

**2025 URBAN WATER MANAGEMENT PLAN
FOR
HUMBOLDT COMMUNITY SERVICES DISTRICT
EUREKA, CALIFORNIA**



Humboldt Community Services District
Eureka, California 95503

June 2026

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1.0 INTRODUCTION AND OVERVIEW

This Urban Water Management Plan (UWMP) has been prepared for the Humboldt Community Services District (HCSD) in compliance with requirements of the California Department of Water Resources (DWR) pursuant to the Urban Water Management Planning Act (UWMP Act) and the Water Conservation Bill of 2009. HCSD recognizes that water planning is an essential function of water suppliers that becomes critical as California grapples with the ongoing drought and expected long-term climate changes.

This update was prepared and adopted during the spring of 2026. The data used for preparing this report comes primarily from HCSD and Humboldt Bay Municipal Water District's (HBMWD's) operational records. Figures relating to watershed runoff were obtained from the United States Geological Survey. Current and projected population figures for the HCSD service area were originally based on 2024 data acquired from the 2024 U.S. Census Bureau.

HCSD is located in a high rainfall, moderate temperature climate with abundant water supplies.

1.1 Urban Water Management Planning Act of 1983

The UWMP Act requires water agencies to develop Urban Water Management Plans (UWMPs). The UWMPs provide a framework for long term water planning and inform the public of a supplier's plans for long-term resource planning that ensures adequate water supplies for existing and future demands. The California Water Code (CWC) requires urban water suppliers to report, describe, and evaluate;

- Water deliveries and uses;
- Water supply sources;
- Efficient water uses;
- Demand management measures; and
- Water shortage contingency planning.

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

The Water Conservation Act of 2009 requires retail urban water suppliers to report the following in their UWMPs:

- Base Daily per Capita Water Use (Baseline GPCD);
- 2015 Interim Urban Water Use Target;
- 2020 Urban Water Use Target; and
- Compliance Daily per Capita Water Use.

1.3 Lay Description

HCSD is relying on their primary water supplier the Humboldt Bay Municipal Water District (HBMWD) to meet 100% of their projected demand. According to Section 7.0 of the HBMWD 2025 UWMP:

The District has an abundant supply of water at Ruth Reservoir which flows down the Mad River and is pumped at the Essex Operations Center. This source of water has been very consistent and there is no need to replace or supplement this source.

In addition to water supplied by HBMWD, HCSD operates its own groundwater wells, which provide 24% of HCSD's demand (5-year average), thereby increasing the supply capacity and reliability of its water system.

Based on assessments in this plan, HCSD water supplies (HBMWD and HCSD groundwater wells) are not currently experiencing drought impacts and have remained reliable even during periods of record-low precipitation.

It is concluded that the HCSD water supplies (HBMWD and HCSD groundwater wells) will remain reliable even during periods of record-low precipitation (the single driest year and the driest 5 years) throughout the planning period (25 years).

2.0 PLAN PREPARATION

This Section provides information on the HCSD process for developing the UWMP, including coordination and outreach efforts.

2.1 Basis for Preparing a Plan

Requirement: “Urban water supplier” means a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 AF of water annually. An urban water supplier includes a supplier or contractor for water, regardless of the basis of right, which distributes or sells for ultimate resale to customers. This part applies only to water supplied from public water systems (CWC 10617).

HCSD has greater than 3,000 water connections (customers), is an urban water supplier, and is required to prepare an UWMP every five years, and submit a 2025 UWMP under CWC 10617.

HCSD is a Public Water System (PWS) and does not provide water services to any other PWS. HCSD is one of several PWS that receive water from a regional wholesale water provider, the Humboldt Bay Municipal Water District (HBMWD).

Table 2-1: Shows HCSD Wholesaler and Water Supplier Information.

Submittal Table 2-4 Wholesale: Water Supplier Information Exchange Water Code Section 10631(h)	
☐	Check the box if the Supplier has informed more than 10 other water suppliers of water supplies available. Completion of the table below is optional. If not completed, include a list of the water suppliers that were informed.
Provide page number for location of the list.	
☒	Check the box if the Supplier has informed 10 or fewer other water suppliers of water supplies available. Complete the table below.
Water Supplier Name	
Add additional rows as needed	
Humboldt County Planning Dept	
City of Arcata	
City of Eureka	
Humboldt CSD	
McKinleyville CSD	
City of Blue Lake	
Fieldbrook-Glendale CSD	
Manila CSD	

2.1.1 Suppliers With Both Wholesale and Retail Sales

HCSD is a retailer, while the District's sales to College of the Redwoods are below the threshold for being considered a wholesaler.

2.1.2 Public Water System

HCSD operated a single public water system under ID CA1210009.

2.2 Individual or Regional Plans

HCSD UWMP was prepared in coordination with HBMWD, the regional wholesale water provider, as well as the other public water systems that received municipal water from HBMWD. The agencies worked together to shared data, planning information and

resources to ensure consistency among their individual plans. This collaborative effort allowed each agency to address its own community's water supply needs, while also providing a framework for evaluating water supply issues when necessary. Participating agencies included City of Arcata, City of Eureka, HBMWD, McKinleyville Community Services District, City of Blue Lake, Fieldbrook-Glendale CSD and Manila CSD.

2.2.1 Regional Reporting

HCSD coordinates with other regional water providers and is solely preparing an individual UWMP.

2.3 Fiscal or Calendar Year and Units of Measure

HCSD is reporting water data on a fiscal-year basis. Water volume data will be reported in acre-feet (AF) throughout the entire 2025 UWMP.

The supplier identification is a retail.

2.4 Coordination and Outreach

Requirement: *An urban water supplier that relies upon a wholesale agency for a source of water shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. The wholesale agency shall provide information to the urban water supplier for inclusion in the urban water supplier's plan that identifies and quantifies, to the extent practicable, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year increments, and during various water-year types in accordance with subdivision (c). An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (c). (CWC 10631).*

2.4.1 Wholesale and Retail Coordination

Requirement: *Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable. (CWC 10620 (d)(2)).*

HCSD provided their wholesaler (HBMWD) with their projected water demand from each source, in five-year increments for 25 years and HBMWD provided HCSD quantification of water supplies available in 5-year increments for 20 years as shown in (Table 2-4).

Table 2.4 - HBMWD projected water demand for five-year increments for 25 years.

Optional Submittal Table 4-2 Wholesale: Total Uses for Potable and Non-Potable Water — Projected Water Code Section 10631(d)(1)						
Use Type Drop down list May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool.	Additional Description (as needed)	Projected Water Use (Report To the Extent that Records are Available)				
		Potable or Non-Potable (OPTIONAL) Drop down list	2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)
						2050 opt (AF)
Add additional rows as needed						
Sales to other agencies	City of Arcata	Potable	1977	2197	2423	2658
Sales to other agencies	City of Eureka	Potable	3703	3668	3634	3600
Sales to other agencies	Humboldt CSD	Potable	798	826	856	885
Sales to other agencies	McKinleyville CSD	Potable	1531	1565	1611	1673
Sales to other agencies	City of Blue Lake	Potable	209	209	209	209
Sales to other agencies	Fieldbrook-Glendale CSD	Potable	215	215	215	215
Sales to other agencies	Manila CSD	Potable	129	129	129	129
Incidental Retail Use	HBMWD Retail Customers	Potable	295	295	295	295
Distribution System Water Loss	Estimated Loss	Potable	2214	2276	2343	2416
			11,071	11,379	11,716	12,079
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:						

2.5 Notice to Cities and Counties

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

HBMWD provided notices of preparation of the 2025 UWMP to Humboldt County, City of Arcata, City of Eureka, McKinleyville Community Services District, City of Blue Lake, Fieldbrook-Glendale CSD and Manila CSD. Copies of the notification letters are included in Appendix A.

2.5.1 Submittal Table 2-1: PWSs

Table 2.5: Retail: Public Water System

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			
CA1210009	Humboldt C.S.D	7,996	1,872
Total		7,996	1,872
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:

Table 2.6: HCSD Plan Identification

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:		

2.5.3 Submittal Table 2-3: Supplier Identification

Table 2-3: Displays HCSD's supplier identification and classification as a retail water supplier.

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: Fiscal years begin in July and end in June, with reporting periods covering April through June as estimates.

2.5.4 Submittal Table 2-4: Water Supplier Information Exchange

Table 2-4: Displays information regarding HBMWD, HCSD's wholesale water supplier.

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
Humboldt Bay Municipal Water District (HBMWD)
NOTES:

3.0 SYSTEM DESCRIPTION

This Section includes a description of HCSD's service area, climate, Public Water System, and HCSD's organizational structure and history.

3.1 General Description

Requirement: *Water Code Section 10631. A plan shall be adopted in accordance with this chapter that shall do all of the following: (a) Describe the service area of the supplier, including current and projected population, climate, and other social, economic, and demographic factors affecting the supplier's water management planning. The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available. The description shall include the current and projected land uses within the existing or anticipated service area affecting the supplier's water management planning. Urban water suppliers shall coordinate with local or regional land use authorities to determine the most appropriate land use information, including, where appropriate, land use information obtained from local or regional land use authorities, as developed pursuant to Article 5 (commencing with Section 65300) of Chapter 3 of Division 1 of Title 7 of the Government Code.*

The HCSD, located in Humboldt County and approximately 280 miles north of San Francisco, borders the southern and eastern boundaries of the City of Eureka (Figure 1). The eastern region of the HCSD encompasses the unincorporated areas of Myrtle town, Mitchell Heights, Pigeon Point, and Freshwater. The unincorporated areas of Pine Hill, Humboldt Hill, King Salmon, Fields Landing, and College of the Redwoods constitute the southern regions of the HCSD service area. The central region, where the HCSD office is located, includes the Cutten, Ridgewood, and Westgate areas of the District. The total area served by the HCSD is approximately 15.4 square miles.

