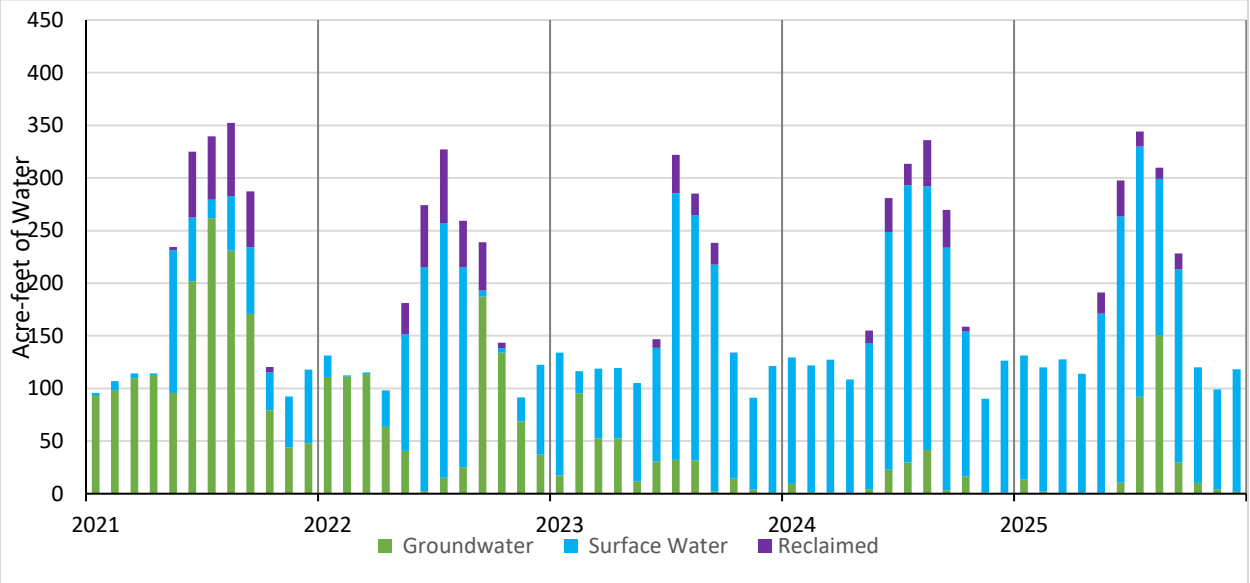


Figure 6-2 Monthly Mix of Water Supplies Utilized 2021-2025



6.2 Water Supply Characterization

6.2.1 Purchased or Imported Water

The District does not purchase or import water. Furthermore, there are no feasible opportunities for purchased or imported water identified because of MCWD's isolated location and elevation.

6.2.2 Groundwater

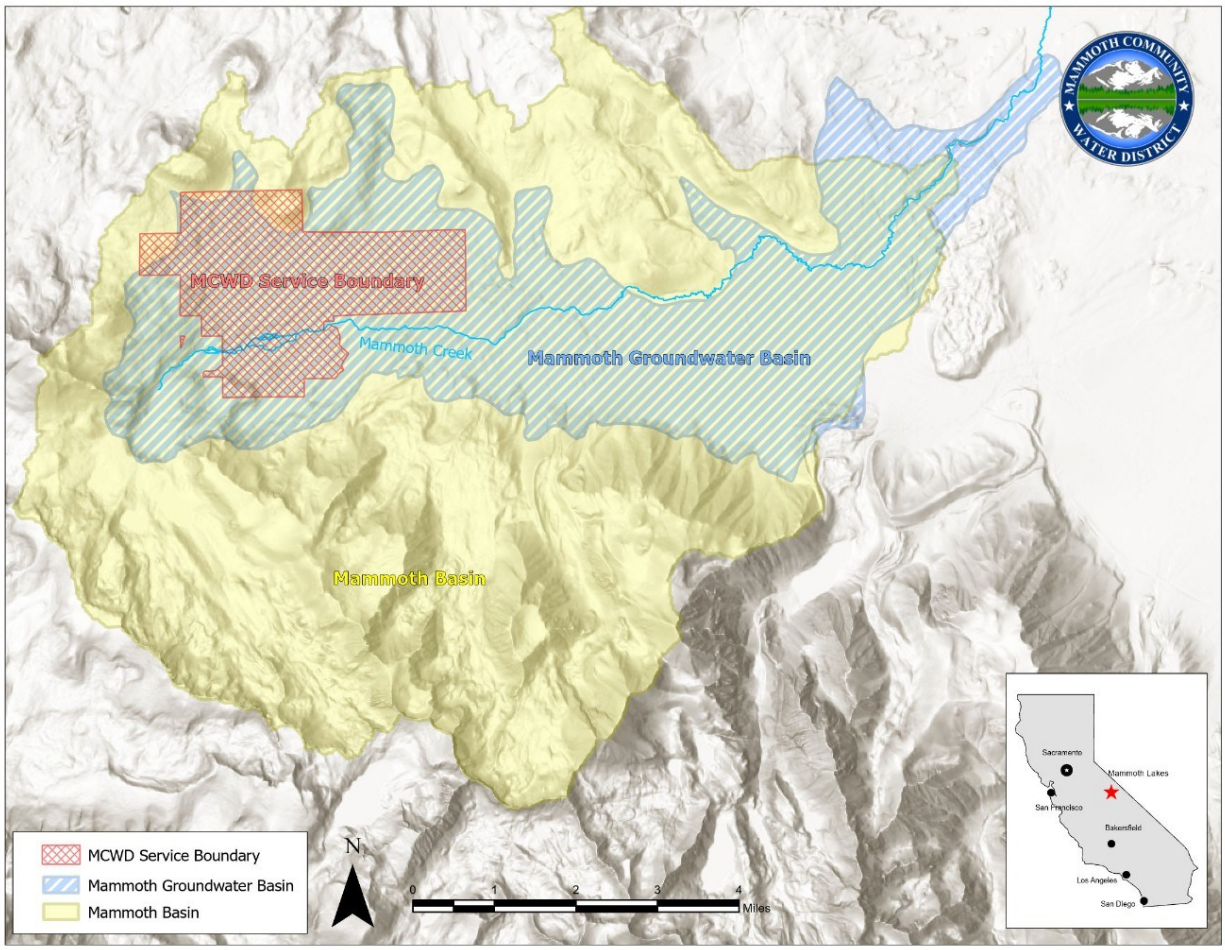
MCWD utilizes groundwater from nine production wells in the Mammoth Basin to supplement its primary surface water supply. Thus, annual groundwater production is based on the difference between annual service area demands and surface water availability. Groundwater supply can be limited by the capacity of the District's nine wells, groundwater level drawdown impacts on well production, and the ability of the two GWTPs to effectively treat and remove naturally occurring drinking water contaminants such as arsenic, iron and manganese.

If surface water becomes less available, MCWD relies on groundwater production to provide an increasing percentage of the community's water supply (see Figure 6-1 and 6-2). The District pumped a total of 3,251 AF of groundwater, including potable and raw, between 2021 and 2025, averaging 650 AF per year. During this period, the region experienced two dry years (2021 & 2022), one wet year (2023) and two normal years (2024 & 2025), and averaged 28 new customers per year. To illustrate the variation in water source utilization between 2011 and 2015, a considerably drier period, the District pumped a total of 6,502 AF, an average of 1,297 AF per year.

6.2.2.1 Basin Description

The Mammoth Basin and local groundwater basin are shown in Figure 6-3. The Mammoth Basin is formed by elevated areas on the north and west that are comprised largely of extrusive igneous rocks; a central trough filled with alluvial and glacial debris; and an abrupt southern flank of igneous intrusive and metamorphic rocks. The central trough area opens and drains to the east to the Owens River and Lake Crowley. Mammoth Basin is the watershed of Mammoth Creek and is bounded on the south by the drainage divide of Convict Creek; on the west, by Mammoth Crest; on the north by the drainage divide of Dry Creek; and on the east extending along the watershed of Hot Creek.

Figure 6-3 Map of the Mammoth Basin and Mammoth Groundwater Basin



The Mammoth Basin has not been adjudicated, nor has it been identified by DWR as being overdrafted. The District is the primary user of groundwater for municipal and domestic purposes. There are a few private wells serving specific users such as the Mammoth-Yosemite Airport, which are outside of the District service area. By far the largest quantity of groundwater pumped in the Mammoth Basin is for geothermal power generation by Ormat Corporation at the Casa Diablo geothermal power plant complex. Ormat does not release data to the public on its groundwater (geothermal brine) pumping, brine re-injection operations, or related monitoring well data.

The complex geology, hydrology, and hydrogeology of the area appear to have developed multiple groundwater systems in the Mammoth groundwater basin (WEI 2003). The WEI report describes the presence of two distinct aquifer systems in the area where the District produces water. District production wells tap the deep system, consisting of fractured basalts and other water yielding rock, which is highly responsive to District groundwater production, but can respond slowly to recharge.

A shallow and generally highly transmissive system of glacial till and alluvium with interbedded volcanics lies over the deep system and seems to range from less than 100 feet to 200 feet in total thickness. This hydrostratigraphic layer consists of four distinct geologic units identified as: quaternary alluvial deposits comprised of clay, silts, sand, and cobbles; quaternary lake (lacustrine) deposits comprised mostly of

unconsolidated fine-grained sediments that are of low permeability; quaternary glacial deposits within the Mammoth Basin tend to be slightly to moderately consolidated and consist of clay to boulder size glacial debris; and quaternary and tertiary igneous rock consist of lava flows, breccias, and tuffs interbedded with glacial debris. The District's groundwater studies, modeling, and monitoring do not address the deeper geothermal aquifer layer where Ormat's pumping and reinjection operations occur. Ormat does not provide information to the public on its modeling for independent, public resource agency review.

Ormat's Casa Diablo IV geothermal expansion project has extended geothermal extraction wells closer in proximity to the District's groundwater production wells and extract upwards of 29,000 AF of geothermal water annually. The District is concerned about potential threats to its groundwater wells from this project due to data provided by USGS which indicates some degree of intermingling of groundwater and geothermal water. In response, the District worked with BLM, USGS, GBAPCD, and Ormat to develop a Groundwater Monitoring Response Plan (GRMP) and meet quarterly to review and discuss monitoring data. Three monitoring wells were added to the GRMP in 2025. BLM completed one shallow monitoring well in January 2021 and developed another deep monitoring well in May 2021. The third monitoring well was drilled by the District in 2021.

6.2.2.2 Multiple Groundwater Basins

The District does not have multiple groundwater basins.

6.2.2.3 Other Considerations - Groundwater Management

The District maintains an extensive groundwater and surface water monitoring system to ensure sustainable management of the basin's water resources. The monitoring wells and production wells are shown in Figure 6-4 MCWD Production and Monitoring Wells. Groundwater levels are monitored in nine production wells and 21 shallow and deep monitoring wells. The data from these wells are used to produce an annual groundwater monitoring report that provides an evaluation of groundwater use, groundwater level trends, surface flows, and water quality. These annual reports have concluded that groundwater pumping has not had a detectable impact on surface water features such as Mammoth Creek or the springs at the U.C. Valentine Reserve. In addition, the District provides groundwater data to Mono County under the State's California Statewide Groundwater Elevation Monitoring (CASGEM) program.

The District adopted a Groundwater Management Plan (GWMP) in 2005, available to download at https://inyo-monowater.org/resources/library/. The GWMP was intended to inform future water resource planning and management efforts in the Mammoth Basin and met the requirements of AB-3030. Development of the GWMP involved numerous local government agencies and private entities. The GWMP includes a monitoring and operation plan for the long-term use of local groundwater resources. A Local Groundwater Assistance grant from the California Department of Water Resources in 2004 provided funding to complete the GWMP, expand the groundwater monitoring program, and assist in the development of a groundwater model.

In 2009, the District developed a groundwater simulation model for the Mammoth Basin (WEI 2009). The model incorporates the primary hydrologic and hydrogeologic features of the Mammoth Basin and District groundwater infrastructure and operations. It is used to simulate and evaluate current and future groundwater pumping scenarios, for determining sustainable groundwater use levels. The model development, calibration, and initial long-term projections are presented in the 2009 study. The model's

hydrology was updated in 2016 for analysis conducted for the 2015 UWMP. In 2025, the District contracted with a geotechnical company to assess the existing groundwater infrastructure to determine future needs. The study will help the District identify the condition of the aquifer in relation to existing groundwater production wells. The project is underway as of 2026 and anticipated to be completed for the 2030 UWMP.

Groundwater modeling results based on the historical record of Mammoth Pass snow water content indicate that the District's current and future groundwater production is generally sustainable, under conjunctive management of both surface, groundwater, and recycled water supplies. In years with average and higher than average surface water supplies, groundwater production is reduced and natural recharge is increased, leading to replenishment of the groundwater basin. A discussion regarding the reliability of the water supply under a single-dry year and five-consecutive dry years can be found in Chapter 7 and in the District's Drought Risk Assessment.

6.2.2.4 Past Five Years

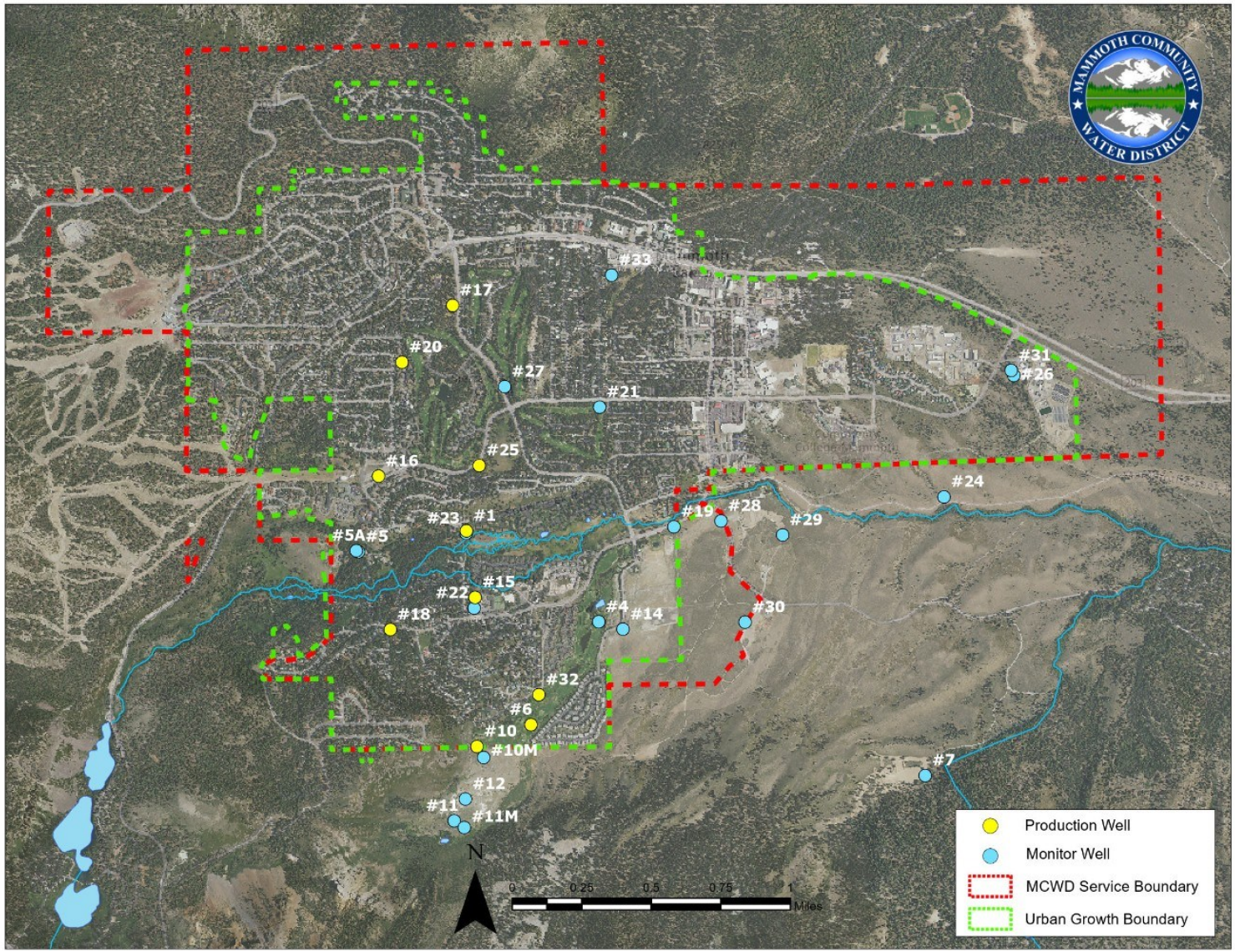
As described previously, groundwater resources are utilized when surface supplies are not available to meet demand. The variability of groundwater production can be seen in Table 6-1. April 1st snow water content at Mammoth Pass from 2021 through 2025 was 63%, 56%, 244%, 107%, and 88% of normal, respectively (Mammoth Pass (LADWP), https://www.ladwp.com/who-we-are/water-system/los-angeles-aqueduct/la-aqueduct-conditions-reports).