The HCSD, a public agency, was created by election on September 23, 1952. The HCSD began operations on October 18, 1952, under the Community Services Law of the State of California, as amended, and under authority of Government Code, Section 6100 et seq. Although the HCSD currently provides sewer, water, and street lighting services, the HCSD is chartered to additionally provide recreation, storm drainage and garbage collection.

HCSD is primarily urban residential in nature, accounting for approximately 90% of total HCSD accounts. Water supplied to HCSD's customers consists of water supplied by HBMWD and COE, as well as groundwater extracted from two wells owned by the HCSD. These wells, which are up to 440 feet deep, are all located near the base of Humboldt Hill. The water from these wells is chlorinated before distribution to the reservoir storage and the distribution system.

Drinking water is pumped to 10 reservoirs by thirteen water booster pump stations. The 10 reservoirs have a total storage capacity of approximately 5 million gallons.

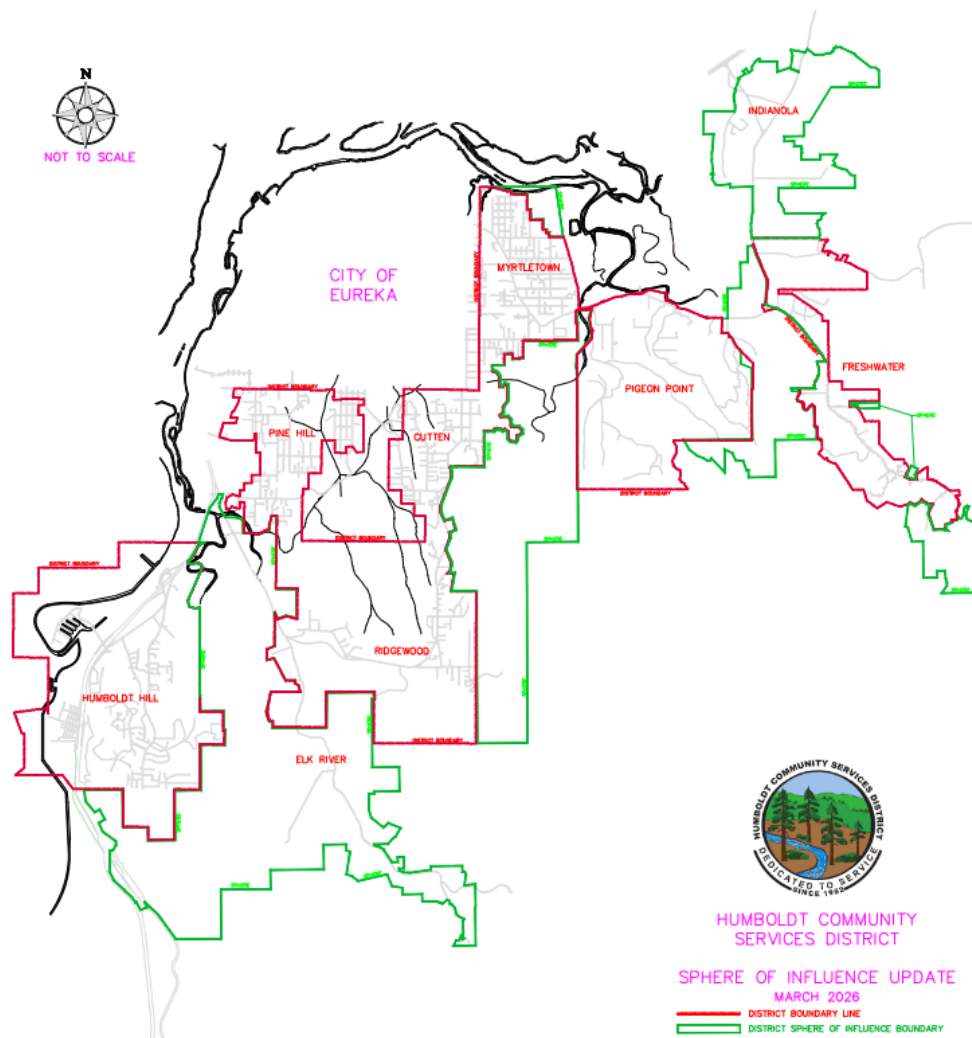
There are 22 pressure zones, which distribute water throughout the District (Figure 3), in Appendix. The water reservoirs operate 14 different pressure zones using gravity flow. The other two pressure zones are supplied hydro-pneumatically by pump stations and are subject to shortages in the event of power outages. The District currently owns three trailer-mounted generators, of which the largest is 125 KW, to protect against water shortages in the event of a power failure. A map of the HCSD water distribution system is included as Figure 5, in Appendix.

HCSD supplies water to 7996 active connections (2025). Approximately 7,190 single-family residential connections, 475 multifamily residential, 293 connections are commercial, 38 landscape irrigation connections. There are no industrial or agricultural connections

In 2025, a total of 1,857.6 AF/yr water was distributed to its customer base.

3.2 Service Area Boundary

The HCSD service area boundary is shown on Figure 2.



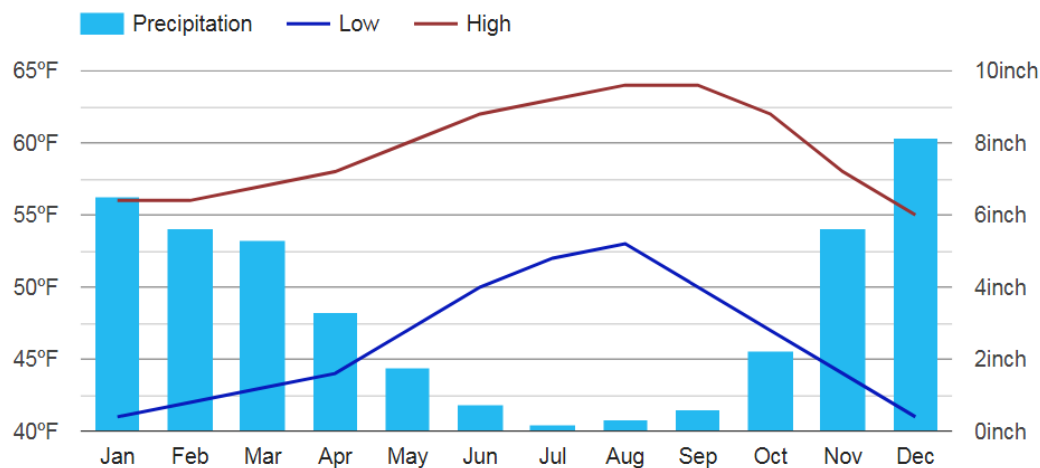
3.3 Service Area Climate and Climate Change

Requirement: Describe the service area of the supplier, including... climate.... (CWC 10631 (b)).

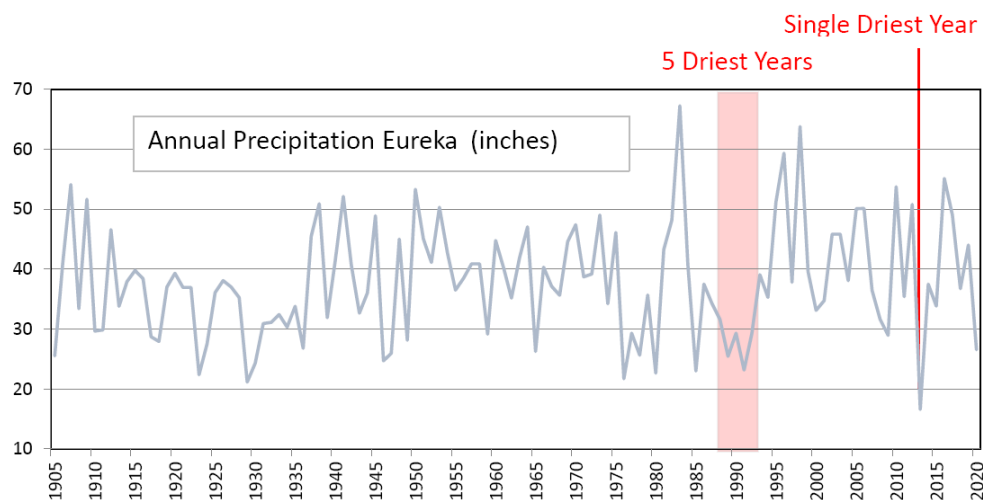
The District weather is typical of coastal Northern California, characterized by moderate temperatures, frequent fog and moderate to heavy participation. Humboldt County's watersheds receive high annual rainfall. Data from:

(<https://www.usclimatedata.com/climate/eureka/california/united-states/usca0360>)

Eureka Climate Graph - California Climate Chart



Historic annual precipitation in Eureka is plotted below:



Ruth Lake, in Trinity County, where HBMWD operates the R.W. Matthews Dam and the Ruth Reservoir (Ruth Lake), average rainfall 61 inches per year

(<http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca3130>). Some mountainous areas within the region often receive more than 100 inches of rain per year.

Climate Change

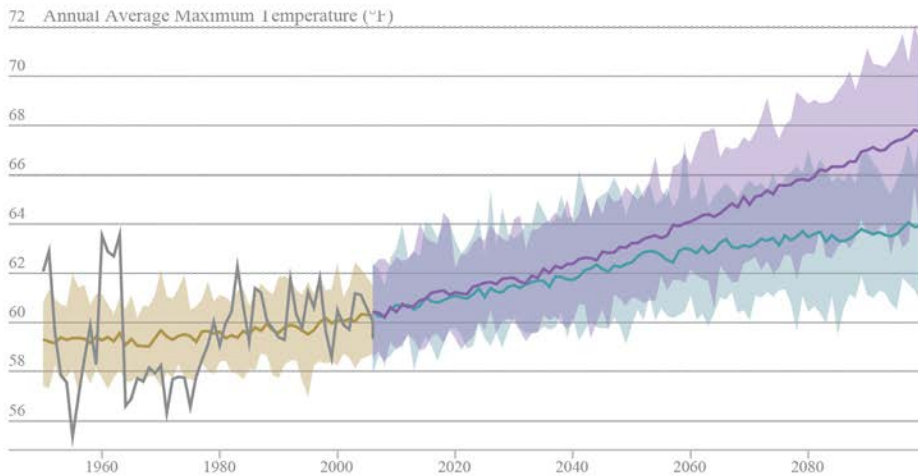
The following graphs and tables illustrate the projected impacts of climate change on Eureka, the HCSD service area and where HCSD groundwater wells are located, and in the Upper Mad River Watershed which is the area of the HBMWD reservoir (Ruth Lake). The source of the projections is CalAdapt.

Eureka, California

Annual Average Maximum Temperature

Average of all the hottest daily temperatures in a year.

■ Observed ■ Medium Emissions (RCP 4.5) ■ High Emissions (RCP 8.5)



Observed (1961-1990) 30yr Average: 59.2 °F

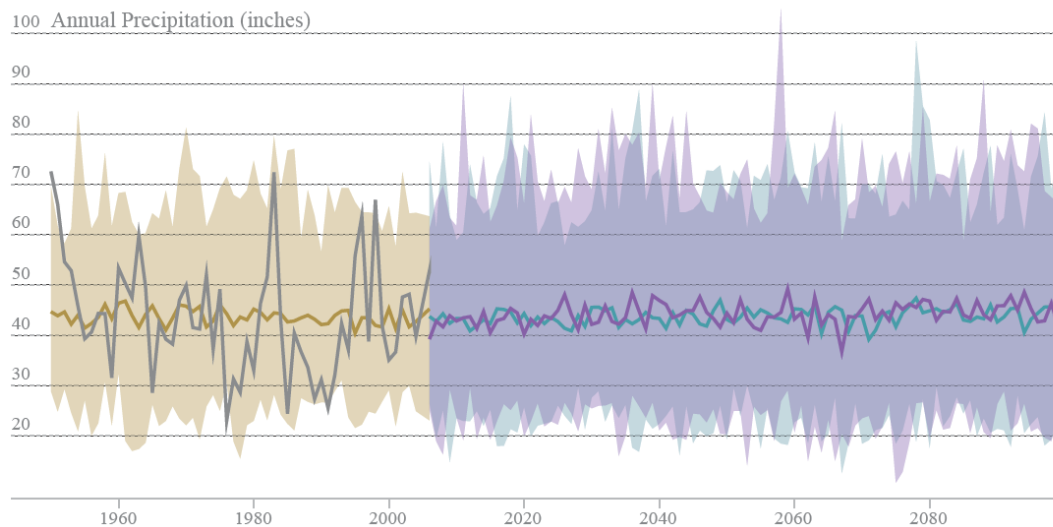
		30yr Average	30yr Range
Baseline (1961-1990)			
MODELED HISTORICAL	-	59.4 °F	59.2 - 59.7 °F
Mid-Century (2035-2064)			
MEDIUM EMISSIONS (RCP 4.5)	+3.0 °F	62.4 °F	61.0 - 64.6 °F
HIGH EMISSIONS (RCP 8.5)	+3.8 °F	63.2 °F	61.6 - 64.6 °F
End-Century (2070-2099)			
MEDIUM EMISSIONS (RCP 4.5)	+4.1 °F	63.5 °F	61.3 - 65.8 °F
HIGH EMISSIONS (RCP 8.5)	+6.9 °F	66.3 °F	63.4 - 68.8 °F

1. Data derived from 32 LOCA downscaled climate projections generated to support California's Fourth Climate Change Assessment. Details are described in Pierce et al., 2018.
2. Observed historical data derived from Gridded Observed Meteorological Data. Details are described in Livneh et al., 2015.
3. Data presented are aggregated over all LOCA grid cells that intersect Eureka boundary.

Eureka, California Annual Precipitation

Total precipitation projected for a year

Observed Medium Emissions (RCP 4.5) High Emissions (RCP 8.5)



Observed (1961-1990) 30yr Average: 41.2 inches

		30yr Average	30yr Range
Baseline (1961-1990)			
MODELED HISTORICAL	-	43.9 inches	40.6 - 46.9 inches
Mid-Century (2035-2064)			
MEDIUM EMISSIONS (RCP 4.5)	-0.2 inches	43.7 inches	35.6 - 50.8 inches
HIGH EMISSIONS (RCP 8.5)	+0.5 inches	44.4 inches	38.3 - 51.5 inches
End-Century (2070-2099)			
MEDIUM EMISSIONS (RCP 4.5)	+0.2 inches	44.1 inches	36.5 - 50.4 inches
HIGH EMISSIONS (RCP 8.5)	+1.2 inches	45.1 inches	38.3 - 52.6 inches

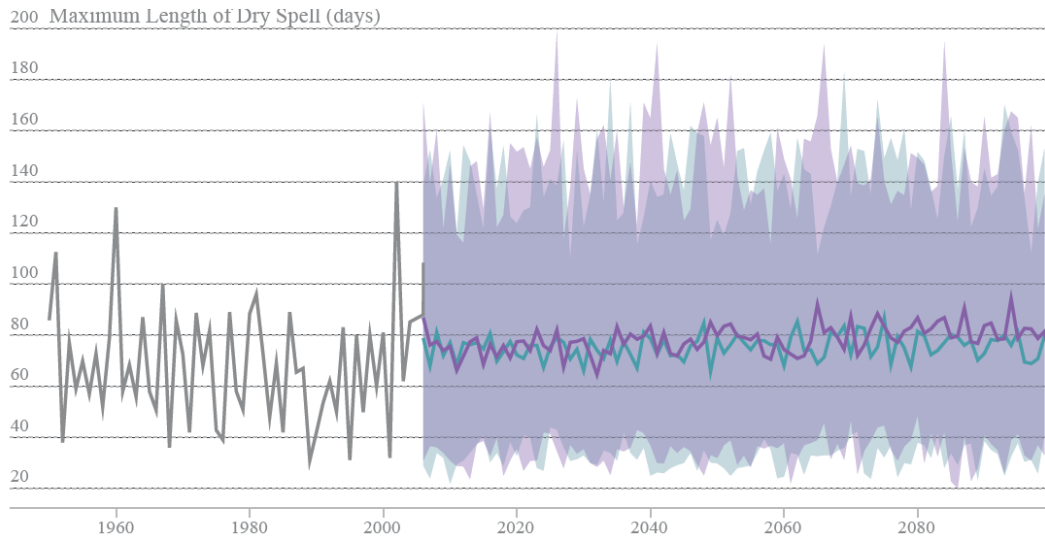
1. Data derived from 32 LOCA downscaled climate projections generated to support California's Fourth Climate Change Assessment. Details are described in Pierce et al., 2018.
2. Observed historical data derived from Gridded Observed Meteorological Data. Details are described in Livneh et al., 2015.
3. Data presented are aggregated over all LOCA grid cells that intersect Eureka boundary.

Eureka, California

Maximum Length of Dry Spell

The maximum length of dry spell for each year. In other words, the maximum number of consecutive days with precipitation < 1mm for each year.

Observed Medium Emissions (RCP 4.5) High Emissions (RCP 8.5)



Observed (1961-1990) 30yr Average: 65 days

		30yr Average	30yr Range
Baseline (1961-1990)			
MODELED HISTORICAL	-	68 days	60 - 82 days
Mid-Century (2035-2064)			
MEDIUM EMISSIONS (RCP 4.5)	+7 days	75 days	62 - 91 days
HIGH EMISSIONS (RCP 8.5)	+10 days	78 days	62 - 94 days
End-Century (2070-2099)			
MEDIUM EMISSIONS (RCP 4.5)	+8 days	76 days	62 - 100 days
HIGH EMISSIONS (RCP 8.5)	+14 days	82 days	57 - 108 days

1. Data derived from 32 LOCA downscaled climate projections generated to support California's Fourth Climate Change Assessment. Details are described in Pierce et al., 2018.
2. Observed historical data derived from Gridded Observed Meteorological Data. Details are described in Livneh et al., 2015.
3. Data presented are aggregated over all LOCA grid cells that intersect Eureka boundary.

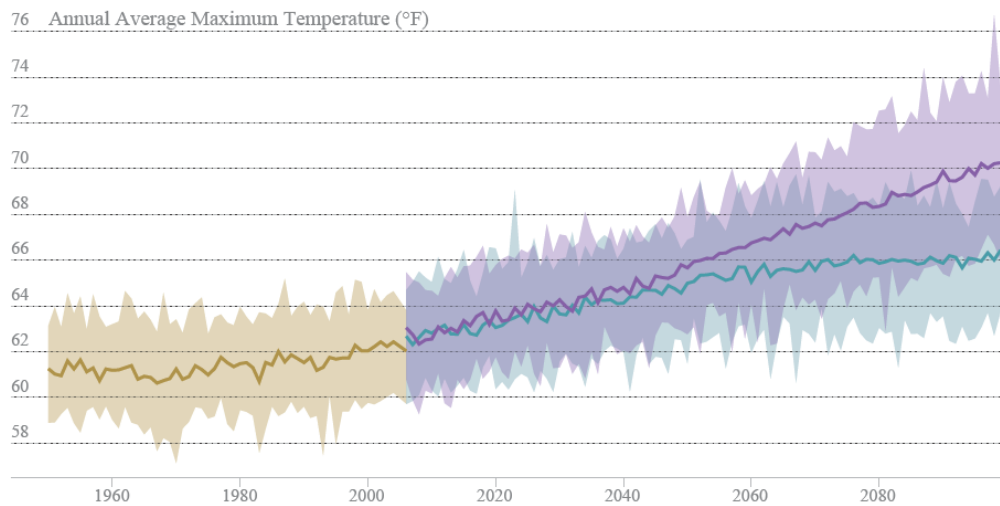
The following graphs and tables illustrate the projected impacts of climate change on the Upper Mad River Watershed, the location of Ruth Lake, the HBMWD reservoir (source CalAdapt).