Table 6-1 Groundwater Volume Pumped - Mammoth Basin Groundwater (AF)

Groundwater Type	Location or Basin Name	2021	2022	2023	2024	2025
Fractured Rock	Mammoth Basin	1546	909	345	132	317
NOTES: Total annual pumped groundwater is the total metered flow from all groundwater pumps. Water samples, water line flushing, backwashing water treatment filters, and water for water quality studies are included in totals. Years 2021 & 2022 were considered dry years, while 2023 was a wet year, and 2024 & 2025 were normal years.						

DWR Table 6-1

Figure 6-4 MCWD Production and Monitoring Wells



6.2.3 Surface Water

The District utilizes surface water as the primary water source when available because it requires less energy to divert and deliver and requires less chemical treatment. The elevation at the Lake Mary Water Treatment Plant allows water to flow by gravity to almost the entire distribution system. The treatment plant is located about 1,000 feet higher in elevation and about 3 miles west of town. Lake surface water levels and stream flow rates are monitored at twelve locations throughout the Mammoth Basin watershed. This monitoring data is provided monthly to the SWRCB as a compliance measure contained in the District's water permit and licenses.

The District has two water right licenses, 5715 and 12593, and one permit, 17332, issued by the SWRCB, which entitle the District to both store and divert Mammoth Creek surface water at Lake Mary. The licenses and permit specify limits and conditions on the storage and diversion of surface water that are intended to sustain a healthy Mammoth Creek fishery and support recreational uses at Lake Mary. Diversion of surface water is conditioned on a maximum storage quantity, timing of diversions to storage, maximum seasonal drawdown levels at Lake Mary, and meeting the fish flows requirements as shown below in Table 6-2.

Table 6-2 Required Fishery Stream Flows at Old Mammoth Road Gauge

Month	Mean Daily Flow
January	6.4 cfs
February	6.0 cfs
March	7.8 cfs
April	9.8 cfs
May	18.7 cfs
June	20.8 cfs
July	9.9 cfs
August	7.2 cfs
September	5.5 cfs
October	5.5 cfs
November	5.9 cfs
December	5.9 cfs

**cfs – cubic feet per second*

MCWD's licenses and permit allow an annual maximum of 2,760 AF of surface water diversion. However, actual diversions are typically significantly lower. This is due to natural variability in snowpack runoff quantity and timing, limited storage to manage the variable runoff, mismatch between the seasonal trends in supply availability and community water demands, and compliance with the monthly minimum Mammoth Creek fishery bypass-flow requirements. For example, between the years 2021 –

2025, the District diverted an average of 1,332 AF per year, which was approximately 62% of the total domestic supply. Figure 6-2 Monthly Mix of Water Supplies Utilized 2021-2025, above, demonstrates the conjunctive management of water resources as surface water supplies fluctuate.

6.2.4 Stormwater

MCWD does not have a program to collect stormwater to meet local water supply demands. The Town of Mammoth Lakes is responsible for stormwater management.

6.2.5 Wastewater and Recycled Water

MCWD is the only collection and treatment facility for wastewater in the Mammoth Basin. This includes wastewater generated in the Town of Mammoth Lakes, USFS campgrounds, and USFS permittees in the Mammoth Lakes Basin with the exception of 10 private cabins on the south end of Lake George. No other sources of wastewater are available for reclamation in the Mammoth Basin.

6.2.5.1 Recycled Water Coordination

The District is the only agency in the Basin collecting wastewater and providing recycled water. The District coordinates regularly with local agencies, including TOML, Mono County, and USFS.

6.2.5.2 Wastewater Collection, Treatment and Disposal

Wastewater is collected at the MCWD Wastewater Treatment Plant (WWTP) located at the MCWD main facility. The WWTP has a design average daily flow of 4.1 million gallons. It treats wastewater through preliminary, primary, and secondary treatment processes and discharges disinfected secondary 2.2-treated effluent for disposal at Laurel Pond, which is located approximately 5 ½ miles southeast of Mammoth Lakes on USFS land. Laurel Pond is a terminal surface water feature that, prior to initiation of treated effluent discharge, dried up during sustained drought periods. MCWD has an obligation to maintain a minimum of 18 acres of water surface area at Laurel Pond as a mitigation measure for the recycled water project. During the summer months, the District also delivers disinfected tertiary recycled water to two local golf courses and a trucked recycled water program for construction use. Table 6-3 Wastewater Treatment and Discharge in shows 1,636 AF of wastewater was treated by MCWD in 2025. The slight mismatch between the total wastewater treated and the sum of discharged treated wastewater and recycled water used in the service area is caused by the timing of treatment between two different calendar years (Christmas/New Year's holidays) when holding basins are used to even out flows to the WWTP. Golf course irrigation and construction uses utilized 105 AF of tertiary treated wastewater and 1,393 AF of secondary, disinfected treated wastewater was discharged to Laurel Pond. The tertiary water that was not distributed in the service area was lost due to evaporation or was pumped back to the WWTP.

Table 6-3 Wastewater Treatment and Discharge in 2025 (AF)

Treatment Level	WW Treated	Discharged to Laurel Pond	Recycled w/in Service Area
Tertiary	NA	-	94
Secondary, Disinfected	NA	1,393	11
Total	1,636	1,393	105

(DWR Table 6-3 revised)

6.2.5.3 Recycled Water System Description

Improvements at the wastewater treatment plant and installation of the recycled water distribution system allowed the first delivery of recycled water to begin in 2010. Treated wastewater is also utilized for construction water, and is provided at no charge via a filling station at the wastewater treatment plant. The MCWD recycled water facility is designed to treat about 1.55 million gallons per day of effluent. To deliver recycled water for irrigation, the plant has a 1.5 million gallon on-site storage reservoir, a pump station to deliver water, and two, 2-mile long, recycled water distribution lines.

MCWD has made significant progress on its recycled water program. In 2007, the District's Board of Directors certified the EIR for the recycled distribution system. In 2009, WWTP improvements necessary to produce treated water that met the State's Title 22 standards were completed and the Lahontan Regional Water Quality Control Board issued a master permit to the District for recycled water supply within the District's service area. Construction of the distribution system pump stations and pipelines to serve the Sierra Star and Snowcreek golf courses was completed in 2010. Sierra Star Golf Course completed the on-site work to comply with Title 22 regulations and began using recycled water for irrigation in late summer 2010. A recycled water service agreement between the Sierra Star Golf Course and MCWD provides for an annual maximum of 320 AF of recycled water delivery during the irrigation season.

Snowcreek Golf Course, a 9-hole golf course, was anticipated to begin receiving recycled water for irrigation use in 2012. However, this project fell behind schedule and the golf course did not begin receiving recycled water until the 2016 irrigation season. MCWD provided financial incentives, in the form of a construction loan, to Snowcreek to construct a recycled water storage pond for irrigation. The recycled water agreement with Snowcreek provides up to 320 AF of recycled water for the current course and a future expansion of the course to 18 holes and for the development of a resort community. The schedule to complete the additional development projects is at the landowner/developer's discretion and is beyond the authority of MCWD. For the purposes of establishing future projections, an assumption for expansion was estimated to be in year 2035.

Table 6-4 2020 UWMP Recycled Water Use Projection Compared to 2025 Actual (AF)

Use Type	2020 Projection for 2025	2025 Actual Use
Golf Course Irrigation	157	94
Other (Trucked)	3	11
Total	160	105

{DWR Table 6-5 revised}

6.2.5.4 Potential, Current, and Projected Recycled Water

The District began studying the feasibility of a recycled water system in 1987 (Brown and Caldwell 1987). The study objective was to determine the economic feasibility and financial viability of recycling wastewater and/or sub-potable groundwater. Uses of recycled water analyzed included landscape and agricultural irrigation, industrial process water, and water used for recreational purposes. The study concluded that the only feasible use of recycled water was for restricted landscape irrigation. MCWD evaluated the uses of reclaimed water again in a 1991 Feasibility Study of Alternative Sources of Water

Supply and Methods of Reducing Demand (Boyle Engineering Corp 1992). It was reaffirmed that restricted landscape irrigation uses, such as golf course irrigation, were the most feasible use of recycled water. Irrigation places a major demand on water supply during the late spring and summer seasons, with peak season demands three to four times the annual average demand.

Currently, recycled water produced by MCWD is fully committed and no future customers are anticipated. The District has agreements with the two golf courses in the service area: Sierra Star, an 18-hole course and Snowcreek, currently 9 holes with a planned 9-hole expansion. Developing additional uses of recycled water is limited by the availability of seasonal storage. The highest production potential for recycled water occurs during the winter season when transient population and related wastewater generation peaks, while the highest demand for recycled water occurs during the summer irrigation season. In addition, the production of recycled water can be challenging due to extreme variations in flow from the transient population along with fats, oil, grease and industrial waste entering the WWTP.

Table 6-5 Current and Projected Recycled Water Direct Beneficial Uses Within Service Area (AF)

Use Type	Potable or Non-Potable	Actual Use	Projected Use				
		2025	2030	2035	2040	2045	2050
Golf Course Irrigation	Non-Potable	94.6	152.1	211.8	211.8	211.8	211.8
Trucked Recycled Water	Non-Potable	10.8	6.4	6.4	6.4	6.4	6.4
Total		105.4	158.5	218.2	218.2	218.2	218.2

{DWR Table 6-4 revised}

6.2.5.5 Actions to Encourage and Optimize Future Recycled Water Use

Due to supply/storage limitations, there are no plans to encourage future recycled water use. Recycled water is currently optimized in the system.

6.2.6 Desalinated Water Opportunities

The District does not have brackish or saline water resource available for potential development.

6.2.7 Exchanges or Transfers

The District conducted a feasibility study of alternative sources of water supply in 1992 that included an analysis of several exchange or transfer opportunities (Boyle Engineering Corp 1992). The study analyzed the use of reclaimed wastewater for irrigation in the Laurel Creek and lower Mammoth Creek areas in exchange for local surface water supply, groundwater acquisition in adjacent watersheds and exchange/transfer options, and Central Valley supply acquisition/transfer/exchange opportunities. The study determined that no feasible transfer opportunities existed. The geographic isolation of the Mammoth Basin is a significant limitation on feasible water transfer opportunities.

6.2.7.1 Exchanges

No feasible exchange opportunities exist.

6.2.7.2 Transfers

No feasible transfer opportunities exist.

6.2.7.3 Emergency Interties

No emergency intertie opportunities exist.

6.2.8 Future Water Projects

The District's newest production well, Well 32, was put online in 2025. This well serves as a redundant well for rotational pumping management schemes
shown on Figure 6.2 MCWD Monitoring and Production Wells. This new production well helps to increase the reliability of water supplies by expanding the number of wells available for rotational pumping management. In 2015, rotational pumping was critical when surface water supplies were unavailable and heavy pumping contributed to temporary mechanical failures.
The District is also in the process of procuring sites for additional groundwater exploration and production well development.

6.2.9 Summary of Existing and Planned Sources of Water

Existing sources of water include surface water, groundwater, recycled water, and savings from water conservation (demand management) measures. The District stores and diverts Mammoth Creek surface water at Lake Mary. Groundwater supply comes from nine production wells within the Mammoth groundwater basin. Recycled water meeting Title 22 standards for unrestricted irrigation is produced by MCWD. Delivery of recycled water use began in 2010. Table 6-6 Water Supplies – Actual 202 below, presents the water supply sources utilized by MCWD.

The surface water supply estimates in Table 6-7 Water Supplies – Projected are based on the 75-year history of snow water content at Mammoth Pass on April 1 and eight years of MCWD diversion records (WEI 2016). When surface water is available, MCWD's annual surface water diversions are typically less than permitted and licensed by the SWRCB because of the mismatch between the height of runoff in early spring and the height of customer demand in mid-summer. Surface water supply projections, included in this UWMP, assume that early spring demand will increase as the Town's population increases. This higher spring demand will allow higher annual utilization of surface water supplies.

The Mammoth Basin Groundwater Model developed in 2009 (WEI 2009) was used to determine whether the groundwater supply would be sustainable for the UWMP 20-year planning horizon. WEI (2016) extended the hydrology contained in the model to December 2015 to provide updated estimates of initial conditions for groundwater model projections. The District is conducting a comprehensive lifecycle assessment of its existing groundwater infrastructure. This initiative will enhance understanding of aquifer health conditions and inform long-term groundwater resource planning. Information gained will be included in the 2030 UWMP and used for projecting supply. The groundwater production estimates within this report are the difference between projected surface and recycled water supplies and projected demand. All groundwater supplies will continue to be produced from the Mammoth Groundwater Basin.

The recycled water quantities in Table 6-6 reflect the existing and planned increased use at the Sierra Star and Snowcreek golf courses. All recycled water supplies will be produced from MCWD's WWTP.

Assumptions in the supply conclusions are:

- Climate change could adversely affect the availability of water resources. Timing of precipitation events and runoff patterns may be altered and the annual water content of the snowpack may decrease, but there is uncertainty about how these changes may or may not affect water supply.

- The current array of groundwater production wells will maintain their production capacity.
- Increases in water demand will occur during the period of high creek flows allowing higher utilization of surface water supplies.

6.2.9.1 Description of Supplies

As previously stated, surface water is the preferred source of potable water due to its high quality and low production cost. However, storage is limited and diversions are regulated by SWRCB license and permit conditions. Because of this storage limitation, high spring runoff flows typically cannot be fully utilized as allowed under MCWD's water right permit and licenses. When necessary, MCWD uses the groundwater aquifer wells to augment surface water supplies. These wells can take one to two years to respond to recharge from previous years' runoff conditions. MCWD also utilizes reclaimed water treated to Title 22 standards whenever available for golf course irrigation.

6.2.9.2 Quantifications of Supplies

Table 6-6 Water Supplies – Actual 202 displays the water supplied in 2025 per water source. Table 6-7 Water Supplies – Projected below displays the amounts of water from each supply category projected to be used through 2040.

Table 6-6 Water Supplies – Actual 2025 (AF)

Water Source	Acre-Feet Used 2025
Surface water (not desalinated)	1,789
Groundwater (not desalinated)	318
Recycled Water	94
Total	2,107

{DWR Table 6-8 revised}

Table 6-7 Water Supplies – Projected (AF)

Water Supply	Potable or Non-Potable	2030	2035	2040	2045
Surface water (not desalinated)	Potable	1517	1,630	1743	1856
Groundwater (not desalinated)	Potable	1041	1,197	1353	1509
Recycled Water	Non-Potable	158.5	218	218.2	218.2
Raw Water	Non-Potable	65.19	91	90.78	90.78
Subtotal Potable		2558	2,827	3096	3365
Subtotal Non-Potable		223.69	309	308.98	308.98
Total		2781.69	3,136	3404.98	3673.98

{DWR Table 6-9 revised}

1. Raw water is untreated groundwater used for irrigation.

6.2.10 Special Conditions

6.2.10.1 Climate Change Effects

Climate change induced temperature increases will accelerate the timing of snowpack melting and runoff, and may increase water demands due to longer irrigation seasons and higher temperatures. In

addition, MCWD's water supplies may be vulnerable to greater sediment loads from flood events and higher temperatures that may degrade water quality. MCWD's surface water resource is replenished annually by the snowpack in the Sierra Nevada Mountains. The District's water supply in any given year is dependent on winter season precipitation, primarily snowfall, and the subsequent amount and rate of surface water runoff from snowpack within the watershed. Groundwater resources also respond to the precipitation received through recharge of the basin; however, the response time can take one to two years.

An in-depth explanation about Climate Change and MCWD preparedness can be found in Chapter 3.

6.2.10.2 Regulatory Conditions and Project Development

None identified for the area pertaining to MCWD.

6.2.10.3 Other Locally Applicable Criteria

None identified for the area pertaining to MCWD.

6.3 Energy Intensity

Energy demand to extract, treat, and supply water varies greatly depending on the source being utilized. Surface water, which is diverted from Mammoth Creek via Lake Mary, does not require any pumping to reach the water treatment plant and the distribution system. The water is treated to comply with the Surface Water Treatment Rule through direct filtration and disinfection, as well as pH adjustment for corrosion control to comply with the Lead and Copper Rule. The service area is approximately 1000 feet down-gradient from Lake Mary and therefore almost entirely pressurized by gravity when supplied by surface water. Conversely, groundwater sources are much more energy intensive and require electricity to extract the water and deliver it to the treatment facilities. The treatment process includes oxidation and filtration for the removal of iron, manganese, and arsenic to comply with primary and secondary drinking water standards. Additionally, air stripping is done to adjust pH for corrosion control to comply with the Lead and Copper Rule. After treatment, electrical energy must be used to pump groundwater into the distribution system to pressurize the system. For these reasons, energy demand to supply water varies greatly depending on availability of surface water. Rough estimates of electricity consumption at facilities are shown in Table 6-8 below. 2013 was a dry year following multiple dry years necessitating significant usage of groundwater wells, as opposed to 2025, a normal year following normal-wet years, allowing utilization of more surface water.

Table 6-8 Energy Demand Comparison for Water Supply Process 2013 vs. 2025

kWH Used for Operation		
Facility	**2013**	**2025**
Wells	1,072,242	278,476
Wells and Plant	1,753,670	684,758
Plants	850,707	477,580
Tanks and GW Plant	847,725	229,097
Tanks	133,555	112,437

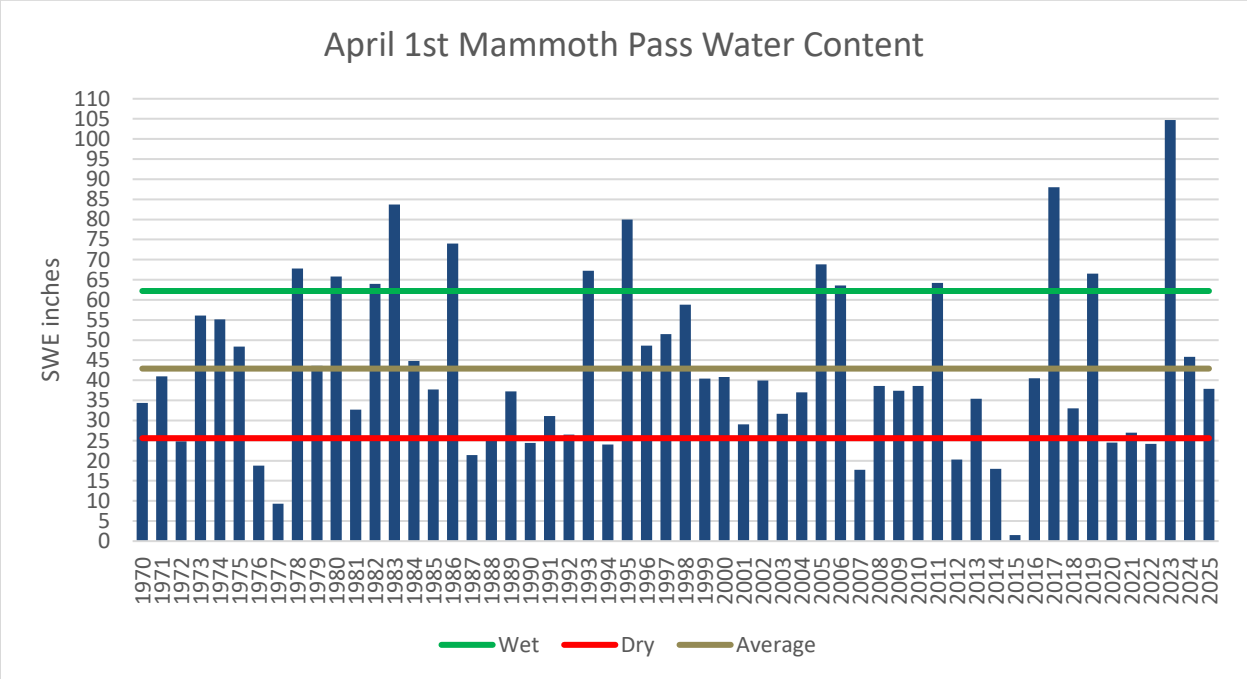
Chapter 7 WATER SERVICE RELIABILITY AND DROUGHT RISK ASSESSMENT

This chapter compares projected water supplies and service area demands over the 20-year planning horizon of the UWMP. It assesses the overall reliability of future supplies, including limitations to supplies and the impacts of drought and/or emergency conditions that severely curtail supply. Drought conditions considered include both a single dry year and a period of five consecutive dry years, based on hydrologic records for the Mammoth Basin.

7.1 Constraints on Water Sources

The quantity of MCWD's surface and groundwater supplies are limited by a number of factors. The most significant is the annual water content of the snowpack in the Mammoth Basin and the timing of the resulting surface water runoff. The District utilizes surface water as the primary water source when it is available because less energy and chemicals are required to divert, treat, and deliver water from the Lake Mary Water Treatment Plant, which can gravity feed to almost the entire District distribution system. As shown in Figure 7-1 April 1 Mammoth Pass Water Content 1970 – 2025, the annual snowpack water content conditions are highly variable.

Figure 7-1 April 1 Mammoth Pass Water Content 1970 – 2025



1. Source: CDEC Mammoth Pass USBR Gauge

In addition to environmental constraints on water supply, MCWD operates under water right restrictions contained in licenses and permit from the State Water Resources Control Board (SWRCB) and total usage is limited by a Settlement Agreement with the Los Angeles Department of Water and Power (LADWP). In May 2011, the District completed and certified an environmental impact report (EIR) on

fishery bypass flows for Mammoth Creek. Approval of this project and acceptance of the project terms by the SWRCB established, on a long-term basis, the fishery bypass flows and various other surface-water management requirements. The terms of diversion constraints contained in MCWD's water right licenses and permit are described in Table 7-1 Constraints on Water Supply. In addition, completion of the EIR required a Settlement Agreement between LADWP and MCWD imposing a limit on surface water diversions, groundwater extractions, and recycled water deliveries.

Table 7-1 Constraints on Water Supply

Water Supply Source	Limitation Quantification	Issue – Legal, Environmental, Water Quality, Climatic
Mammoth Creek Surface Water	Minimum diversion of 337 acre-feet under 1977 drought conditions. Maximum diversion of 2,670 ac-ft. under permit and license terms.	SWRCB water right permit 17332 and licenses 5715 and 12593: Requirements include ceasing diversions when creek flows are at or below specified mean daily fishery bypass flow rates that vary by month; diversion to Lake Mary storage limited to April 1 through July 1; seasonal storage drawdown is limited to 3 feet prior to September 15 without state and federal permission; maximum diversion to storage is limited to 606 acre-feet between April 1 – July 1 and 54 acre-feet between September 1 – September 30; maximum diversion rate limited to 5.0 cfs; total annual diversions are limited to a maximum of 2,760 acre-feet. Climate – Annual surface water supply is dependent on annual snowpack water content. Precipitation as rain and above normal temperatures can cause earlier and larger runoff rates that cannot be captured in Lake Mary's minor storage pool (606 acre-feet).
Groundwater Wells	Limitations on annual yield are variable and based on reaching specified depths to water for each well. No quantity restrictions are identified.	Groundwater production can be limited by decreases in pumping levels due to inter-annual hydrologic conditions, total pumping and treatment capacity, poor water quality, and mechanical failures. Decreased groundwater levels lower yield from each well. The nine wells and two treatment plants have a maximum capacity based on facility size and features. Poor water quality limits production from some wells due to high arsenic levels. Measures to maximize the groundwater supply within these constraints include use of variable speed drive motors, GWTP improvements for arsenic removal, rotational pumping, and conjunctive management of surface and groundwater supplies to minimize demands on the local aquifer.
Recycled water	640 acre-feet	The District has two recycled water agreements to deliver a total maximum of 640 acre-feet/year. Half of this amount depends on the construction of the Snowcreek Phase VIII development (golf course expansion, hotel, and housing). Production of the recycled water supply is constrained by a mismatch of highest wastewater flows in winter and highest demand in summer, highly fluctuating inflows over weekends and holidays, composition of the wastewater, and limited storage capacity.
Surface, ground and recycled water	4,387 acre-feet	An Agreement between LADWP and MCWD in 2010 to end litigation over water rights requires that surface water diversions, groundwater extractions and deliveries of recycled water to be limited to 4,387 acre-feet. This limit was considered adequate to meet the Town's projected buildout demand, water treatment plant processing water needs, and distribution losses using the best available data and information during negotiations.

Annual groundwater production is variable, depending on the current water year type (wet, dry, normal), and availability of the resource depends on the preceding one to two water years, which influence recharge trends and groundwater basin levels. Groundwater production can also be limited by water quality (ability to treat raw water to required standards), declining depth to water, and mechanical failures of pumps and motors. A new well, Well 32, provides additional redundancy in the system during mechanical failures and during periods of reduced production resulting from water quality concerns. The District is also in the process of procuring sites for other groundwater exploration and production well development. In addition to expanding groundwater resources, MCWD will continue to improve and enforce water conservation measures contained in its WSCP and to promote water efficiency through MCWD sponsored programs and collaboration with the Town's CEDD.

7.2 Water Service Reliability

The Mammoth Lakes community relies solely on local water resources for its water supply. The town is located in a rural and remote setting that would not allow easy access to other water agencies or groundwater basins for supplemental water. To ensure a reliable supply to the community, MCWD uses a mix of surface, groundwater and recycled water resources. The District is in the process of procuring sites for additional groundwater exploration and production well development. In the last ten years, MCWD has made significant progress in strengthening and enforcing water conservation regulations and improving infrastructure to reduce water demand. MCWD places a high priority on maximizing the effectiveness of the available water resources to ensure a sustainable long-term water supply for the community.

7.2.1 Types of Years

This section presents an assessment of MCWD's water supply and demand balance under three standard water supply conditions, a normal year, a single dry year, and a five-consecutive-year drought, for each of the five-year increments of the 20-year planning horizon. Service area demands and water supply are based on information presented in Chapters 4 and 6, respectively. The groundwater and surface water modeling tools and methods used to estimate these supplies are discussed in Chapter 6.

For this supply analysis, the normal year is represented by averaging Mammoth Pass hydrologic conditions from 1940 through 2015, the single dry year is represented by 2015 supply data, and the five-consecutive-year drought is represented by data from 2012 through 2015, with the assumption that conditions in 2015 were repeated, see Table 7-2 Basis of Water Year Data (Reliability Assessment). The volume of available water is influenced by the demand for the base years listed, except the Average Year used potable demand volumes from 2015 and the averaged raw and recycled demand from 1988 and 2015 (WEI 2016).

Table 7-2 Basis of Water Year Data (Reliability Assessment) (AF)

Water Year Type	Base Year	Volume Available	% of Average Supply
Average	1940-2015	2,068[1]	100
Single Dry Year	2015	1,955	95
Multiple Dry Years -	2013	1,989	96
Year 1	2014	1,959	95
Year 2	2015	1,955	95
Year 3	2015	1,955	95
Year 4			
Year 5	2015	1,955	95

{DWR 7-1}

1. Historical hydrology from Mammoth Pass. Water demand from 2015 potable demand and 1988 -2015 averaged raw and recycled water demand.

7.2.1.1 Water Service Reliability – Normal Year

The normal year is represented by averaging Mammoth Pass hydrologic conditions from 1940 through 2015. Level 0, permanent water conservation requirements, were assumed for the water demand.

Table 7-3 Retail: Normal Year Supply and Demand Comparison (AF)

	2030	2035	2040	2045
Supply totals	2,782	3,136	3,405	3,674
Use totals	2,288	2,613	2,948	3,282
Surplus/(shortfall)	494	523	457	392

{DWR 7-2}

7.2.1.2 Water Service Reliability – Single Dry Year

The single dry year is represented by 2015 supply data, the lowest water content of snowpack at Mammoth Pass since 1931, 2% of average. For the single dry year, Level 1 Water Conservation Level targets were assumed per the data and methodologies for determining water conservation levels as determined in the District's WSCP.

Table 7-4 Single Dry Year Supply and Demand Comparison (AF)

	2030	2035	2040	2045
Supply totals	2,643	2,979	3,235	3,490
Use totals	2,035	2,323	2,621	2,918
Surplus/(shortfall)	609	656	614	573

{DWR 7-3 revised}

7.2.1.1 Water Service Reliability – Five Consecutive Dry Years

For the five consecutive dry year scenario, the Level of Water Conservation was assumed per the data and methodologies for determining water conservation levels as determined in the District's WSCP. The

Water Conservation Level for each year is reported in the table below. Methodology for projections for the supply totals is described in 7.3.1.