Upper Mad River Watershed

Annual Average Maximum Temperature

Average of all the hottest daily temperatures in a year.

■ Observed ■ Medium Emissions (RCP 4.5) ■ High Emissions (RCP 8.5)



Observed (1961-1990) 30yr Average: 61.4 °F

		30yr Average	30yr Range
Baseline (1961-1990)			
MODELED HISTORICAL	-	61.3 °F	61.0 - 61.5 °F
Mid-Century (2035-2064)			
MEDIUM EMISSIONS (RCP 4.5)	+3.6 °F	64.9 °F	63.5 - 66.0 °F
HIGH EMISSIONS (RCP 8.5)	+4.4 °F	65.7 °F	63.7 - 67.0 °F
End-Century (2070-2099)			
MEDIUM EMISSIONS (RCP 4.5)	+4.7 °F	66.0 °F	63.6 - 67.4 °F
HIGH EMISSIONS (RCP 8.5)	+7.6 °F	68.9 °F	65.9 - 71.1 °F

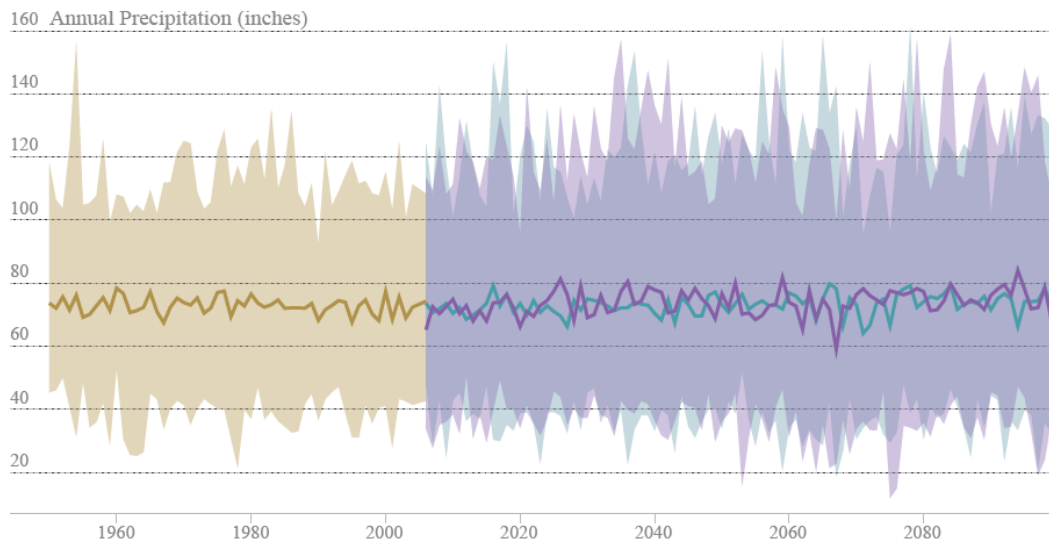
1. Data derived from 32 LOCA downscaled climate projections generated to support California's Fourth Climate Change Assessment. Details are described in Pierce et al., 2018.
2. Observed historical data derived from Gridded Observed Meteorological Data. Details are described in Livneh et al., 2015.
3. Data presented are aggregated over all LOCA grid cells that intersect Upper Mad River Watershed boundary.

Upper Mad River Watershed

Annual Precipitation

Total precipitation projected for a year

Observed Medium Emissions (RCP 4.5) High Emissions (RCP 8.5)



Observed (1961-1990) 30yr Average: 73.8 inches

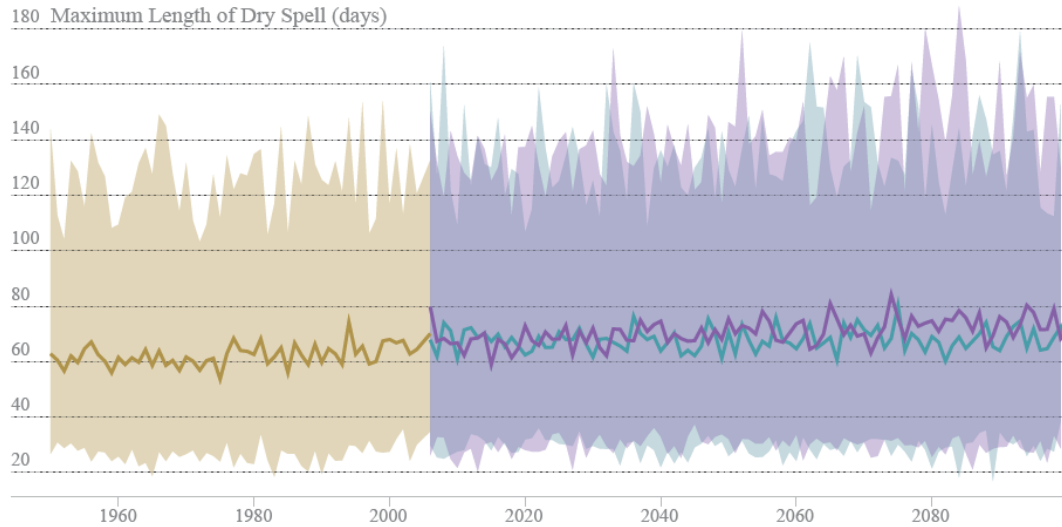
		30yr Average	30yr Range
Baseline (1961-1990)			
MODELED HISTORICAL	-	73.0 inches	67.5 - 78.4 inches
Mid-Century (2035-2064)			
MEDIUM EMISSIONS (RCP 4.5)	-0.1 inches	72.9 inches	61.1 - 90.9 inches
HIGH EMISSIONS (RCP 8.5)	+1.1 inches	74.1 inches	61.6 - 86.9 inches
End-Century (2070-2099)			
MEDIUM EMISSIONS (RCP 4.5)	+0.8 inches	73.8 inches	63.4 - 87.2 inches
HIGH EMISSIONS (RCP 8.5)	+2.8 inches	75.8 inches	60.9 - 90.8 inches

1. Data derived from 32 LOCA downscaled climate projections generated to support California's Fourth Climate Change Assessment. Details are described in Pierce et al., 2018.
2. Observed historical data derived from Gridded Observed Meteorological Data. Details are described in Livneh et al., 2015.
3. Data presented are aggregated over all LOCA grid cells that intersect Upper Mad River Watershed boundary.

Upper Mad River Watershed Maximum Length of Dry Spell

The maximum length of dry spell for each year. In other words, the maximum number of consecutive days with precipitation < 1mm for each year.

■ Observed ■ Medium Emissions (RCP 4.5) ■ High Emissions (RCP 8.5)



Observed (1961-1990) 30yr Average: 71 days

		30yr Average	30yr Range
Baseline (1961-1990)			
MODELED HISTORICAL	-	61 days	51 - 72 days
Mid-Century (2035-2064)			
MEDIUM EMISSIONS (RCP 4.5)	+7 days	68 days	54 - 85 days
HIGH EMISSIONS (RCP 8.5)	+9 days	70 days	56 - 94 days
End-Century (2070-2099)			
MEDIUM EMISSIONS (RCP 4.5)	+7 days	68 days	55 - 91 days
HIGH EMISSIONS (RCP 8.5)	+12 days	73 days	46 - 103 days

1. Data derived from 32 LOCA downscaled climate projections generated to support California's Fourth Climate Change Assessment. Details are described in Pierce et al., 2018.
2. Observed historical data derived from Gridded Observed Meteorological Data. Details are described in Livneh et al., 2015.
3. Data presented are aggregated over all LOCA grid cells that intersect Upper Mad River Watershed boundary.

3.4 Service Area Population and Demographics

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

3.4.1 Service Area Population

A Geographic Information System (GIS) coverage of the HCSD drinking water distribution service area was used with 2010 US Census Bureau population and connection data to determine the persons per residential connection 2.671. The persons per connection was used with the number of residential connections to estimate the population from 1988-2009 and 2011-2025.

Population growth projections (2021-2045) are based on growth projections contained in the City of Eureka 2040 General Plan dated October 15, 2018 (Table 3-1).

3.5 Other Demographic Factors

Requirement: Describe the service area of the supplier, including. . . other social, economic and demographic factors affecting the supplier's water management planning. (CWC 10631).

The HCSD is primarily urban residential in nature, which makes up approximately 96% of total HCSD accounts. Commercial and institutional accounts make up the 4% balance and include Humboldt Bay Forest Products, PG&E Power Plant, College of the Redwoods, and Redwood Acres Fairgrounds. The HCSD supplied water to 7,996 connections in 2026.

The customer base for the HCSD water distribution in 2025 is described in the table below:

Type of Service Connection	Number of Service Connections
Single-family residential	7190
Multi-family residential	475
Commercial / Institutional	293
Industrial	0
Landscape irrigation	38
Other	0
Total Connections	7,996

According to the US Census:

	Eureka	Humboldt County	California
Median household income (2019-2023)	\$57,662	\$61,160	\$100,149
Per capita income past 12-months	\$28,788	\$28,769	\$36,955
Percent of persons in poverty	18.1%	18%	11.8%

3.6 Land Use Within Service Area

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

HCSD serves a predominantly residential customer base, with single-family residential connections accounting for approximately 90 percent of the District's 7,996 total service connections. The remaining connections consist of multi-family residential, commercial/institutional, and landscape irrigation customers.

HCSD's water supply is provided through a combination of groundwater wells and imported surface water purchased from HBMWD. During the reporting period, approximately 30.37 percent of the District's water supply was produced from HCSD groundwater wells, while approximately 39.37 percent was supplied by HBMWD. These sources collectively provide a reliable water supply for customers throughout the District's service area.