Table 7-5 Multiple Dry Years Supply and Demand Comparison (AF)

Planning Horizon Year		2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	WSCP Level
First year	Supply totals	2,671	3,011	3,269	3,527	Level 0
	Use totals	2,543	2,903	3,276	3,647	
	Surplus/(shortfall)	128	108	-7	-120	
	WSCP - use reduction savings benefit	254	290	327	364	
	Revised Surplus/(shortfall)	**382**	**398**	**320**	**244**	
Second year	Supply totals	2,710	3,030	3,286	3,514	Level 1
	Use totals	2,615	2,978	3,350	3,721	
	Surplus/(shortfall)	95	53	-64	-207	
	WSCP - use reduction savings benefit	523	595	670	744	
	Revised Surplus/(shortfall)	**618**	**648**	**606**	**537**	
Third year	Supply totals	2,807	3,114	3,372	3,630	Level 2
	Use totals	2,678	3,052	3,424	3,795	
	Surplus/(shortfall)	129	62	-52	-165	
	WSCP - use reduction savings benefit	806	915	1,027	1,138	
	Revised Surplus/(shortfall)	**935**	**977**	**975**	**973**	
Fourth year	Supply totals	2,845	3,133	3,388	3,644	Level 3
	Use totals	2,759	3,127	3,498	3,869	
	Surplus/(shortfall)	86	6	-110	-225	
	WSCP - use reduction savings benefit	1,104	1,250	1,399	1,547	
	Revised Surplus/(shortfall)	**1,190**	**1,256**	**1,289**	**1,322**	
Fifth year	Supply totals	2,912	3,184	3,439	3,695	Level 4
	Use totals	2,831	3,201	3,573	3,943	
	Surplus/(shortfall)	81	-18	-134	-248	
	WSCP - use reduction savings benefit	1,415	1,600	1,786	1,972	
	Revised Surplus/(shortfall)	**1,496**	**1,582**	**1,652**	**1,724**	

{DWR 7-4 revised}

7.2.4 Description of Management Tools and Options

MCWD management decisions to ensure a reliable water supply may affect the supply volumes presented in any given year. Every year, MCWD staff reviews water supply conditions and potential operational constraints that may limit water production. Water Conservation Levels, as described in the WSCP attached as Appendix E, may be implemented to ensure reliable water supply. Operational changes are utilized to reduce the pressure on mechanical equipment when relying on high groundwater production, to enhance aquifer recovery, and to avoid the necessity of implementing more severe water restrictions in the near future.

7.3 Drought Risk Assessment

7.3.1 Data, Methods, and Basis for Water Shortage Conditions

Modeling completed for the District for development of the 2020 UWMP Water Supply Reliability Assessment was utilized for this 2025 UWMP. MCWD considered the supply and demand projections determined for the multiple-year drought to reflect conditions in the five-consecutive-dry year scenario.

Projected water supplies in the 2020 UWMP were through 2040. Because these projections were based on town buildout being accomplished in 2040, those projections have been extended to 2045. The General Plan for the town, last updated in 2019, states that it does not expect buildout to be reached by 2040. However, building trends between 2020-2025 were low to moderate, primarily driven by town housing projects therefore the District determined buildout is unexpected by 2040 and uses the 2045 date.

The previous Tables, 7.3 through 7.5, estimate water supply reliability for the UWMP 20-year planning horizon based on historical hydrology and demand presented in Table 7-2 under the three water supply conditions. Projections for future water demand and supply were reduced under the single dry year and five consecutive dry year scenarios, based on the Water Conservation Level implemented per the District's WSCP.

Modeling results provided in the tables above indicate a sustainable supply of water during the severe one-year and five-year-consecutive drought scenarios based on the hydrologic record. However, these results relied on a sequence of hydrological events that may not be repeated if warmer and drier conditions increase in frequency. Model projections for sustainability that reordered the sequence of hydrologic conditions to start with a long dry period, 1999 through 2015, followed by the 1957 through 1998 hydrology, resulted in some wells declining below sustainable production capacities during a multiple-year drought, with three years considered. Under this reordered scenario, in 2045, it should be expected that five of the wells would not be sustainable for 67%, 17%, 11%, 6%, and 1% of the year (WEI 2016).

The water supply projections presented assume that higher surface water supplies will be available as demand increases during months that frequently underutilize supply due to low demand.

The analysis used in the 2025 UWMP was extrapolated from the report completed by WEI in 2016 and the 2020 UWMP. A new water supply projection analysis will be added to the District's strategic plan to allow staff to revisit supply projections and make necessary shifts in capital improvement and program planning to ensure future water supply reliability.

7.3.1.1 Basis for Water Shortage Conditions

The Mammoth Community Water District relies on a mix of water supplies from surface water, groundwater and reclaimed water. There is no option to import water into the service area. The quantity of MCWD's supplies are/could be limited by a number of factors listed below:

Surface Water

- Annual water content of the snowpack in the Mammoth Basin
- Timing and quantity of the surface water runoff
- Water right restrictions contained in licenses and permits
- Storage capacity
- Maintenance of infrastructure
- Natural Disasters
- Contamination of supply

Groundwater

- Annual water content of the snowpack in the Mammoth Basin

- Soil moisture content
- Maintenance of infrastructure
- Natural Disasters
- Contamination of supply

Recycled Water

- Amount of wastewater entering into the treatment plant
- Storage capacity
- Maintenance of Infrastructure
- Wastewater treatment plant disruptions

April 1 is considered the start of the water year. Therefore, annually in the first two weeks of April, staff will assess the water content for the coming water year. The methodologies established below were developed based on the assumption that the following year will be a dry year. The District will assess water supply availability with the assumption that the following year will be a dry year.

The District has six standard water shortage stages. Level 0 (permanent water conservation requirements) is always in place as a prohibition against water waste. The 5 Water Conservation Levels that may be implemented to mandate reductions due to threatened or existing water supply shortages will be implemented per the data and methodologies described below.

Level 1 Water Supply Shortage

A Level 1 Water Supply Shortage Condition will be declared if one or more of the following conditions exist:

April 1 snow water content at Mammoth Pass is 60% or less.
April 1 snow water content at Mammoth Pass is 70% or less and the previous year's snow water content at Mammoth Pass was less than 60%.
April 1 snow water content at Mammoth Pass is 70% or less and the 3-year average snow water content at Mammoth Pass is less than 60%.
If the percentage of groundwater is predicted to be 75% or more of the overall water supply.
Required infrastructure maintenance is anticipated to cause an imbalance in projected supply and demand.
Water resources monitoring data indicates that aquifer recharge is insufficient and requires a 10% reduction in demand to promote recharge and prevent further drawdown.
A natural disaster or contamination of water supply has occurred that requires a 10% reduction in water demand.

Level 2 Water Supply Shortage

A Level 2 Water Supply Shortage Condition will be declared if one or more of the following conditions exist:

April 1 snow water content at Mammoth Pass is 50% or less.
April 1 snow water content at Mammoth Pass is 60% or less and the previous year's snow water content at Mammoth Pass was less than 50%.
April 1 snow water content at Mammoth Pass is 60% or less and the 3-year average snow water content at Mammoth Pass is less than 60%.
If the percentage of groundwater is predicted to be 80% or more of the overall water supply.
Required infrastructure maintenance is anticipated to cause an imbalance in projected supply and demand.

Water resources monitoring data indicates that aquifer recharge is insufficient and requires a 20% reduction in demand to promote recharge and prevent further drawdown.
A natural disaster or contamination of water supply has occurred that requires a 20% reduction in water demand.

Level 3 Water Supply Shortage

A Level 3 Water Supply Shortage Condition will be declared if one or more of the following conditions exist:

April 1 snow water content at Mammoth Pass is 30% or less.
April 1 snow water content at Mammoth Pass is 40% or less and the previous year's snow water content at Mammoth Pass was less than 50%.
April 1 snow water content at Mammoth Pass is 60% or less and the 3-year average snow water content at Mammoth Pass is less than 50%.
If the percentage of groundwater is predicted to be 85% or more of the overall water supply.
Required infrastructure maintenance is anticipated to cause an imbalance in projected supply and demand.
Water resources monitoring data indicates that aquifer recharge is insufficient and requires a 30% reduction in demand to promote recharge and prevent further drawdown.
A natural disaster or contamination of water supply as occurred that requires a 30% reduction in water demand.

Level 4 Water Supply Shortage

A Level 4 Water Supply Shortage Condition will be declared if one or more of the following conditions exist:

April 1 snow water content at Mammoth Pass is 10% or less.
April 1 snow water content at Mammoth Pass is 30% or less and the previous year's snow water content at Mammoth Pass was less than 20%.
April 1 snow water content at Mammoth Pass is 40% or less and the 3-year average snow water content at Mammoth Pass is less than 50%.
If the percentage of groundwater is predicted to be 90% or more of the overall water supply and aquifer levels dictate that a 40% reduction of typical demand is necessary to meet overall water demand.
Required infrastructure maintenance is anticipated to cause an imbalance in projected supply and demand.
Water resources monitoring data indicates that aquifer recharge is insufficient and requires a 40% reduction in demand to promote recharge and prevent further drawdown.
A natural disaster or contamination of water supply as occurred that requires a 40% reduction in water demand.

Level 5 Water Supply Shortage

A Level 5 Water Supply Shortage Condition will be declared if one or more of the following conditions exist:

April 1 snow water content at Mammoth Pass is 15% or less and the previous year's snow water content at Mammoth Pass was less than 40%.
April 1 snow water content at Mammoth Pass is 20% or less and the 3-year average snow water content at Mammoth Pass is less than 40%.

If the percentage of groundwater is predicted to be 90% of the overall water supply and aquifer levels dictate that a 50% reduction of typical demand is necessary to meet overall water demand.
Required infrastructure maintenance is anticipated to cause an imbalance in projected supply and demand.
Water resources monitoring data indicates that aquifer recharge is insufficient and requires a 50% reduction in demand to promote recharge and prevent further drawdown.
A natural disaster or contamination of water supply as occurred that requires a 50% reduction in water demand.

7.3.2 DRA Water Source Reliability

The District's priority source, surface water, is heavily dependent on water content at Mammoth Pass on April 1. In addition, the ability to utilize surface water is dependent on time of runoff verses water demand. This is due to limited (606 acre-feet) storage capacity in Lake Mary. Groundwater is used when surface water is not available or is being held in storage. Groundwater supply can be limited by the capacity of the District's nine wells, groundwater level drawdown impacts on well production and the ability of the two GWTPs to effectively treat and remove naturally occurring drinking water contaminants such as arsenic, iron and manganese.

7.3.3 Total Water Supply and Use Comparison

The UWMP must include an assessment of the water supply for a five-year consecutive dry-year period. The District utilized the most recent dry period (2013-2015) and extended it 2 years, as shown in Table 7-2 Basis of Water Year Data (Reliability Assessment). The supply projections were developed using the same methods described in section 7.3.1. The assessment shows that, when implementing consecutive increases of the Water Conservation Level, there is adequate water supply available.

Summary Conclusions from Analysis of Buildout Water Supply Reliability

Based on the historical record, MCWD has adequate water supply to meet community needs under the full range of water year types, including both the Severe One-year and Multiple-year droughts. This is primarily due to the availability of local groundwater resources, the development of recycled water supplies and conservation. Groundwater supplied 91% and recycled water supplied 6% of total delivered water during the severe 2015 drought. In addition, during the 2015 six-month irrigation season when water demand is highest, demand decreased by 34% in comparison to 2013 usage, due to customer compliance with water shortage restrictions.

During the intermediate planning horizons and through 2040 (Town buildout) which was extended to 2045 for this plan, the combined use of Mammoth Creek surface water, local groundwater, and recycled water results in a supply mix that can reliably meet the community needs under the full range of water year types. However, this long-range projection could be significantly impacted by future changes to both demands and supply. On the demand side, this analysis is largely influenced by the Town's land use policies on development type, density, and enforcement of their water-efficient landscape ordinance in addition to MCWD's implementation of water conservation regulations. Future demand projections incorporated demand reductions based on water consumption during the 2012-2015 drought. Climate change will increase demand by lengthening and intensifying the irrigation season, however current District conservation programs, landscape standards, and advances in irrigation technology and monitoring anticipate greater overall efficiency during the irrigation season.

On the supply side, surface water availability could be adversely impacted by climate change reductions to snowpack water content and altered watershed runoff patterns, which cannot be adapted to without significantly increased surface water storage. Similarly, climate change could reduce local groundwater supplies by decreased recharge to the aquifer. Local groundwater supplies could also be impacted by the expansion of geothermal energy production or natural changes from seismic or volcanic activity causing changes to the local hydrogeologic characteristics. In addition, groundwater production wells decrease production as they age, so existing well infrastructure will need to be replaced and renewed to maintain groundwater production. Finally, the ability of MCWD to produce recycled water consistently is critical. Each of these potential influences on future water supply and demand are -evaluated in UWMP updates to confirm the conclusions presented in this UWMP update. To prepare for the 2030 UWMP, the District plans to conduct a new analysis of its water supply projections, with the potential to introduce new methodologies.

Chapter 8 WATER SHORTAGE CONTINGENCY PLANNING

The District's Water Shortage Contingency Plan (Plan) was adopted as a separate document. The Plan, which is attached as Appendix E, satisfies the Water Code requirements for the District's Water Shortage Contingency Plan.

Chapter 9 DEMAND MANAGEMENT MEASURES

This chapter describes MCWD's water conservation programs developed to ensure a reliable water supply to the community and to meet State conservation targets. The following section describes the nature of each measure and the extent that each measure has been implemented by MCWD over the past five years.

9.1 Existing Demand Management Measures for Retail Suppliers

9.1.1 Water Waste Prevention Ordinances

MCWD has enacted ordinances and enforcement procedures to prevent the waste of water. The prohibition of water waste is within the Water Shortage Contingency Plan (WSCP), Level 0, Permanent Water Conservation Requirements, and is legally enforceable by the District. The District's mandatory Level 0 permanent water conservation requirements, summarized below, are in effect at all times. The Level 0 requirements have not changed since the 2020 UWMP. In 2021, the District added an additional Level of Water Shortage Condition to its existing water conservation ordinance which requires a 40% reduction in water demand and permitted the District to come into compliance with the requirement of having a total of six water conservation levels. The District will continue to annually review its WSCP and amend it as necessary to incorporate advances in technology (e.g., hourly meter readings), support local ordinances and state laws intended to achieve water conservation, and to ensure that local and state conservation goals are met. Conservation ordinances and increased enforcement have been an effective tool for decreasing water waste. A copy of the WSCP, which described the District's permanent Level 0 conservation requirements and Levels 1-5 of increasing additional conservation measures, is provided in Appendix E.

Implementation over past five years

All of MCWD's customers are subject to the Board's ordinances imposing water regulations and enforcement measures. All 163 irrigation-only accounts have maximum applied water allowances (MAWA) tailored to their landscaped area. The MAWA assigned to each of these accounts creates a target water use for the customers. If a customer exceeds their target water use, they are required to pay penalties for such violations. At the time the MAWA allocation was created, many accounts were using over double their allowances. Monitoring irrigation allowances on these accounts for compliance has had a significant impact on reducing irrigation usage. Increasing enforcement of the District's prohibitions on water waste also has reduced demand in an amount that has not been quantified. Permanent water conservation requirements include 'Excessive Application of Irrigation Water', 'Construction and Maintenance Water', and 'Decorative Water Features' (See Appendix E, WSCP, p. 11), to encourage additional water use reductions. Water savings resulting from these measures overlap other programs such as leak detection and enforcing landscape water budgets. Therefore, no quantification of water savings has been provided. From 2021 to 2025, 865 notices of violations of water regulations were issued, an increase of 52% from 2016-2020.

9.1.2 Metering

Meters are required for all MCWD customers pursuant to the District's Water Code. MCWD has a long history of metering its customers' water use and has been in compliance with the Water Code sections 525 and 527 metering mandates since 1980.

In early 2015, the District completed a major meter replacement project that installed an Advanced Meter Infrastructure (AMI) system. All meters were equipped with new radio communication systems. At the time of the project, all 3,367 meters that are 2 inches or less in size were replaced with Neptune T10 positive displacement meters. Meters meet or exceed the latest AWWA C700 Standard and are repaired or replaced as needed with new technology. Fixed-base AMI data collectors are installed in strategic locations throughout town to allow for two-way communication between all District meters and the collectors.

Implementation over last five years

Since completion of AMI system, MCWD has been able to implement additional water conservation programs utilizing the hourly data from meters. Meter reading efficiency has varied following the installation of the meters, and a study is currently underway to assess the effectiveness of utilizing a new radio signal. Another system-wide replacement of meters and registers is scheduled for 2034. Per standard maintenance procedures, meters are replaced as needed if a meter becomes defective, stops reading, loses accuracy or freezes. The District has been replacing R450 radios with new R900 radios and two additional R900 radio collectors have been installed in strategic locations. Where applicable, the District continues to replace combination meters with Neptune Mach 10 ultrasonic meters, which offer greater reliability and accuracy.
Hourly consumption data provides excellent enforcement capabilities, informs MCWD's leak detection program, and provides valuable information to our customers however, it is not feasible to separate water savings resulting from installation of the AMI from other MCWD water conservation programs.

9.1.3 Conservation pricing

MCWD customers receive a monthly water bill that includes a water service fixed charge established by meter size. Table 9-1 MCWD Monthly Water Service Fixed Charges shows the fixed monthly charges from 2026 – 2031.

In addition, customers are charged for water used with a two-tiered rate structure to encourage the reduction of water use. The Tier 1 rate applies to the first 3,500 gallons during a billing cycle. The Tier 2 rate applies to all water used over 3,500 gallons per billing cycle. The tiered water commodity rates reflect the increased cost of supplying groundwater to supplement surface water when demand increases.

All accounts with a dedicated irrigation meter or meters are assigned a monthly allocation (Maximum Applied Water Allowance) based on the size of their irrigated area. Fines are imposed on a customer if water use for irrigation exceeds the monthly allocation.

Implementation over past five years

In April 2025, MCWD conducted a review of rates charged for water and wastewater services. The purpose of the review was to ensure the revenue collected by the District is adequate to meet the current and future operating and capital expenses of the District, and to properly allocate the cost of providing services to each type of customer. On November 18, 2025, the Board received the draft report

and concurred with the recommendations for changes to the water and wastewater rates. The report documented the process used to establish a nexus between the rates charged and the cost of providing service. The Board directed District staff to notify all property owners of the recommended changes and schedule a public hearing to comply with Proposition 218 and AB 2257 requirements and allow customers to have input on the proposed rate structure. The new rate structure was approved by the Board and became effective April 1, 2026.

The rate structure implements a two-tier water variable charge for all customers that reflects the cost difference to provide surface water and groundwater. Additionally, it uses the ratios of maximum allowable water fixture units and wastewater equivalent units to set the fixed charge for customers with different meter sizes. This structure provides an incremental annual increase to the water and wastewater base service charges and water usage charges beginning April 1, 2026, and continuing through March 31, 2031. The annual increase provides for the expected inflation in operating costs.

Table 9-1 MCWD Monthly Water Service Fixed Charges shows the tiered rates for each of the District's customer classes from 2026-2031. By reflecting the higher cost of providing water in a second, higher rate tier, as an additional benefit the rate structure is expected to encourage conservation and assist in managing system demand. It is not feasible to measure water conservation that resulted solely from conservation pricing.

Table 9-1 MCWD Monthly Water Service Fixed Charges

Meter Size	Beginning 4-1-2026	Beginning 4-1-2027	Beginning 4-1-2028	Beginning 4-1-2029	Beginning 4-1-2030
MFR/unit	$16.32	$16.80	$17.31	$17.83	$18.36
5/8"	$16.32	$16.80	$17.31	$17.83	$18.36
3/4"	$16.32	$16.80	$17.31	$17.83	$18.36
1"	$29.00	$29.87	$30.77	$31.69	$32.65
1 1/2"	$107.61	$110.84	$114.17	$117.59	$121.12
2"	$185.90	$191.48	$197.22	$203.14	$209.23
3"	$226.12	$232.90	$239.89	$247.09	$254.50
4"	$494.96	$509.81	$525.11	$540.86	$557.09
6"	$1,480.75	$1,525.18	$1,570.93	$1,618.06	$1,666.60
8"	$2,032.20	$2,093.17	$2,155.97	$2,220.65	$2,287.26

Table 9-2 MCWD Water Commodity Rates ($/1,000 gallons)

	Beginning 4-1-2026	Beginning 4-1-2027	Beginning 4-1-2028	Beginning 4-1-2029	Beginning 4-1-2030
Tier 1	$1.80	$1.85	$1.91	$1.97	$2.03
Tier 2	$4.51	$4.65	$4.79	$4.93	$5.08

9.1.4 Public Education and Outreach

MCWD has an ongoing program to inform its customers about water supply conditions, conservation tips, landscape management practices, and other District programs. It includes a school education program, public education workshops and tours, an advertisement campaign, a customer portal and actively updating the District's website, and social media accounts.

School Education Program

MCWD has co-sponsored the Mammoth Middle School sixth grade water and energy conservation program, LivingWise, every year since the 2006/2007 academic year. In addition, MCWD staff accommodates all requests from schools for tours or talks.

The 6th grade LivingWise program educates students about energy and water resource efficiency. The program provides each student with water efficient aerators for the kitchen and bathroom and a water efficient showerhead. To develop an understanding of water and energy use, students conduct an indoor water and energy audit and use this information to reduce those resource demands by installing the free fixtures and making other lifestyle changes in their homes. In addition to the classroom curriculum, the students learn about their local water supply and MCWD's wastewater treatment by participating in an MCWD led tour of the Mammoth Lakes basin, environmental monitoring stations, a water treatment plant, and the wastewater treatment plant and laboratory.

Implementation over past five years

The program is ongoing and reaches all 6th grade children in the Mammoth Lakes public school system. Importantly, the program provides the information necessary for a lifetime of practicing resource conservation. **Error! Reference source not found.** below, illustrates program costs and estimated water savings, but does not include staff time for classroom presentations and organizing and leading field trips.

Table 9-3 LivingWise Program - Water Savings and Program Costs

Year	2021	2022	2023	2024	2025
Program participants	95	80	80	85	90
Estimate of Annual Water Savings (gallons)	358,409	301,818	426,318	426,318	2,391,905
Program Cost	$4,054	$2,760	$3,897	$4,500	$4,385

Public Workshops and Classes

Public participation is an essential component of achieving water demand reductions. MCWD reaches out to the local community to enhance learning opportunities that emphasize water use efficiency, provide a forum for interaction with MCWD staff, and demonstrate MCWD operations through tours and lectures. Classes targeting working community members, e.g., landscape maintenance employees and landscapers, are held during the lunch hour with lunch provided by the District to facilitate participation. MCWD regularly conducts tours of the wastewater treatment plant to educate customers on the water distribution and wastewater collection systems, energy impacts of water delivery, and promote water conservation programs. MCWD views the tours as an opportunity to engage customers and promote awareness about MCWD operations and water demand.

MCWD not only conducts annual tours of facilities with the Mammoth Middle School's sixth-grade class but also has provided tours to students from the California University of Redlands on several occasions.

MCWD provides additional tours where opportunities exist. In 2025 a visiting group from Dartmouth College received a tour and presentation on the District's facilities.

District staff also participate in public events hosted by the Town of Mammoth Lakes, including the annual Earth Day Celebration and Sustainability Fair. At these events, staff distribute conservation-focused giveaways—such as shower timers, sink aerators, hose nozzles, and irrigation timers—to encourage water efficiency. They also share up-to-date information on water supply conditions, Conservation Levels, and irrigation requirements, and provide guidance on available rebate programs, including application assistance.

Leak Detection Program

MCWD continues to implement a leak detection program utilizing the AMI system to contact customers when leak alerts are identified. The program demonstrates a need to communicate potential leaks to customers and property managers that may otherwise be unnoticed. The program has permitted the District to enable customers, property managers, and plumbers to more efficiently search for and stop leaks at the earliest opportunity.

Implementation over past five years

Tours

MCWD regularly conducts tours of the wastewater treatment plant to educate customers on the water distribution and wastewater collection systems, energy impacts of water delivery, and promote water conservation programs. MCWD views the tours as an opportunity to engage customers and promote awareness about MCWD operations and water demand.

Implementation over past five years

In 2018, the District offered the public a tour of its Wastewater Treatment Plant facilities. Prior to touring the plant, participants were informed about our water resources, MCWD's water and wastewater infrastructure, current water conditions, and water conservation regulations. The District plans to continue to offer this tour biannually. The public tour scheduled for 2020 was cancelled due to COVID-19. It is unknown how much water savings may result from this educational program.

In August 2017, MCWD celebrated 60 years of service by inviting the public to an Open House at the District. Customers were able to tour the wastewater treatment plant, see demonstrations of software utilized by the District, and receive free conservation handouts.

This event was well received by the 52 adults and 10 children who attended. It is unknown how much water saving may have resulted from the open house, but awareness of the District and its operations was heightened.

Advertisements and Press Releases

MCWD regularly publishes advertisements and provides press releases to local newspapers and radio stations. Frequency of advertisements is highest during the irrigation season to remind customers to conserve water during the peak demand season and to inform residents and visitors of MCWD's water conservation regulations. Press releases are issued monthly. In addition, the public is informed about the location of construction projects and any potential disruptions in service. Outside of the irrigation season, topics include minimizing the buildup of fats, oils, and grease in the sewer system, and the rebate program. The District does not regularly put out a newsletter. However, in 2020, the District

released its first annual report highlighting upgrades and maintenance projects completed during the year, water conservation efforts, district finances, and a cumulative report on permits issued. The annual report is available to the public and presented to the Board.

MCWD also utilizes its website and social media for public outreach. Messages are updated regularly and generally corresponds with the recent advertisements and press releases.

Implementation over past five years

It is not possible to estimate savings resulting from this program. See **Error! Reference source not found.** for amounts spent on advertising from 2021-2025.

Table 9-2 Annual Advertising Expenditures Fiscal Years 2021-2025

2021	2022	2023	2024	2025
$16,495	$17,515	$12,827	$18,963	$16,631

WaterSmart Customer Portal

In 2016, MCWD made a WaterSmart Customer Portal (Portal) available to its customers. The Portal provides customers with the ability to monitor hourly usage at their property, set leak alerts and high usage notifications, communicate with MCWD staff, and receive water conservation tips. The software provides robust analytics for MCWD staff to monitor for leaks and irrigation violations. In addition, the *Group Messengers* function provides a tool for MCWD to easily email or text customers with related information.

Beginning in 2023, the District began a public outreach campaign to enroll customers into the virtual Customer Portal, a feature of Tyler Technologies software, used by the District. The Customer Portal, accessed through the MCWD website, allows customers to pay bills and monitor water usage. Customers can set a threshold for daily water consumption and when usage exceeds the threshold an alert is sent via email or text message. The campaign included weekly radio advertisements, newspaper advertisements, and monthly messages within customer bills, urging customers to enroll in the program and create personalized leak alerts. Currently 65% of the District's customers have enrolled in the Customer Portal.

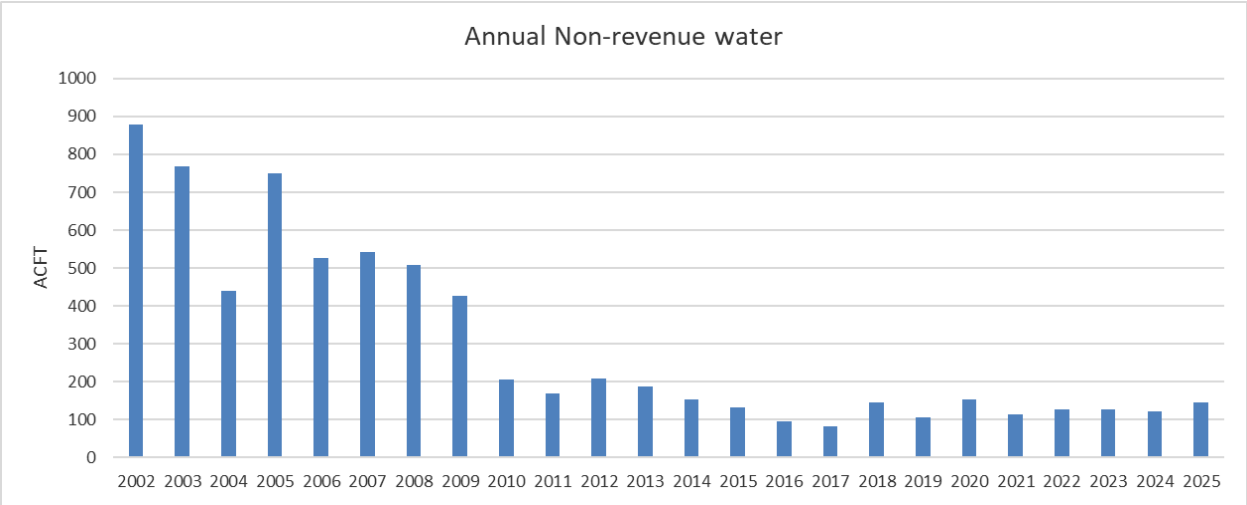
Implementation over past five years

The portal has gained in popularity over the past five years, with 65% of customers enrolled. The District has not calculated savings from having the customer portal available but continues to receive positive feedback from customers regarding the opportunity.

9.1.5 Programs to assess and manage distribution system loss

The District identified old leaking steel water mains as a significant source of water loss in the early 2000s. Non-revenue water represented about 16 to 25% of total produced water. MCWD has consistently implemented programs to reduce distribution losses by replacing aging steel mainlines and laterals to customer's properties and installing master meters at large properties with long laterals leading to meters. In 2013, MCWD completed a high priority project to replace over 110,700 feet (21 miles) of aging steel water distribution mains. This project resulted in reducing distribution water losses to about 7% and significantly reduced the need for staff to respond to emergency leak repairs. The results of this effort are described displayed in Figure 9-1 Annual Non-revenue Water.

Figure 9-1 Annual Non-revenue Water



1. Totals displayed are different from AWWA water audit results. This data does not count authorized non-revenue water as a loss.

In 2010, MCWD began a master metering project on developments having long laterals within the private parcels comprising the development before reaching the customers meters. The new master meters capture water losses occurring within the development but not captured in the billing usage. Master meters in parallel with sub-meters can also be used to separate irrigation from domestic use.

In addition, non-revenue water is evaluated monthly. The monthly auditing procedure compares effluent volume from the water treatment plants to the volume of billed water. This program has been an effective mechanism for quickly responding to water losses and for assessing inconsistent water usage that may indicate leaks or failing meters. The monthly water audits are presented to the MCWD Board of Directors and are discussed at the staff and management level to evaluate potential solutions and resolution. In 2015, MCWD began using the AWWA Water Audit Manual and Software. The results are reported in Chapter 4, section 4.2.4.

Implementation over past five years

Over the past five years, the District has maintained a comprehensive and proactive strategy for managing distribution system losses. Lateral replacement work continues as needed and is complemented by the implementation of the Advanced Metering Infrastructure (AMI) system, an active customer leak detection program, and routine water loss audits. These efforts build upon more than 25 years of infrastructure improvements that have substantially reduced non-revenue water.

In addition, the Line Maintenance Department conducts systematic leak detection, including fire hydrant inspections, with approximately 600 hydrants evaluated every two years across most of the District's service area. Potential leaks identified during these inspections are followed by focused leak detection efforts and timely repairs. This integrated approach supports early detection, efficient response, and long-term system reliability.

9.1.6 Water conservation program coordination and staffing support

MCWD's conservation coordination efforts are maintained by the Principal Administrative Analyst within the District's Administrative Department, Regulatory Services and Conservation Division (RSD). The RSD

staff develops public information for local media outlets, works with the Town to encourage water demand reduction in new developments and landscaping, and develops and implements water conservation programs for MCWD. The RSD staff work with all District departments to increase water conservation savings, achieve the conservation targets during Water Shortage conditions, and inform the public about MCWD activities that affect the community.