3.7 Submittal Table

Submittal Table 3-1 Retail: Population - Current and Projected Water Code Section 10631(a)						
Population Served	2025	2030	2035	2040	2045	2050(opt)
	19,835	20,351	20,880	21,423	21,981	22,552
NOTES:						

4.0 WATER USE CHARACTERIZATION

This Section describes and quantifies the current and projected water uses within the HCSD service area.

4.1 Non-Potable Versus Potable Water Use

Wastewater collection is provided by HCSD in their district. Wastewater collected within the HCSD is treated at the City of Eureka wastewater treatment facility. HCSD is not responsible for treatment of wastewater or wastewater recycling. Recycled wastewater is not currently being used in the HCSD service area and HCSD has no authority regarding the use of recycled wastewater. All of HCSD water demand is met with potable water. HCSD does not distribute recycled water or raw water.

4.2 Past, Current, and Projected Water Use by Sector

Requirement: *For an urban retail water supplier, quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, based upon information developed pursuant to subdivision (a), identifying the uses among water use sectors, including, but not necessarily limited to, all of the following:*

- (A) Single-family residential
- (B) Multifamily.
- (C) Commercial.
- (D) Industrial.
- (E) Institutional and governmental.
- (F) Landscape.
- (G) Sales to other agencies.
- (H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof.
- (I) Agricultural.
- (I) Distribution system water loss (CWC 10631 (d))

HCSD utilizes the following water use sectors;

- Single Family / Multi Family Residential;
- Commercial / Institutional;
- Industrial;
- Landscape Irrigation; and
- Distribution system water loss.

The District does not use any water use sectors in addition to those listed in the Water Code.

2025 retail demand for potable and raw water by use type is included in Table 4-1.

4.2.3 Current Water Use

4.2.4 Projected Water Use

Water use by sector for the past five years is shown in the table below:

Sector	5-Year Average (AF)	Percent of Total Demand
Single-Family Residential	1,067	58%
Multi-Family Residential	150	8%
Commercial	131	7%
Landscape Irrigation	19	2%
Distribution System Losses	468	25%
Total Demand	1,872	100%

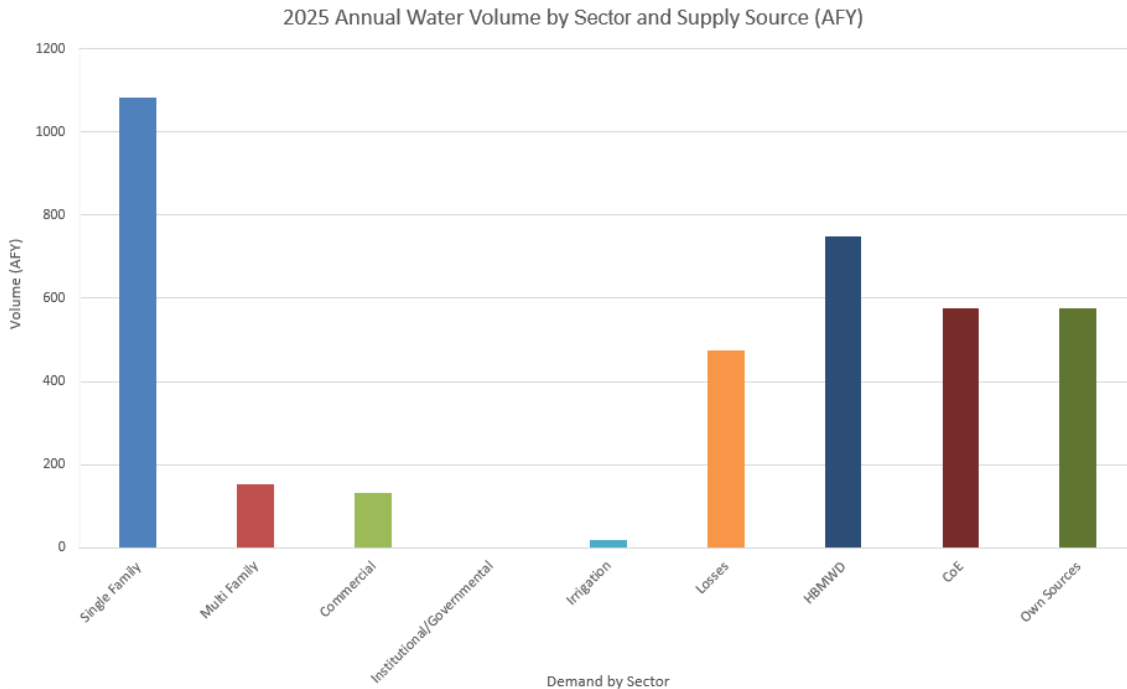
The District's water use is primarily residential, with single-family and multi-family residential customers accounting for approximately 65 percent of total water demand. Commercial uses account for approximately 7 percent of total demand, while landscape irrigation represents approximately 1 percent. Distribution system losses account for approximately 25 percent of total water demand. The District continues to monitor water use trends and system losses to improve operational efficiency and support long-term water supply planning.

4.4 Distribution System Water Losses

HCSD has used the AWWA Water Loss Audit methodology to evaluate and track distribution system losses. According to the most recent AWWA Water Loss Audit, HCSD reported total water losses of approximately 473 acre-feet per year (AFY), including real losses of approximately 233 AFY. Non-revenue water was estimated at approximately 484 AFY. The District's water distribution system comprises approximately 115.5 miles of water mains serving 8,067 service connections, with an average operating pressure of 60 psi. HCSD continues to monitor water losses and implement system improvements, including leak detection, infrastructure replacement, and meter maintenance, to better understand and reduce real water losses throughout the distribution system.

4.5 Current Water Use

The current (2025) water use volume and connection count by sector are indicated in the table below



4.6 Projected Water Use

Demand projections by use sector (Table 4-2) were estimated over the planning horizon using the following methods:

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	1,083	1,140	1,170	1,200	1,231
Multi-Family		Potable	152	160	164	168	173
Commercial		Potable	133	140	144	147	151
Institutional/Governmental		Potable	0	0	0	0	0
Other (optional)	Irrigation	Potable	19	20	21	21	22
Distribution System Water Loss		Potable	475	500	513	526	540
Subtotal Potable			1,862	1,960	2,012	2,062	2,117
Subtotal Non-Potable			0	0	0	0	0
Total			1,862	1,960	2,012	2,062	2,117
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:							

4.7 Water Use for Lower Income Households

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

Water use projections include projected water use for single-family and multi-family residential housing needed for lower-income households.

4.8 Climate Change Considerations

The following table summarizes climate change information for Eureka contained in Section 3.3 acquired from CalAdapt.

Climate Change Parameter (Eureka CA)	Range of Predicted Change (2035-2065) Medium Emissions / High Emissions
Annual Average Maximum Temperature	+3 degrees Fahrenheit / +3.8 degrees Fahrenheit
Annual Total Precipitation	-0.2 inches per year / +0.5 inches per year
Maximum Length of Dry Spell	+ 7 days per year / +10 days per year

In the HCSD service area, higher maximum temperature, and longer length of dry spells, may result in a slight increase in outdoor irrigation demand which is a small percentage of water use. Possible increased annual precipitations may off set the increase in outdoor irrigation demand and may result in no net impact to demand.

The following table summarizes climate change information for the Upper Mad River Watershed) contained in Section 3.3 acquired from CalAdapt.

Climate Change Parameter (Upper Mad River Watershed)	Range of Predicted Change (2035-2065) Medium Emissions / High Emissions
Annual Average Maximum Temperature	+3.6 degrees Fahrenheit / +4.4 degrees Fahrenheit
Annual Total Precipitation	-0.1 inches per year / +1.1 inches per year
Maximum Length of Dry Spell	+ 7 days per year / +9 days per year

In the Upper Mad River Watershed (location of HBMWD water reservoir Ruth Lake), higher maximum temperature, and longer length of dry spells are projected that will not affect HCSD demand since it is outside of the HCSD service area. Increased annual precipitations will result in increased supply available at Ruth Lake the HBMWD Reservoir.

4.9 Energy Use

Requirement: *Water Code Section 10631.2. (a) In addition to the requirements of Section 10631, an urban water management plan shall include any of the following information that the urban water supplier can readily obtain: (1) An estimate of the amount of energy used to extract or divert water supplies. (2) An estimate of the amount of energy used to convey water supplies to the water treatment plants or distribution systems. (3) An estimate of the amount of energy used to treat water*

supplies. (4) An estimate of the amount of energy used to distribute water supplies through its distribution systems. (5) An estimate of the amount of energy used for treated water supplies in comparison to the amount used for nontreated water supplies. (6) An estimate of the amount of energy used to place water into or withdraw from storage. Any other energy-related information the urban water supplier deems appropriate.

HCSD energy consumption information for 2025 is presented in Table 0-1A. The data were collected during Fiscal Year 2024/25 and show a total water distribution energy use of 679,222 kWh. Of this total, 231,311 kWh were used to pump groundwater from the HCSD Spruce Point and South Bay wells, representing approximately 34% of the annual water distribution energy consumption.

5.0 SBX7-7 BASELINE AND TARGETS

Suppliers that only met the definition of an urban retail water supplier (as defined in Water Code Section 10608.12) after 2020 were not subject to SB X7-7 or UWMP requirements during the 2020 reporting cycle.

5.1 Reporting Requirements for Retail Suppliers

The Water Code requires Retail Suppliers to report their progress toward the 2020 Target. The Water Code does not set an end date for reporting on this progress. Suppliers' reporting requirements will vary depending on whether the Supplier:

- Was considered an urban retail water supplier in 2020;
- Met its 2020 target in 2020;
- Was part of a merger or consolidation since 2020; and
- Monthly meeting with Retailers where water conservation can be discussed.

HCSD was considered an urban retail water supplier in 2020 and met its 2020 target.