Implementation over past five years

The RSD positions are permanent positions at MCWD. The District does not estimate water savings resulting from maintaining these staff positions. The District maintains a Water Conservation budget reserved for activities such as advertisements, external program support, free conservation give-away items, and rebate programs. Between 2021-2025, the average annual Water Conservation budget was $147,000.

9.1.7 Other demand management measures

Rebate Program

MCWD has had a water efficient fixture rebate program since 2006. The MCWD Board of Directors provides for the program through the annual budgeting process. The program has varied over the years on which types of fixtures would receive rebates. Currently rebates are available on WaterSense labeled toilets and urinals, clothes washers, and dishwashers

A rebate of up to $200 per toilet/urinal for the first two toilets/urinals in a unit is available and additional toilets/urinals may receive a rebate of up to $100 per toilet/urinal. Eligible new clothes washers must have a water factor (WF) of 4.5 or less. The rebate for a clothes washer is $400. A $200 rebate is available for Energy Star certified dishwashers. New construction projects governed by the Green Building Code Standards and new toilets added to a building are not eligible for the rebate program.

Implementation over past five years

Annual spending for the program and water savings is shown below in **Error! Reference source not found.**.

Table 9-3 Rebate Program Summary Fiscal Year 2021 - 2025

Indoor Rebate Program	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Applications Processed	250	272	201	121	141
High-efficiency Toilets	289	343	186	112	144
Clothes Washers	30	39	25	18	22
Dishwashers	57	50	38	22	31
Estimated Annual Savings (gallons)	1,715,822	1,980,657	944,387	608,004	648,274
Total Amount Rebated	$75,439	$82,437	$48,612	$33,188	$42,568

* Estimated Water Savings does not include an estimated savings for pressure reducing valves

Outdoor Rebate Program

In March 2022, the District's Board approved a program to pay property owners up to $2.00 per square foot for removing turf grass and replacing the landscaping with approved materials and plant species. Eligible areas for the program must be irrigated and established turf, and a minimum of 400 square feet.

All residential, commercial, and multi-family properties are eligible for the rebate. Upon application submittal, staff perform a pre-inspection to verify qualifying irrigated landscape, and a post-inspection following turf removal. Funding for the program has continued to be included in the District's budget for water conservation programing.

Implementation over past five years

During the summer of 2022, the District operated under Water Conservation Level 3 restrictions, which significantly reduced permitted landscape irrigation times. As a result, the Turf Rebate Program experienced a high volume of participation. Following 2022, the region experienced wet or normal years, decreasing the Water Conservation Level which allows for less restricted landscape irrigation potentially a reason for less customer participation with the program. Staff continue to promote the program through newspaper and radio advertisements. Additionally, irrigation customers notified of potential leaks are provided with information about the program. For each turf replacement project, staff generates an estimate of water savings based on the square feet converted from turf grass to the alternative landscaping. The program has led to approximately 1.2 million gallons of water savings, see Table 9-6 below for more information.

Table 9-6 Outdoor Rebate Program Summary Fiscal Year 2023-2025

Outdoor Turf Rebate Program	FY 2023	FY 2024	FY 2025	Total
Applications Processed	12	2	3	17
Amount of Landscape Converted (sf)	50,270	3,122	3,568	56,960
Estimated Water Savings (gal)	1,052,559	70,215	79,040	1,201,814
Rebate Awards	$87,620	$6,244	$7,136	$101,000

Free Water Efficiency Items

The District provides a variety of free water saving items to customers such as hose shut-off nozzles and timers, sink aerators, showerheads, shower timers, dish squeegees, and pre-rinse fixtures. Providing free water efficiency items to customers has boosted customer relations and demonstrated the ease of making minor changes that have little to no impact on lifestyle. Free irrigation items are carried by field crews to facilitate conversations with customers violating irrigation regulations and are also available at the front office.

Implementation over past five years

Items are available for pick up at the District office's front desk, provided in the field, made available at workshops and tours, and provided to condominium complexes upon request at no cost to the customer. **Error! Reference source not found.** Table 9-7 below shows spending incurred by MCWD to provide free water conservation items to customers.

Table 9-7 Expenses for Free Efficiency Items Fiscal Years 2021 - 2025

Calendar Year	2021	2022	2023	2024	2025
Amount Spent on Free Items	$1,777	$2,675	$1,679	$1,633	$3,295

Leak Detection Program

Since January 2015, the District has been able to access customer's hourly consumption data through the AMI system. This detailed information allows MCWD to identify customer leaks that are unidentifiable with only monthly data. MCWD staff notifies customers of leaks and they are given a specified period for making repairs depending on the size and duration of the leak and any water shortage condition that may be in effect. Customers are responsible for repairing leaks on their side of the meter and they may be subject to penalties if repairs are not made within designated timelines.

Implementation over past five years

Previously, MCWD had used monthly billing data to identify unusually high usage that might indicate a leak on a customer's premises. Table 9-8 displays the number of electronic leak alerts provide to customers by staff from 2021-2025.

Table 9-8 Leak Alerts Sent to Customers by Staff

Year	Number of Leak Alerts Sent to Customers
2021	293
2022	337
2023	276
2024	592
2025	634
Total	2,132

Communicating Water Use via Water Bills

Each MCWD water bill compares current monthly use with the previous year. A conservation message to customers is also included on the bill.

Implementation over past five years

Water bill comparison and conservation messages have been included in all billings from 2016-2025.

9.2 Implementation over the Past Five Years

A description of implementation is provided under each Demand Management Measure category discussed above.

9.3 Implementation to Achieve Water Use Targets

MCWD has met its 2025 water use targets. However, all the demand management measures described in Section 9.1 will continue. MCWD plans to continue water conservation programs to ensure a reliable supply for the Town of Mammoth Lakes now and into the future, especially as the specific impacts of climate change remain uncertain.

9.4 Water Use Objectives (Future Requirements)

MCWD will continue its current demand management measures and will remain flexible to adjust in order to align conservation management with future water use objectives as they are developed.

Chapter 10 PLAN ADOPTION, SUBMITTAL, AND IMPLEMENTATION

The UWMP guidelines require that, prior to adoption of the 2025 UWMP, the District must provide a draft for public review and provide notice to the public and pertinent agencies of a public hearing to accept comments. The District's Board of Directors will consider adopting the 2025 UWMP following the public hearing. After the UWMP is adopted, a copy of the final 2025 UWMP will be filed with the Department of Water Resources (DWR) within 30 days of adoption.

10.1 Notice of Public Hearing

The draft 2025 UWMP was made available to the public for review at the Mammoth Lakes branch of the Mono County Public Libraries and the District office and made available for download from the District's website. A link to the draft 2025 UWMP and the Notice of a Public Hearing were provided to the Mammoth Lakes Town Manager, the Mono County Administrative Officer, and those agencies listed in Table 2-2 Agencies/Organizations Notified of UWMP Update via mail on May, xx, 2026. A Notice of a Public Hearing on the 2025 UWMP that included information on obtaining copies of the draft plan for review and comment was published in the local paper for two successive weeks, May xx and xx, 2026, and posted on the District's website. News releases were provided to the local radio stations. The Notice of a Public Hearing is provided in Appendix C.

10.2 Public Hearing and Adoption

The public hearing and subsequent consideration for adoption occurred on May 21, 2026. During the Board meeting to discuss adopting this plan, the Board received a brief presentation on it. Resolution No. 05-21-26-xx adopting MCWD's 2025 UWMP was approved during the regular Board meeting. The resolution is attached as Appendix D.

10.3 Plan Submittal and Public Availability

DWR and the State Library will receive a copy of the final 2025 UWMP within 30 days of being adopted by the District's Board of Directors. In addition, copies will be provided to the planning departments of the Town and Mono County within the same timeframe. An electronic copy will be available from MCWD's website: www.mcwd.dst.ca.us and a hardcopy will be available for public review at the District's office located at 1315 Meridian Boulevard in Mammoth Lakes, California during regular office hours.

10.4 Amending an Adopted UWMP

Subsequent to adoption, any amendments or changes to the 2025 UWMP will comply with the same procedures for adoption and submittal to state and local agencies as described in this Chapter.

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APPENDIX A DEFINITIONS AND ABBREVIATIONS

Acre-Feet – Also **AF or ac-ft.** An acre-foot is the amount of water covering one acre with one foot of water. It is equivalent to 325,851 gallons.

Adaptation strategies – In relationship to responding to climate change, these are methods to undertake to respond to the effects of climate change.

AWWA – American Water Works Association. An international non-profit association dedicated to improving water management and water quality.

Base daily per capita water use – The District's estimate of average gross water use, reported in gallons per capita per day and calculated over a continuous 10-year period ending no earlier than December 31, 2004, and no later than December 31, 2010. A second base period is a continuous five-year period, and is used to determine whether to 2020 per capita water use targets meets the legislation's minimum water use reduction requirement.

BLM - Bureau of Land Management

CASGEM – California Statewide Groundwater Elevation Monitoring. A new state requirement created by SBX7-7, establishing a statewide program to collect groundwater elevations and report the information to the public.

CDEC – The California Exchange Center. A website developed by DWR to share state hydrological data.

CEDD – Town of Mammoth Lake's Community and Economic Development Department

Compliance daily per capita water use – the gross water use during the final year of the reporting period, reported in gallons per capita per day (CWC § 10608.12 (e)).

Customer Water Demand – The amount of metered delivered water. This demand figure excludes water losses, water treatment plant process water and recycled water deliveries.

CWC – California Water Code.

District – Mammoth Community Water District.

DMM or Demand Management Measures – Water Conservation measures, programs, and incentives that prevent the waste of water and promote the reasonable and efficient use and reuse of available supplies (CWC § 10611.5).

DWR – California Department of Water Resources.

Effective Population – An adjusted population measurement that accounts for both the full time resident population and the combined transient population of seasonal workers and tourism-based visitors. The community water use on a per capita basis is then calculated using the effective population. Effective population is calculated as (PAOT minus resident population)x(average annual occupancy rate for transient housing and lodging) + resident population.

GPCD – Gallons per capita day.

GBUAPCD – Great Basin Unified Air Pollution Control District

Gross water use – The total volume of water entering the potable water distribution system. Recycled water for irrigation and water used to backwash filters at the treatment plant is excluded. Water losses caused by meter reading errors and leaking pipes are included in this use category.

GWMP – Mammoth Community Water District's Groundwater Management Plan. The District's planning document to monitor and manage groundwater production in a sustainable manner. The plan can be accessed at www.mcwd.dst.ca.us/ProjectsReports/GWMP.

GWTP – Groundwater treatment plant.

HECW – High efficiency clothes washer. For the purposes of MCWD, a HECW has a water factor of 4.5 or less.

Interim urban water use target – the mid-point between the urban retail water supplier's base daily per capita water use and the urban retail water supplier's urban water use target for 2020 (CWC 10608.12(j)).

IRWM or Integrated Regional Water Management – A regionally based collaborative effort to manage all aspects of water resources within a region. This effort involves forming a group of water resource related stakeholders to develop an IRWM Plan.

Interim urban water use target - The midpoint between the base daily per capita water use and the urban retail water supplier's urban water use target for 2020.

LADWP – Los Angeles Department of Water and Power.

LMWTP – Lake Mary Water Treatment Plant.

Lower Income – Includes persons and families whose income does not exceed the qualifying limits for lower income families as established by Section 8 of the U.S. Housing Act of 1937. Lower income households includes very low income households as defined in Section 50105, and extremely low income households, as defined in Section 50106.

MAWA – Maximum Applied Water Allowance refers to the upper limit of annual water applied to an established landscaped area. Determining MAWA requires local evapotranspiration (ET) rates, an ET adjustment factor (adjusts for irrigation efficiency and plant water requirements), and the landscape area.

MCWD – Mammoth Community Water District.

MGD – Million gallons per day.

Mitigation strategies – In relationship to climate change, these are actions taken to reduce greenhouse gas emissions.

PAOT – People at One Time.

RWQCB – Regional Water Quality Control Board.

SCADA – Supervisory Control and Data Acquisition. This system allows District staff to access data regarding the water and wastewater systems and to control the processes as needed.

Service Area – A Mono County Local Agency Formation Commission boundary to ensure efficient community services and land use planning.

Snow water content – Also referred to as snow water equivalent. This is a measurement of the amount of water contained in the snowpack.

SWRCB – State Water Resources Control Board.

Target Method – One of four methods to calculate an urban retail water supplier's urban water use target pursuant to CWC 10608.20(a).

Town – The incorporated Town of Mammoth Lakes.

Urban water use target - The District's targeted future daily per capita water use.

USFS – United States Forest Service.

UWMP – Urban Water Management Plan.

Urban Growth Boundary – A regional planning tool used to delineate urban growth boundaries from open space. The Town of Mammoth Lakes adopted an Urban Growth Boundary policy in 1993.

VFD – Variable frequency drive.

WW – Wastewater.

SENT VIA U.S. MAIL AND ELECTORNIC MAIL

January 7, 2026

[Addressee]

RE: Mammoth Community Water District update of Urban Water Management Plan

To whom it may concern,

The Mammoth Community Water District (District) will be updating its 2020 Urban Water Management Plan (UWMP) pursuant to the California Urban Water Management Planning Act (California Water Code Division 6, Part 2.6). This Act is intended to ensure water suppliers conduct long-term planning of water resources so that adequate water supplies are available to meet existing and future demands in their service area. The 2025 UWMP will include a discussion of the following topics:

- A description of the District's water system;
- A description of existing and planned sources of water supply in relationship to the existing and projected water demand;
- Progress of conservation efforts to reduce water demand and compliance with SBX7 (20% reduction by 2020);
- An assessment of future water supply reliability and drought preparedness;
- The water loss standard; and
- A water shortage contingency analysis and plan.

If you have information regarding land-use planning decisions that may affect water consumption over the next 20 years or if you have comments, questions or both, please contact me directly.

The UWMP is scheduled for completion on July 1, 2026. A public hearing to explain the plan and accept comments is planned to take place in April 2026. The MCWD Board of Directors will consider adoption of the plan at the regularly scheduled Board meeting on May 21, 2026. You will receive confirmation of the date and time for the hearing 30 days prior to its occurrence.

The MCWD 2020 Urban Water Management Plan is available on the District's website, https://www.mcwd.dst.ca.us/files/f400b1f3d/Final-2020-UWMP.pdf.

Sincerely,

Michael Draper
Principal Administrative Analyst
Regulatory Services Division
Mammoth Community Water District
PO Box 597 | 1315 Meridian Blvd.
Mammoth Lakes, CA 93546
Tel. 760.934.2596 ext. 274
mdraper@mcwd.dst.ca.us

cc: Board of Directors, MCWD

The following notices of a public hearing were published May 2, 2026 and May 9, 2026 in The Sheet, a local weekly newspaper.