5.2 Updating Calculations from 2015 UWMP to the 2020 UWMP

Requirement: *An urban retail water supplier may update its 2020 urban water use target in its 2015 urban water management plan required pursuant to Part 2.6. (CWC 10610.20 (g)).*

Population estimates and projections used in the 2015 UWMP are based on 2010 US Census data in combination with historic persons per connection data. HCSD is not updating the calculations from the 2015 UWMP. SBX7-7 tables used to calculate the GPCD baselines and goals are included in Appendix H.

5.3 Baseline Periods

Requirement: (e) *An urban retail water supplier shall include in its urban water management plan due in 2010. . . the baseline daily per capita water use...along with the bases for determining those estimates, including references to supporting data. (CWC 10608.20 (e)).*

An urban retail water supplier may update its 2020 urban water use target in its 2015 urban water management plan required pursuant to Part 2.6 (commencing with Section 10610). (CWC 10608.20 (g)).

In 2008, the HCSD did not have at least 10% of its 2008 measured retail water demand met through recycled water and therefore used a 10-year baseline. The first base period (10-year continuous period) was selected from 1995 to 2004. The average gallons/capita day (GPCD) for the 10-year base period was 141 GPCD. Using Method # 3 (95% of the regional goal of 137) to calculate the 2020 GPCD goal for the District results in 130 GPCD.

The second baseline (5-year continuous period) was selected from 2003 to 2007. The average GPCD for the 5-year baseline was 136 GPCD. Since 95% of the 5-year baseline is 129 GPCD and is less than the 2020 GPCD goal using Method # 3 (130 GPCD) the adjusted 2020 GPCD goal is 129 GPCD. The interim target goal for 2015 is 135 GPCD which was met.

5.4 Service Area Population

Requirement: *Water Code Section 10608.20(e) An urban retail water supplier shall include in its urban water management plan due in 2010...the baseline per capita water use...along with the bases for determining those estimates, including references to supporting data.*

*(f) When calculating per capita values for the purposes of this chapter, an urban retail water supplier shall determine population using federal, state, and local population reports and projections.
Water Code Section 10644.*

A Geographic Information System (GIS) coverage of the HCSD drinking water distribution service area was used with 2010 US Census Bureau population and connection data to determine the persons per residential connection of 2.64. The persons per connection was used with the number of residential connections to estimate the population from 1988-2009 and 2011-2019. This was reconciled with the 2020 census and the person per connection were again used with the number of residential connections to estimate the population from 2021 to 2025.

Population growth projections (2026-2045) are based on growth projections contained in the City of Eureka 2040 General Plan dated October 15, 2018 (Table 3-1).

5.5 Gross Water Use

Requirement: *"Gross Water Use" means the total volume of water, whether treated or untreated, entering the distribution system of an urban retail water supplier, excluding all of the following:*

- (1) Recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier*
- (2) The net volume of water that the urban retail water supplier places into long term storage*
- (3) The volume of water the urban retail water supplier conveys for use by another urban water supplier*
- (4) The volume of water delivered for agricultural use, except as otherwise provided in subdivision (f) of Section 10608.24. (CWC 10608.12 (g)).*

Gross water use was calculated for each year in the baseline periods as well as 2020, the compliance year. The gross water use for HCSD was the total volume of water entering the distribution system excluding the net volume of water conveyed for use by the City of Eureka.

5.6 Baseline and Targets Summary

Baseline daily per capita water use was calculated by dividing the gross water use (Section 5.5) by the service area population (Section 5.4) for each year of the baseline periods as shown below.

Baseline Year <i>Fm SB X7-7 Table 3</i>	Service Area Population <i>Fm SB X7-7 Table 3</i>	Annual Gross Water Use <i>Fm SB X7-7 Table 4</i>	Daily Per Capita Water Use (GPCD)
--	---	--	--

10 to 15 Year Baseline GPCD				
Year 1	1995	16,760	839	137
Year 2	1996	16,936	887	143
Year 3	1997	17,151	876	140
Year 4	1998	17,359	871	137
Year 5	1999	17,501	904	142
Year 6	2000	17,693	933	144
Year 7	2001	17,858	923	142
Year 8	2002	18,227	959	144
Year 9	2003	18,304	936	140
Year 10	2004	18,446	957	142
10-15 Year Average Baseline GPCD				141
5 Year Baseline GPCD				
Baseline Year <i>Fm SB X7-7 Table 3</i>		Service Area Population <i>Fm SB X7-7 Table 3</i>	Gross Water Use <i>Fm SB X7-7 Table 4</i>	Daily Per Capita Water Use
Year 1	2003	18,304	936	140
Year 2	2004	18,446	957	142
Year 3	2005	18,681	961	141
Year 4	2006	18,788	890	130
Year 5	2007	18,846	875	127
5 Year Average Baseline GPCD				136

5.7 Baseline and Target Summary

SB X7-7 verification tables are included as Appendix C.

Summary of Updated GPCD Goals

10-year Base GPCD	141
80% (10-year Base GPCD)	113
North Coast Region Statewide Target by 2020	137
5-year Base Daily Per Capita Water Use	136
95% of 5-year Base GPCD/ adjusted 2020 Urban Water Use Target	129
HCSD's Interim (2015) Goal (met)	135
HCSD's 2020 Target	113

5.8 2020 Compliance Daily per Capita Water Use (GPCD)

Requirement: Water Code Section 10608.12

(f) "Compliance daily per-capita water use" means the gross water use during the final year of the reporting period....

(e) An urban retail water supplier shall include in its urban water management plan due in 2010 . . . compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.

HCSD's 2020 GPCD target is 113 GPCD. HCSD's 2020 GPCD was actually 92. HCSD has achieved compliance with daily per-capita water use for 2020 (Table 5-1, and 5-2). Verification of compliance is documented in the SB X7-7 Compliance form included as Appendix H.

6.0 WATER SUPPLY CHARACTERIZATION

This Section describes and quantifies the current and projected sources of water available to the agency including supplies from other agencies, surface water, groundwater, recycled water, desalinated water, transfers and exchanges, and any other source water the supplier considers part of its supply portfolio.

HCSD purchases water from HBMWD and COE. HCSD also uses groundwater extracted from three HCSD owned groundwater wells. The water purchased from the COE is water that the COE acquired from HBMWD.

6.1 Purchased or Imported Water

HCSD receives a portion of its water supply from HBMWD under a long-term water supply agreement. HBMWD obtains its water from the Mad River watershed and Ruth Lake Reservoir system, which provides a reliable regional surface water supply for municipal customers throughout Humboldt County.

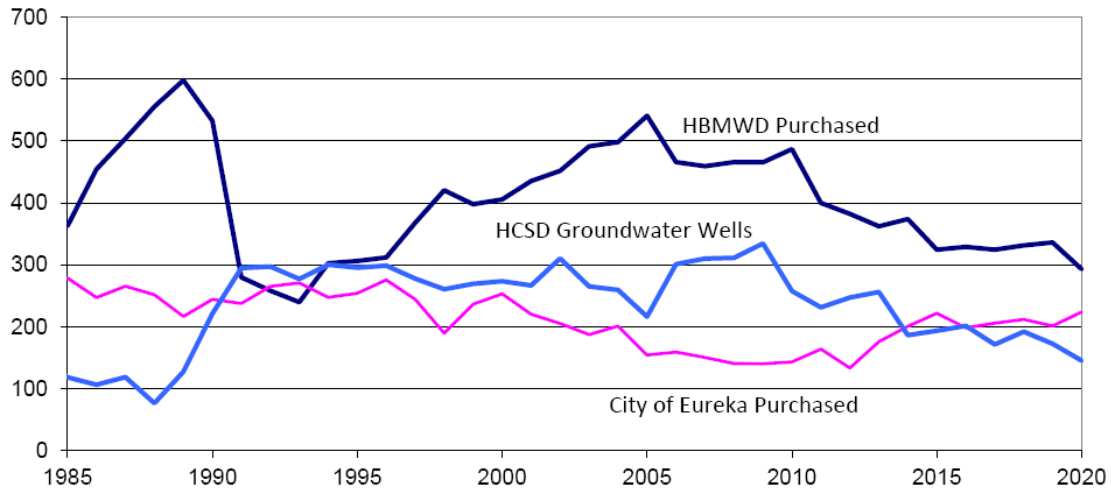
HBMWD currently supplies water to the Cities of Arcata and Eureka, the Humboldt Community Services District, the McKinleyville Community Services District, the Fieldbrook-Glendale Community Services District, the Manila Community Services District, the City of Blue Lake, and a small number of retail customers. Based on HBMWD's 2025 water use data, total potable water deliveries were approximately 10,099 AF, including about 727 AF delivered to HCSD. Historical records indicate that HCSD's maximum annual demand from HBMWD was about 1,058.5 AF, representing about 24 percent of HBMWD's contractual water supply allocation.

HBMWD's projected water deliveries to HCSD are estimated to increase gradually from approximately 798 AF in 2030 to approximately 885 AF by 2045. These projected deliveries remain well within HBMWD's available supply capacity and contractual obligations. Regional demand projections indicate that HBMWD's total production capacity is sufficient to meet the anticipated demands of its member agencies throughout the planning horizon.

As a result, HCSD expects HBMWD to remain a reliable supplemental water source throughout the UWMP planning period. Combined with the District's groundwater wells, HBMWD supplies provide HCSD with a diversified water portfolio capable of meeting projected future demands under normal water supply conditions.

According to HBMWD documents, they currently have water rights to divert 75 million gallons per day (MGD) from the Mad River. The HBMWD also owns and operates the R.W. Matthews Dam impounding water in Ruth Lake. HBMWD manages releases from the dam to ensure sufficient supplies downstream throughout the year.

The historic volumes of water produced from the various supplies are noted in the graph below in millions of gallons per year.



6.2 Groundwater

HCSD has invested in a groundwater source to diversify its water supply and better prepare the District during emergencies. HCSD's investment in groundwater is not in response to supply limits or increased demand (Table 6-1).

HCSD owns and maintains three deep (400-feet plus) wells. These wells are all located near the base of Humboldt Hill in the Eureka Plain Groundwater Basin, are artesian in nature, and produce excellent quality water. Groundwater pumping rights are not required as the aquifer is not adjudicated. Because of state laws requiring disinfection at the extremities of the system, these wells receive chlorination before distribution to the southern region of the HCSD. Based on groundwater depth measurements taken since 1988 (time of well installation) there has been no appreciable change in water depth. Water depths in the wells are consistent and are not influenced by climatic variation. Based on this information, the water produced from the HCSD groundwater wells is very reliable and not susceptible to drought conditions.

A Groundwater Management Plan has not been developed for the Eureka Plain Groundwater Basin. Based on the current ranking of the groundwater basin (very low), the development of a Groundwater Management Plan is not anticipated in the near future. The HCSD does not have adjudicated rights to pump groundwater.

Overdraft occurs in a groundwater basin when the amount of water withdrawn by pumping over the long term exceeds the amount of water that recharges the basin. Overdraft is characterized by groundwater levels that decline over years and never fully recover, even in wet years.

The Eureka Plain Groundwater Basin has not been identified as overdrafted based on extraction rates, cone of depression, recharge rate, and water surface elevation. The basin has not been identified as likely to become overdrafted if current management conditions continue.

Approximately 25% of HCSD drinking water (most recent 5-year average) is acquired from three groundwater wells that they own and operate. Groundwater from all of the wells is

being produced from the Eureka Plain Groundwater Basin (Figure 4). The geology of the Eureka Plain Groundwater Basin is shown in Figure 4. The general location of the HCSD water wells is included in Figure 4.

The following sections describing the Eureka Plain Groundwater Basin is from California's Groundwater Bulletin 118, 2004 update (State of California, Department of Water Resources, 2004):

Basin Boundaries and Hydrology

The Eureka Plain Groundwater Basin is bounded by the Little Salmon Fault to the south, Humboldt Bay and Arcata Bay to the west and northwest, and by Wildcat series deposits to the east (Strand 1962). The Wildcat series is a group of five formations ranging in age from Miocene to Pleistocene consisting of sandstone, marine siltstone, and claystone (Evenson 1959). The northeast basin boundary, shared with the Mad River Basin, is the northwest trending Freshwater Fault (Clarke 1990). It's unclear if the basin is hydrologically contiguous with the Mad River Basin. Humboldt Bay separates the primary basin deposits from dune sand deposits to the west. The faulted southern and northern basin boundaries may extend to the near surface and form hydrologic barriers in portions of dune sand deposits. Annual precipitation in the basin ranges from 39- to 47-inches, increasing to the southeast.

Hydrogeologic Information

The basin is composed of Quaternary alluvium and deposits of the Hookton Formation underlain by non-marine Wildcat series deposits. Surface exposures of the Carlotta Formation are also observed north of Elk River. The Carlotta Formation forms the uppermost formation of the Wildcat series (Evenson 1959).

Water-Bearing Formations

The primary water-bearing formations in the basin include the Pliocene Hookton Formation and, to a lesser extent, Holocene dune sand west of Humboldt Bay and alluvial deposits southeast of Arcata Bay and along the Elk River.

Pleistocene Hookton Formation.

The Hookton Formation underlies the alluvium in the river floodplains and is exposed surficially over approximately 70 percent of the basin. The formation consists of yellow to yellow-brown loosely consolidated clay, silt, sand, and gravel, interfingering with blue-gray marine clay and silt. The formation is primarily fluvial in origin. In the Salmon Creek-Elk River Area, confined aquifers of the Hookton Formation yield up 800 gallons per minute (gpm) from wells about 400 feet deep (DWR 1965). Sanding of wells is a problem.

Groundwater Storage Capacity. Published information was not found addressing groundwater storage.

Groundwater Budget (Type B)

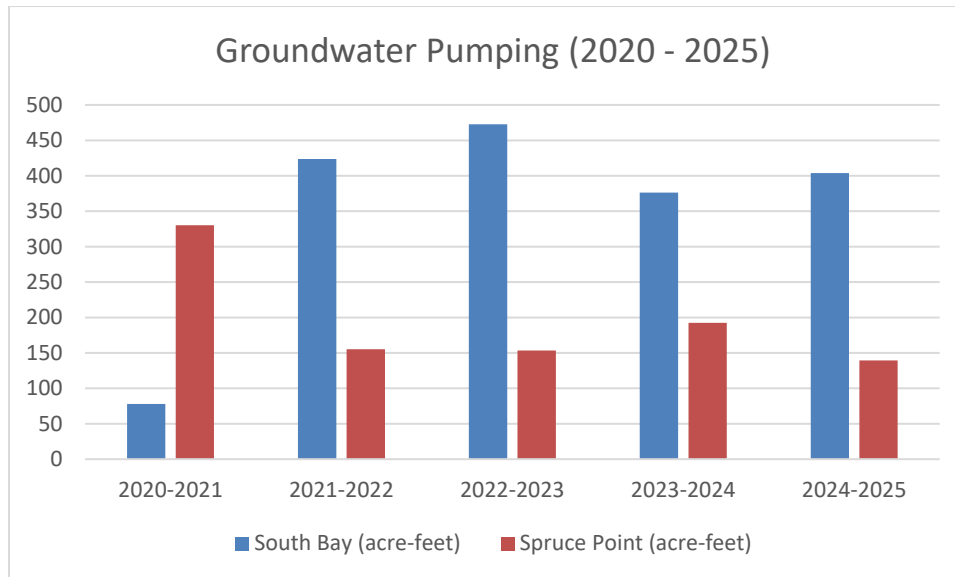
Estimates of groundwater extraction are based on a survey conducted by the California Department of Water Resources in 1996. The survey included land use and sources of water. Estimates of annual groundwater extraction for agricultural and municipal/industrial uses are 4,800 and 1,300 AF, respectively. Deep percolation from applied water is estimated to be 1,700 AF annually.

Groundwater Quality

Characterization. Groundwater in the basin is characterized as calcium-magnesium type water. Total dissolved solids (TDS) range from 97- to 460- mg/L, averaging 177 mg/L (DWR unpublished data).

Impairments. Groundwater impairments include localized high boron, iron, manganese, and phosphorus.

The volume of groundwater pumped from 2020 through 2025 is included in Table 6-2. During 2020 - 2025, there were no limitations or challenges in obtaining groundwater.



6.3 Surface Water

HCSD does not use, or plan to use, self-supplied surface water as part of its water supply.

6.4 Stormwater

HCSD does not currently or plan to intentionally divert stormwater for beneficial reuse.

6.5 Wastewater and Recycled Water

Wastewater collected within the HCSD is treated at the City of Eureka wastewater treatment facility. HCSD is not responsible for treatment of wastewater or wastewater recycling. Recycled wastewater is not currently being used in the HCSD service area and because HCSD has no authority regarding the use of recycled wastewater, it is unlikely to be used. All of HCSD water demand is met with potable water. HCSD does not have the ability to distribute recycled water (Table 6-2).

Wastewater collection is provided by HCSD in their district. Wastewater collected within the HCSD is treated at the City of Eureka wastewater treatment facility. The amount of wastewater collected in 2025 in the HCSD system was 1779.2 AF.

Wastewater collection is provided by HCSD in their District. Wastewater collected within the HCSD is treated at the City of Eureka wastewater treatment facility. HCSD is not responsible for treatment of wastewater or wastewater recycling (Table 6-4, 6-5 and 6-6).

HCSD is not responsible for wastewater treatment or recycling.

6.6 Desalinated Water Opportunities

HCSD is not currently considering or using desalinated water.

6.7 Exchanges or Transfers

HCSD is not currently considering or using exchanges or transfers of water.

6.8 Future Water Projects

HCSD is currently reviewing future water supply options at a strategic level (Table 6-7).

6.9 Summary of Existing and Planned Sources

The District expects to continue using groundwater from District owned wells, water purchased from the City of Eureka (CoE), and water purchased from Humboldt Bay Municipal Water District (HBMWD) to meet future demand. Groundwater production from District-owned wells is projected to increase from approximately 577 AF in 2025 to 666 AF in 2050. Purchases from the City of Eureka are projected to remain constant at approximately 575 AF per year throughout the planning period. Water purchased from HBMWD is projected to increase from 748 AF in 2025 to 919 AF in 2050 to meet anticipated growth in water demand.

The District's current supply strategy relies on a combination of local groundwater and imported surface water to provide a reliable, diversified water supply. HCSD is currently evaluating future water supply options at a strategic level, and the projected distribution of water sources may be adjusted as additional supply alternatives and long-term planning considerations are evaluated.

6.10 Special Conditions - Climate Change Impacts

Climate change impacts were evaluated Section 3.3 and Section 4.8.

As a result of this evaluation, it is concluded that climate change will have very little effect on the water supply and water demand in this area. Climate change was evaluated and considered, and did not result in a change in the projected water supply or demand.

6.11 Special Conditions-Regulatory Conditions

At this time there are no foreseeable regulatory conditions or changes that would affect the water supply.

7.0 WATER SYSTEM RELIABILITY AND DROUGHT RISK ASSESSMENT

This Section describes the reliability of HCSD's water supply and projects the reliability out 25 years. This description will be provided for both normal and multiple dry years.

Assessing water service reliability is the primary purpose of preparing a UWMP. Water service reliability reflects the District's ability to meet the water needs of its customers, including end-use customers and Retail Suppliers, under varying conditions. The District's UWMP will assess the reliability of meeting customer water use by analyzing hydrological and regulatory variability, climate conditions, and other factors that affect a Supplier's water supply and its customers' water use.