Mammoth Community Water District
Notice of Public Hearing Regarding the Intent to Adopt
the 2025 Urban Water Management Plan

The Mammoth Community Water District (District) will be holding a public hearing regarding its draft 2025 Urban Water Management Plan (UWMP) at 5:30 p.m. on May 21, 2026, at the District office, 1315 Meridian Blvd., Mammoth Lakes, California 93546. The purpose of the UWMP is to ensure that the water supplier has an appropriate level of water supply reliability sufficient to meet the needs of its customers during normal, dry, and five consecutive dry years within a 20-year planning horizon. The UWMP describes water supply, water demand, and specific measures implemented to reduce water usage. The Urban Water Management Plan must be updated and adopted every five years.
The public is invited to provide comments during the hearing in person at the District office or by the remote attendance methods provided below. For members of the public interested in viewing and having the ability to comment at the public hearing via Zoom, an internet-enabled computer equipped with a microphone and speaker or a mobile device with a data plan is required. Use of a webcam is optional. You also may call in to the hearing using teleconference without video. Members of the public who wish to participate in the hearing may do so by joining the following Zoom Videoconference Meeting: https://zoom.us/j/7609342596 (meeting ID: 760 934 2596) OR join via teleconference by dialing 1-669-444-9171, 760-934-2596#

Copies of the draft 2025 UWMP are available for public inspection at the District office, on the District website, www.mcwd.dst.ca.us, and at the Mammoth Lakes Public Library at 400 Sierra Park Road, Mammoth Lakes, California.
Comments, concerns, or suggested revisions on the draft 2025 UWMP must be submitted by close of the public hearing on May 21, 2026. In addition, oral comments may be submitted on the plan during the hearing. Correspondence prior to the hearing may be transmitted to:

U.S. Mail: Mammoth Community Water District
UWMP
P.O. Box 597
Mammoth Lakes, CA 93546

Email: mdraper@mcwd.dst.ca.us
Subject: UWMP

Mammoth Community Water District
Notice of Public Hearing Regarding the Intent to Adopt
the 2026 Water Shortage Contingency Plan

The Mammoth Community Water District (District) will be holding a public hearing regarding its draft 2026 Water Shortage Contingency Plan (WSCP) at 5:30 p.m. on May 21, 2026, at the District office, 1315 Meridian Blvd., Mammoth Lakes, California 93546. The draft 2026 WSCP provides measures for conserving water when the District water supply is in a shortage condition due to drought or other emergencies.

The public is invited to provide comments during the hearing in person at the District office or by the remote attendance methods provided below. For members of the public interested in viewing and having the ability to comment at the public hearing via Zoom, an internet-enabled computer equipped with a microphone and speaker or a mobile device with a data plan is required. Use of a webcam is optional. You also may call in to the hearing using teleconference without video. Members of the public who wish to participate in the hearing may do so by joining the following Zoom Videoconference Meeting: https://zoom.us/j/7609342596 (meeting ID: 760 934 2596) OR join via teleconference by dialing 1-669-444-9171, 760-934-2596#

Copies of the draft 2026 WSCP are available for public inspection at the District office, on the District website, www.mcwd.dst.ca.us, and at the Mammoth Lakes Public Library at 400 Sierra Park Road, Mammoth Lakes, California.

Comments, concerns, or suggested revisions on the draft 2026 WSCP must be submitted by close of the public hearing on May 21, 2026. In addition, oral comments may be submitted on the plan during the hearing. Correspondence prior to the hearing may be transmitted to:

U.S. Mail: Mammoth Community Water District
WSCP
P.O. Box 597
Mammoth Lakes, CA 93546

Email: mdraper@mcwd.dst.ca.us
Subject: WSCP

Will be included in the final published version

Submittal Table 2-1 Retail: Public Water Systems			
Public Water System Number	Public Water System Name	Number of Municipal Connections 2025	Volume of Water Supplied 2025 (AF)
Add additional rows as needed			
CA2610001	Mammoth CWD	3,568	1,970
	Total	3,568	1,970
DWR NOTES: **Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.			
NOTES:			

Submittal Table 2-2: Plan Identification		
Select One	**Type of Plan**	**Name of Regional Alliance or RUWMP** (Drop Down List)
☑	**Individual UWMP**	
	If Water Supplier is also a member of a SB X7-7 Regional Alliance, select name from the drop-down.	
☐	**Regional Urban Water Management Plan (RUWMP)**	
	If Supplier selected RUWMP, select name from the drop-down.	
NOTES:		

Submittal Table 2-3: Supplier Identification	
Type of Supplier (select one or both)	
☐	Supplier is a wholesale supplier
☑	Supplier is a retail supplier
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 the drop down list).	
Unit	AF
DWR NOTES: **Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Submittal Table 2-3.	
NOTES:	

Submittal Table 2-4 Retail: Water Supplier Information Exchange Water Code Section 10631(h)
The retail Supplier has informed the following wholesale supplier(s) of projected water use.
Wholesale Water Supplier Name
Add additional rows as needed
NA
NOTES:

Submittal Table 3-1 Retail: Population - Current and Projected Water Code Section 10631(a)						
Population Served	2025	2030	2035	2040	2045	2050(opt)
	24,202	26,033	27,865	29,698	31,532	
NOTES:Population served is determined by method to account for transient population. See Chapter 3.4.1 Service Area Population explanation.						

Submittal Table 4-1 Retail: Total Uses for Potable and Non-Potable Water — Actual Water Code Section 10631(d)(1)			
Use Type	Additional Description (as needed)	2025 Actual Water Use	
Drop down list May select each use multiple times These are the only use types that will be recognized by the WUEdata online submittal tool		**Potable or Non-Potable** (OPTIONAL) Drop down list	Volume (AF)
Add additional rows as needed			
Single Family	SFR, Mobile homes	Potable	419
Multi-Family	Apt, Condo, Condo+irrigation	Potable	713
Commercial		Potable	350
Institutional/Governmental	Public, District	Potable	81
Landscape	Landscape irrigation with DIM	Potable	254
Landscape	Golf course irrigation (includes	Non-Potable	151
Other (optional)	Trucked recycled	Non-Potable	10
Distribution System Water Loss		Potable	145
		Subtotal Potable	1962
		Subtotal Non-Potable	161
		Total	2,123
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.			
NOTES:			

Submittal Table 4-2 Retail: Total Uses for Potable, and Non-Potable Water — Projected
Water Code Section 10631(d)(1)

Use Type	Additional Description (as needed)	Projected Water Use (Report To the Extent that Records are Available)					
Drop down list May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool		**Potable or Non-Potable** (OPTIONAL) Drop down list	**2030 (AF)**	**2035 (AF)**	**2040 (AF)**	**2045 (AF)**	**2050 opt (AF)**
Add additional rows as needed.							
Single Family		Potable	451	483	515	547	
Multi-Family		Potable	877	1,041	1,205	1,369	
Commercial		Potable	415	482	547	613	
Institutional/Governmental		Potable	148	215	281	348	
Landscape		Potable	238	164	177	189	
Landscape	Recycled Golf Course	Non-Potable	152	212	212	212	
Landscape	Raw water	Non-Potable	65	88	88	88	
Other (optional)	Trucked Recycled Water	Non-Potable	6	6	6	6	
Distribution System Water Loss		Potable	191	214	245	275	
		Subtotal Potable	2,319	2,598	2,970	3,341	0
		Subtotal Non-Potable	223	306	306	306	0
		Total	2,543	2,903	3,276	3,647	0

DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.

NOTES:

Submittal Table 4-3 Retail: Inclusion in Water Use Projections Water Code Section 10631 (a), 10631 (d)(4)(A), and 10631 (d)(4)(B)	
Are Future Water Savings Included in Projections? **Drop down list (y/n)**	Yes
If "Yes" to above, **state the section or page number**, in the cell to the right, where citations of the codes, ordinances, or otherwise are utilized in demand projections are found. ***Optional*** Suppliers may complete Optional Submittal Table 4-4 R to quantify the expected savings.	Water Shortage Contingency Plan
Are Lower Income Residential Demands Included In Projections? **Drop down list (y/n)**	Yes
Optional If the method for accounting Lower Income Residential Demands has been included, provide page number where this accounting can be found.	
DWR NOTES: Additional guidance is provided in Appendix K.	
NOTES:	

Submittal Table 4-5 Retail: Water Loss Audit Reporting Water Code Section 10631(d)(3)(A)		
Public Water System ID # Reported in Table 2-1 R	Reporting Period	Submitted to DWR Water Loss Audit Program (yes/no)
Report submittal status for all five years for each Public Water System as available. Add rows as needed		
	2020	Yes
	2021	Yes
	2022	Yes
	2023	Yes
	2024	Yes
DWR NOTES: Suppliers will provide a link to the WUEdata submittals of their Water Loss Audit Reports.		
NOTES:		

Submittal Table 4-6 Retail: Progress Towards 2028 Water Loss Standard
Water Code Section 10631(d)(3)(C)

Public Water System ID # Reported in Submittal Table 2-1 R	Did the Water Board Calculate a Water Loss Standard for this Public Water System? (y/n) If no, Supplier will not complete this row.	Real Water Loss					Apparent Water Loss				
		State Water Board Standard		Most Recent AWWA Water Loss Audit			State Water Board Standard		Most Recent AWWA Water Loss Audit		
		2028 Real Water Loss Standard per Unit per day	Units for Real Water Loss Drop down list	Number of Units (Connections or Miles corresponding with units selected)	Volume of Total Real Loss (from AWWA Water Loss Audit) (AF)	Real Water Loss Per Unit per Day	2028 Apparent Water Loss Standard per Unit per Day	Units for Apparent Water Loss	Number of Connections	Volume of Total Apparent Loss (from AWWA Water Loss Audit) (AF)	Apparent Water Loss Per Unit per Day
Add additional rows as needed.											
261001	Yes	31.8	Gallons per Service Connection per Day (GPSCD)	3568	57.467	14.4	5.8	Gallons per Service Connection per Day (GPSCD)	3568	27.916	7.0

Water Board's Calculated Water Loss Standards

DWR NOTES: Units of measure (AF, CCF, MG) for Water Loss **MUST** remain consistent with units reported in Submittal Table 2-3. The units reported in Submittal Table 2-3 are used in this table's calculations.

NOTES:

Submittal Table 5-1 Retail: SB X7-7 2020 Target Progress Water Code Section 10608.40						
☐	Check the box if the Supplier was not an Urban Water Supplier during or before the 2020 UWMP reporting cycle. Proceed to the next table.					
Was Supplier part of a merger or consolidation since 2020?	Regional Alliance Target or Individual Target? Drop down list	2020 Target	Actual 2020 GPCD	Did Supplier Achieve Targeted Reduction for 2020?	Only for suppliers that did not meet the Target in 2020 See DWR NOTES below. Actual 2025 GPCD (From SB X7-7 Compliance Form)	Did Supplier meet the 2020 Target in 2025?
No	Individual Target	145	94	Yes	118	Yes
DWR NOTES: **Suppliers calculating a 2025 GPCD** will need to complete and submit SB X 7-7 Compliance Tables to verify the use of SB X7-7 Methodologies. **Suppliers that were part of a merger or consolidation since 2020** see Chapter 5 and Appendix P for guidance.						
NOTES:						

Submittal Table 6-1 Retail: Groundwater Volume Pumped
Water Code Section 10631(4) and 10631(4)(c)

☐	Check the box if the Supplier does not pump groundwater. Proceed to the next table.
☐	Check the box if all or part of the groundwater described below is desalinated. (OPTIONAL)

Groundwater Type **Drop Down List** May use each category multiple times	Potable or Non-Potable (OPTIONAL) **Drop down list**	Location or Basin Name	2021 (AF)	2022 (AF)	2023 (AF)	2024 (AF)	2025 (AF)
Add additional rows as needed							
Fractured Rock		Mammoth Basin	1546	909	345	132	317
		Total	1,546	909	345	132	317

DWR NOTES:
Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.

NOTES

Submittal Table 6-2 Retail: Wastewater Collected Within Service Area
Water Code Section 10633(a)

☐	Check the box if there is no wastewater collection system. Proceed to the next table.
100%	Percentage of 2025 service area served by wastewater collection system (OPTIONAL)
100%	Percentage of 2025 service area population served by wastewater collection system (OPTIONAL)

Wastewater Collection			Recipient of Collected Wastewater	
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? OPTIONAL **Drop Down List**	Volume of Wastewater Collected from UWMP Service Area 2025 (AF)	Name of Wastewater Treatment Plant (WWTP) and Place ID Number **Drop down list**	Is WWTP Located Within UWMP Area? **Drop Down List**
Add additional rows as needed				
Mammoth Community Water District	Metered	1,636	Mammoth CWD STP, Place ID 239283	Yes
Total Wastewater Received from UWMP Service Area in 2025:		1,636		

DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.
Additional Guidance: See Appendix M, Section M.21 for detailed guidance on this table.

NOTES:

Submittal Table 6-3 Retail: Wastewater Treatment and Outcomes Within UWMP Service Area
Water Code Section 10633(b)

☐ **Check the box if no wastewater is treated or disposed of within the UWMP service area.**
Proceed to the next table.

Wastewater Treatment Plant Name and Place ID Number **Drop down list**	Does This Plant Treat Wastewater Generated Outside the UWMP Service Area? (OPTIONAL) **Drop down list**	2025 Volume of Wastewater Received from UWMP Service Area (As Reported in Submittal Table 6-2 R) (AF)	Total 2025 Volume of Water Treated (AF)	**2025 Outcomes of Treated Wastewater**										
				Water Recycled Within UWMP Service Area (enter data as applicable)		**Water Recycled Outside of UWMP Service Area** (enter data as applicable)		**Effluent Discharge that is not a Permitted Recycled Water Use** (enter data as applicable)		**Required Discharge for Instream Flow** (enter data as applicable)		**Delivered to Another Entity for Additional Treatment** (enter data as applicable)		
				Treatment Level **Drop down list**	Volume (AF)	Treatment Level **Drop down list**	Volume (AF)	Treatment Level **Drop down list**	Volume (AF)	Treatment Level **Drop down list**	Volume (AF)	Treatment Level **Drop down list**	Volume (AF)	Name of other entity
Add additional rows as needed														
Mammoth CWD STP, Place ID 239283	Yes	1636	1,636	Tertiary	94		-		0		0		0	NA
Mammoth CWD STP, Place ID 239283	Yes			Secondary, Disinfected - 2.2	11		-		0		0		0	NA
Mammoth CWD STP, Place ID 239283	Yes						-	Secondary, Disinfected - 2.2	1393		0		0	NA
Total		1,636	1,636		105		0		1,393		0		0	

DWR NOTES:
Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.
IPR: Indirect Potable Reuse would have the treatment level of its end use requirement in the Level of Treatment drop-down.
Additional Guidance: See Appendix M, Section M.21 for detailed guidance on this table.

NOTES:

Submittal Table 6-4 Retail: Recycled Water Direct Beneficial Uses Within Service Area
Water Code Section 10633 (c),(d),(e)

☐	Check box if recycled water is not used and is not planned for use within the service area of the supplier. The supplier will only complete the column on "Potential Recycled Water Use" and submit an accompanying narrative on the feasibility of that potential recycled water use.

Name(s) of Facility/ies Producing (Treating) the Recycled Water (OPTIONAL) :	Mammoth Community Water District
Name of Supplier Operating the Recycled Water Distribution System (OPTIONAL) :	
Volume of Supplemental Water Added in 2025 (OPTIONAL) :	
Source of 2025 Supplemental Water (OPTIONAL) :	

Use Type **Drop down list**	**Potable or Non-Potable** (after treatment if treated) (OPTIONAL) Drop down list	Additional Information (as needed)	2025 (AF)	2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 (AF)	**Potential Recycled Water Use** Volume	**Potential Recycled Water Use** Narrative page number (OPTIONAL)
Add additional rows as needed										
Golf course irrigation	Non-Potable		94.6	152.1	211.8	211.8	211.8	211.8	250	Page 6-9
Other (Description Required)	Non-Potable	Trucked recycled water	10.8	6.4	6.4	6.4	6.4	6.4		
		Subtotal Potable	0	0	0	0	0	0	0	
		Subtotal Non-Potable	105	159	218	218	218	218	250	
		Total	105.4	158.5	218.2	218.2	218.2	218.2	250	0

DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.
Additional Guidance: See Appendix M, Section M.21 for detailed guidance on this table.
Potential recycled water use: a description of the feasibility of these uses must be included in the narrative.
Multiple Producers: If you have multiple recycled water producers, submit a separate table for each.

NOTES: In 2025, Snowcreek Golf Courses chose not to receive any recycled water. In 2035 Snowcreek Golf Course is expected to add 9 holes, and projections are based on the entier golf cours

Submittal Table 6-5 Retail: 2020 UWMP Recycled Water Use Projection Compared to 2025 Actual
Water Code Section 10633(e)

☐	Check the box if recycled water was not used in 2025 nor previously projected for use in 2020. Proceed to the next table.

Use Type Drop Down list	2020 Projection for 2025 (AF)	2025 Actual Use (AF)
Add additional rows as needed		
Golf course irrigation	157	95
Other (Description Required)	3	11
Total	160	105

DWR NOTES:

Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure reported in Submittal Table 2-3

Additional Guidance: See Appendix M, Section M.21 for detailed guidance on this table.

NOTES: There is a 34% difference between the Projected Use and Acutal Use. The difference is due to one of the two golf courses typically supplied with recycled water did not request recycled water during the 2023 & 2025 irrigation season. 2023 was a very wet year, reducing the need for additional irrigation. Trucked Recycled Water (Other use) increased significantly due to a significant increase of construction within the service area boundary.

Submittal Table 6-6 Retail: Methods to Encourage Future Recycled Water Use
Water Code Section 10633(f)

☑	Check the box if the Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.
4-2	Provide page location of narrative in the UWMP

Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use (AF)
Add additional rows as needed			
		Total (AF)	0
		Unit Conversion to AF	0

DWR NOTES:

Units of measure (AF, CCF, MG) MUST remain consistent with units reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.

The unit conversion to Acre Feet addresses the Water Code's requirement that this value be provided in acre-feet.

NOTES:

Submittal Table 6-7 Retail: Expected Future Water Supply Projects or Programs
Water Code Section 10631(f)

☐	Check the box if there are no expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Proceed to the next table.
☐	Check the box if 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?		Additional Description (as needed)	**Potable or Non-Potable** (after treatment if treated) (OPTIONAL) Drop Down list	Planned Implementation Year	Planned for Use in Year Type **Drop Down List**	Expected Increase in Water Supply to Supplier (This may be a range) (AF)
	Drop Down List (yes/no)	If Yes, Supplier Name					
Add additional rows as needed							
Snowcreek additional 9-hole golf course	No		Expansion of existing golf course.	Non-Potable	2035	All Year Types	106

DWR NOTES:
Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure reported in Submittal Table 2-3.

NOTES:

Submittal Table 6-8 Retail: Water Supplies — Actual
Water Code Section 10631(b)

Water Supply		2025		
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 Description (as needed)	**Potable or Non-Potable** (after treatment if treated) (OPTIONAL) Drop Down list	Actual Volume (AF)	
Add additional rows as needed				
Surface water (not desalinated)		Potable	1,789	
Groundwater (not desalinated)		Potable	318	
Recycled Water		Non-Potable	94	
		Subtotal Potable	2,107	
		Subtotal Non-Potable	94	
		Total	2,202	

DWR NOTES:

Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. Th the unit of measure selected in Submittal Table 2-3.

Total Entitlement: e.g. Water Right, Groundwater Allocation, Contracted Amount.

NOTES:

Submittal Table 6-9 Retail: Water Supplies — Projected
Water Code Section 10631 (b)

Water Supply			Projected Water Supply (Report to the Extent Practicable						
			2030		2035		2040		
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	**Potable or Non-Potable** (after treatment if treated) (OPTIONAL) Drop Down list	Reasonably Available Volume (AF)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)	Reasonably Available Volume (AF)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)	Reasonably Available Volume (AF)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)	Reasonably Available Volume (AF
Add additional rows as needed									
Surface water (not desalinated)		Potable	1,517		1,630		1,743		1,856
Groundwater (not desalinated)		Potable	1,041		1,197		1,353		1,509
Recycled Water		Non-Potable	159		218		218		218
Other (optional)	Raw	Non-Potable	65		91		91		91
		Subtotal Potable	2,558	0	2,827	0	3,096	0	3,365
		Subtotal Non-Potable	224	0	309	0	309	0	309
		Total	2,782	0	3,136	0	3,405	0	3,674

DWR NOTES:

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

Total Entitlement: e.g. Water Right, Groundwater Allocation, Contracted Amount.

NOTES:

Optional 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 2024-2025, use 2025	**Available Supplies if Year Type Repeats**	
		☐ Check the box if quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. **Location:** [insert location from UWMP]	
		Quantification of available supplies is provided in this table as either volume only, percent only, or both.	
		Volume Available (AF)	**% of Average Supply**
Average Year	1940-2015	2068	100%
Single-Dry Year	2015	1955	95%
Consecutive Dry Years 1st Year	2013	1989	96%
Consecutive Dry Years 2nd Year	2014	1959	95%
Consecutive Dry Years 3rd Year	2015	1955	96%
Consecutive Dry Years 4th Year	2013	1955	95%
Consecutive Dry Years 5th Year	2014	1955	95%

DWR NOTES: Supplier may use multiple versions of Submittal Table 7-1 R 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 Submittal Table 7-1 R, in the "Note" section of each submittal table, state that multiple versions of Submittal Table 7-1 R are being used and identify the particular water source that is being reported in each submittal table. **Units of measure (AF, CCF, MG**) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table reports the units of measure reported in Submittal Table 2-3.

NOTES:

Submittal Table 7-2 Retail: Normal Year Supply and Use Comparison Water Code Section 10635 (a)					
	2030 (AF)	**2035 (AF)**	**2040 (AF)**	**2045 (AF)**	**2050 (AF)**
Supply totals (autofill from Submittal Table 6-9 R)	2,782	3,136	3,405	3,674	0
Use totals (autofill from Submittal Table 4-2 R)	2,543	2,903	3,276	3,647	0
Surplus/(shortfall)	240	233	129	27	0
OPTIONAL Planned WSCP Actions					
WSCP - supply augmentation benefit					
WSCP - use reduction savings benefit	254	290	328	365	
Revised Surplus/(shortfall)	494	523	457	392	
DWR NOTES : Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.					
NOTES: WSCP Conservation Level 0, 10% reduction					

Submittal Table 7-3 Retail: Single Dry Year Supply and Use Comparison Water Code Section 10635(a)					
	2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 (AF)
Supply totals	2,643	2,979	3,235	3,490	
Use totals	2,543	2,903	3,276	3,647	
Surplus/(shortfall)	101	76	(41)	(157)	
OPTIONAL Planned WSCP Actions					
WSCP - supply augmentation benefit					
WSCP - use reduction savings benefit	508	580	655	729	
Revised Surplus/(shortfall)	609	656	614	573	
DWR NOTES : Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.					
NOTES: Supply assums 95% availablity of projected supply based on the single dry year. Water Conservation Level 1 reduces use by 20%					

Submittal Table 7-4 Retail: Multiple Dry Years Supply and Use Comparison Water Code Section 10635(a)						
		2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 (AF)
First year	Supply totals	2,671	3,011	3,269	3,527	
	Use totals	2,543	2,903	3,276	3,647	
	Surplus/(shortfall)	128	108	(7)	(120)	0
	OPTIONAL Planned WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit	254	290	327	364	
	Revised Surplus/(shortfall)	382	398	320	244	
Second year	Supply totals	2,710	3,030	3,286	3,514	
	Use totals	2,615	2,978	3,350	3,721	
	Surplus/(shortfall)	95	53	(64)	(207)	0
	OPTIONAL WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit	523	595	670	744	
	Revised Surplus/(shortfall)	618	648	606	537	
Third year	Supply totals	2,807	3,114	3,372	3,630	
	Use totals	2,678	3,052	3,424	3,795	
	Surplus/(shortfall)	129	62	(52)	(165)	0
	OPTIONAL Planned WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit	806	915	1,027	1,138	
	Revised Surplus/(shortfall)	935	977	975	973	
Fourth year	Supply totals	2,845	3,133	3,388	3,644	
	Use totals	2,759	3,127	3,498	3,869	
	Surplus/(shortfall)	86	6	(110)	(225)	0
	OPTIONAL Planned WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit	1,104	1,250	1,399	1,547	
	Revised Surplus/(shortfall)	1,190	1,256	1,289	1,322	
Fifth year	Supply totals	2,912	3,184	3,439	3,695	
	Use totals	2,831	3,201	3,573	3,943	
	Surplus/(shortfall)	81	(18)	(134)	(248)	0
	OPTIONAL Planned WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit	1,415	1,600	1,786	1,972	
	Revised Surplus/(shortfall)	1,496	1,582	1,652	1,724	
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.						
NOTES: Conservation Level 0 (10% reduction) in First Year and consuctive increasing the Conservation Level.						

Submittal Table 7-5 Retail: Five-Year Drought Risk Assessment Water Code Section 10635(b)(3)	
2026	**Total**
Total Water Use (AF)	2,084
Total Supplies (AF)	2,318
Surplus/Shortfall w/o WSCP Action	233
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit (AF)	
WSCP - use reduction savings benefit (AF)	208
Revised Surplus/(shortfall)	442
2027	**Total**
Total Water Use (AF)	2,199
Total Supplies (AF)	2,434
Surplus/Shortfall w/o WSCP Action	235
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit (AF)	
WSCP - use reduction savings benefit (AF)	439
Revised Surplus/(shortfall)	674
2028	**Total**
Total Water Use (AF)	2,314
Total Supplies (AF)	2,550
Surplus/Shortfall w/o WSCP Action	236
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit (AF)	
WSCP - use reduction savings benefit (AF)	694
Revised Surplus/(shortfall)	930
2029	**Total**
Total Water Use (AF)	2,428
Total Supplies (AF)	2,666
Surplus/Shortfall w/o WSCP Action	238
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit (AF)	
WSCP - use reduction savings benefit (AF)	
Revised Surplus/(shortfall)	
2030	**Total**
Total Water Use (AF)	2,543
Total Supplies (AF)	2,782
Surplus/Shortfall w/o WSCP Action	239
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit (AF)	
WSCP - use reduction savings benefit (AF)	1,272
Revised Surplus/(shortfall)	1,511
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.	
NOTES: Conservation level increases linearly starting at Level 0 (10% reduction).	

Submittal Table 8-1: Cross-reference for Standard vs Supplier Shortage Levels Water Code Section 10632(a)(3)(B)			
☐	Check the box if the Supplier uses the Standard six levels of water shortage. Proceed to the next table.		
Standard Shortage Levels	**Percent Shortage Range**	**Suppliers Shortage Levels**	**Percent Shortage Range**
1	Up to 10%	0	10
2	Up to 20%	1	20
3	Up to 30%	2	30
4	Up to 40%	3	40
5	Up to 50%	4	50
6	>50%	5	50+
NOTES: The District maintains permanent Water Conservation Level 0.			

Submittal Table 8-2 Retail: Supply Augmentation and Other Actions Water Code Section 10632(a)(4)(A),(C) and (E)				
	Is the Supplier completing this table using the standard six levels? (yes/no)			
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?		Additional Explanation or Reference (OPTIONAL)
		Volume or Percentage Drop down	Shortage Gap Reduction Value (May be a range) (AF)	
Add additional rows as needed				
0	Other Actions (describe)	Percentage	0-10	Landscape irrigation prohibited 11am-4pm; even address Mon/Wed/Sat; odd addresses Tue/Thu/Sun; no irrigation runoff/ponding prohibited; hoses require shutoff nozzles required; leaks fixed within 5 days; no hard surface wash shutoff hose; vehicle washing requires shutoff hose; tim misting/broken/misadjusted sprinklers; MAWA ≤125%; n pools/spas; drinking water served on request; hotel/mot signage.
1	Other Actions (describe)	Percentage	11 to 20	All previsouly stated actions, in addition to: Landscape irr 7am & 5pm-11pm; no hard surface washing unless health lawn planting (unless approved landscape plan); turf rep ≤5%.
2	Other Actions (describe)	Percentage	21 to 30	All previously stated actions, in addition to: Landscape irr 7am & 7pm-11pm; MAWA ≤100%; no turf replacement/re within 3 days
3	Other Actions (describe)	Percentage	31 to 40	All previously stated actions, in addition to: Landscape irr 6am & 8pm-11pm; odd addresses Thu/Sun only; even We ≤80%; leaks fixed within 2 days (3 days rentals).
4	Other Actions (describe)	Percentage	41 to 50	All previously stated actions, in addition to: Landscape irr 6am & 8pm-10pm; odd Thu only; even Wed only; MAWA prohibited.
5	Other Actions (describe)	Percentage	greather than 50	All previously stated actions, in addition to: All landscape prohibited; residential pool/spa filling/refilling prohibite only at licensed/recycling businesses.
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.				
NOTES:				

Submittal Table 8-3 Retail: Demand Reduction Actions Water Code Section 10632(a)(4)(B),(D), and (E)					
	Is the Supplier completing this table using the standard six levels? (yes/no)				
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?		Additional Explanation or Reference (OPTIONAL)	Penalty, Charge, or Other Enforcement? **For Retail Suppliers Only** Drop Down List
		Volume or Percentage Drop down	Shortage Gap Reduction Value (May be a range) (AF)		
Add additional rows as needed					
0-5	Provide Rebates on Plumbing Fixtures and Devices	Percentage	0-50		Yes
0-5	Provide Rebates for Landscape Irrigation Efficiency	Percentage	0-50		Yes
0-5	Provide Rebates for Turf Replacement	Percentage	0-50		Yes
0-5	Landscape - Restrict or prohibit runoff from landscape irrigation	Percentage	0-50		Yes
0-5	Landscape - Limit landscape irrigation to specific times	Percentage	0-50		Yes
0-5	Landscape - Limit landscape irrigation to specific days	Percentage	0-50		Yes
0-5	Landscape - Prohibit certain types of landscape irrigation	Percentage	0-50	Hoses must be equipped with automatically shut off devices.	Yes
5	Landscape - Prohibit all landscape irrigation	Percentage	50		Yes
3-5	Landscape - Other landscape restriction or prohibition	Percentage	30-50	Hand-watering with auto shut-off is limited to days and times of the week.	Yes
0-5	CII - Lodging establishment must offer opt out of linen service	Percentage	0-50		Yes
0-5	CII - Restaurants may only serve water upon request	Percentage	0-50		Yes
0-5	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	0-50	Must have recirculation system	Yes
5	Pools and Spas - Require covers for pools and spas	Percentage	50		Yes
0-5	Other water feature or swimming pool restriction	Percentage	0-50	Overfilling of swimming pools and spas such that overflow water is discharged onto an adjoining sidewalk, driveway, street, alley, gutter, or ditch is prohibited. Covers are required on top of pools and spas to reduce evaporation during the hours that the pool or spa is closed.	Yes
0-5	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	Percentage	0-50		Yes
0-5	Other - Require automatic shut of hoses	Percentage	0-50		Yes
0-5	Other - Prohibit use of potable water for washing hard surfaces	Percentage	0-50		Yes
5	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Percentage	50		Yes
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.					
NOTES:					

Submittal Table 10-1 Retail: Notification to Cities and Counties Water Code Section 10621(b) and 10642		
City Name	60 Day Notice **Drop Down (yes/no)**	Notice of Public Hearing **Drop Down (yes/no)**
Add additional rows as needed		
Town of Mammoth Lakes	Yes	Yes
County Name **Drop Down List**	60 Day Notice **Drop Down (yes/no)**	Notice of Public Hearing **Drop Down (yes/no)**
Add additional rows as needed		
Mono County	Yes	Yes
NOTES:		

APPENDIX G DWR ENERGY USE TABLES