HCSD's water system reliability and drought risk assessment are based on HBMWD's ability to meet HCSD's projected demand over the next 25 years. Given the well-established reliability of water purchased from HBMWD (Ruth Lake Storage Capacity, 2015), HCSD's projected future demand can be met entirely with water purchased from HBMWD. The reliability of HCSD's groundwater use is discussed below and included in the UWMP tables. HCSD's water supply reliability includes water purchased from HBMWD and additional water supplies from the District's groundwater wells.

The following is Section 7 of the HBMWD's 2020 UWMP and demonstrates the reliability of HCSD's purchased water from HBMWD.

7.1 Constraints on Water Sources Considerations

The following is Section 7 of the HBMWD's 2020 UWMP and demonstrates the reliability of HCSD's purchased water from HBMWD.

Constraints on Water Sources

As discussed in the "System Demands" sections above, the District has an abundant supply of water at Ruth Reservoir which flows down the Mad River and is pumped at the Essex Operations Center. This source of water has been very consistent and there is no need to replace or supplement this source.

Water Quality

As discussed above, drinking water delivered by the District is drawn from wells located in the Mad River. These wells draw water from the sands and gravel of the aquifer located under the riverbed. The gravel and sands through which the water is drawn provides a natural filtration process which yields source water for the District's regional drinking water system that is of very high quality. Furthermore, the results from the District's ongoing water monitoring and testing program indicate that the District's water quality is very high and meets safe drinking regulatory standards, as has consistently been the case over the years.

The only water quality issue occasionally encountered by the District in the past was turbidity. Generally, turbidity in the Ranney Well source water has been very low and meets the turbidity standards set by the California Department of Public Health (CDPH), now known as the Division of Drinking Water (DDW). However, during or following

severe winter storm events, turbidity in the source water could rise beyond the standards set by CDPH. In the late 1990s, an extremely heavy “El Nino” rainy season caused a prolonged series of storms that raised turbidity in the source water to such a level that CDPH became concerned that it could potentially interfere with the disinfection process, and therefore, pose a threat to public health. In 1997, CDPH directed all of the Public Water Systems in the Humboldt Bay area (the District and its wholesale municipal customers) to address the wintertime turbidity issue and to meet the turbidity standards established by CDPH. The District initiated a process with its seven municipal customers to determine the most cost effective way to meet the State’s requirement. The solution was to design and construct a regional Turbidity Reduction Facility (TRF). The TRF was completed in April 2003 and now operates during the winter storm season to reduce higher turbidities in accordance with the State’s standards.

As the District’s ongoing water monitoring and testing program indicates that the District’s water quality has been and continues to be very high and with the turbidity issue taken care of by the TRF, the District does not foresee any current or projected water supply impacts resulting from water quality.

Reliability by Type of Year

As stated in earlier sections, the District has permitted rights to store 48,030 AFY of Mad River water at Ruth Reservoir and divert 84,000 AFY of water at Essex to supply its wholesale and retail customers. Table 4-2 W and Table 7-2 show that the highest projected total water demand for the District’s wholesale customers in 2035 is 57,290 AFY, which is approximately 68% of this permitted water supply. With this in mind, the following sections will provide data for each of the following water year types: normal, single dry, and multi-dry. Supply and demand comparisons for each water year type will also be discussed.

Table 7-1 W captures the specific base water years that each type of water year falls into.

OPTIONAL Submittal Table 7-1 Wholesale: 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		984409	100%
Single-Dry Year		108540	11%

Consecutive Dry Years 1st Year		481779	49%
Consecutive Dry Years 2nd Year		984409	100%
Consecutive Dry Years 3rd Year		578522	59%
Consecutive Dry Years 4th Year		370769	38%
Consecutive Dry Years 5th Year		286682	29%
DWR NOTES: Supplier may use multiple versions of Submittal Table 7-1 W 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 W, in the "Note" section of each submittal table, state that multiple versions of Submittal Table 7-1 W 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 unit of measure selected in Submittal Table 2-3.			
NOTES: Average Year Volume based on average annual Mad River watershed discharges from 1951-2025			

7.2 Water Service Reliability Assessment

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

Regional Supply Reliability

Throughout the years, there have been studies that refer to the District's water source and its reliability. Bechtel Corporation was retained in the 1950s to perform various water supply studies and to complete the design and specifications for the original regional water system. During this time, Bechtel completed a detailed operations study of the reservoir storage to determine the safe yield of the original project pursuant to the District's downstream diversion requirements and the requirements in the District's water rights permits. The study was done on the basis of a 75MGD average annual diversion rate at Essex. Existing prior water rights downstream of Ruth Lake were incorporated into this study. Bechtel confirmed the safe yield of the reservoir to be 75 MG, assuming the driest period of record they studied (1923-1924). Bechtel reported "The Mad River Development will utilize the available supply and by storage regulation make this supply available for year-round diversion at Essex. The firm supply made available at Essex is measured by the amount of water the District can divert under its permits in the driest year on record 1923-1924." (Reference: Engineering Report on Mad River Development, Bechtel Corporation, October 1960)

Subsequent to Bechtel's operations study, DWR calculated the safe yield of Ruth reservoir to be very close to what Bechtel had determined (Reference: Bulletin No. 142-1, North Coastal Hydrographic Area). The State also used the 1923-24 drought period in its determination.

These hydrological conditions were supported by subsequent studies by DWR, the U.S. Army Corps of Engineers, Bechtel Corporation, and Winzler and Kelly Engineering. In a study by DWR titled "Office Report on Preliminary Investigation of Mad River," DWR acknowledges that the Ruth Lake area where the District keeps its storage supply has "heavy and frequent precipitation." DWR also said in the report that the mean seasonal runoff of the Mad River as measured at Arcata at the time (1958) was 750,000 AFY, which is far more than the District's permitted 84,000 AFY and the actual projected water demands from its customers as shown in Table 7-4 W.

The U.S. Army Corps of Engineers also discusses the mean seasonal runoff of the Mad River in their 1968 report titled, "Interim Review Report for Water Resources Development, Mad River, California." The report states that the variation in annual runoff has ranged from a low of 280,000 AFY in the lowest year recorded at the time, to a high of 1,746,000 AFY in the year of the highest runoff recorded at the time. It also states that the minimum five-year average annual runoff was 650,000 AFY. These average annual runoff amounts show that the District has ample supply to support its customer demands. The report also describes the local climate in that it is typical of coastal areas of California with a large percentage of the rainfall occurring during major storms during the winter months of November through March. It reports that the average annual precipitation over the basin ranges from about 40 inches along the coastal plains to more than 70 inches in the central part of the basin, with an estimated basin average of approximately 63 inches.

In 1977, Winzler and Kelly Engineering did a drought deficiency analysis of R.W. Matthews Dam with then current data (including the drought of 1977) and determined the safe yield to be approximately 67 MGD (75,040 AFY), 8 MGD less than projected by Bechtel. Although the safe yield projected by Winzler and Kelly was slightly less than the one projected by Bechtel Corporation, it still far exceeds the District's current and projected demands from its wholesale customers (Table 7-4 W).

Furthermore, the results from the above studies by DWR, U.S. Army Corps of Engineers, Bechtel Corporation, and Winzler and Kelly Engineering are supported by the District's historical data. From the District's historical data, on average, Ruth Lake begins the water year on October 1 with approximately 31,000 AF of water, 64% of its 48,030 AF capacity. Most rainfall in the area occurs between November and April. In every year but one since 1969, there has been at least one large storm during this period, bringing 3 to 9 inches of rain over a seven-day period. This is almost always sufficient to fill the reservoir to capacity. There has only been one water year (1976/77) in which the reservoir was not filled to capacity. The average reservoir volume on May 1 (the end of the usual rainy season) is approximately 47,700 AF, over 99% of capacity. This storage allows the District to supplement low flows until the rains begin again in the fall. Seasonal or climatic shortages are only likely to occur after two consecutive rainy winter seasons with severely reduced rainfall and runoff (well below 50% of normal). This has not happened in the history of the District.

7.2.1 Normal Water Year

During a normal water year, the Ruth Lake area averages 65.42 inches of rainfall, about 173,000 AF of water flow into the reservoir via the Mad River, and the average runoff for the watershed near the District's diversion facilities at Essex is 959,071 AFY (over the entire record period from 1963 to 2020). The average annual runoff data was provided by USGS at Gage Station 1148100 on the Mad River near Arcata, CA. As shown in Table 7-1 W, the Water Year ending in 1989 was considered an average water year because the average runoff for the watershed that year was 985,364 AFY, which is closest to the average annual runoff for the watershed as provided.

During a normal water year, the Ruth Reservoir and Mad River watershed have enough supply to meet the District's maximum permitted diversion of 84,000 AFY.

Table 7-2 Retail: shows the normal year supply and demand comparison, while 7-2 W displays HBMWD norma; year and use.

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)	1,949	2,001	2,052	2,106	2,160
Use totals (autofill from Submittal Table 4-2 R)	1,862	1,960	2,012	2,062	2,117
Surplus/(shortfall)	87	41	40	44	43
OPTIONAL Planned WSCP Actions					
WSCP - supply augmentation benefit					
WSCP - use reduction savings benefit					
Revised Surplus/(shortfall)					
DWR NOTES : Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.					
NOTES:					

Submittal Table 7-2 Wholesale: 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 W)	28,480	28,480	28,480	28,480	0
Use totals (see OPTIONAL Submittal Table 4-2 W)	11,071	11,379	11,716	12,079	
Surplus/(shortfall)	17,409	17,101	16,764	16,401	0
OPTIONAL Planned WSCP Actions					
WSCP - supply augmentation benefit					
WSCP - use reduction savings benefit					
Revised Surplus/(shortfall)					
DWR NOTES : Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.					
NOTES:					

7.2.2 Single Dry Water Year

The water year ending in 1977 was the driest recorded for the District, far drier than any other. Rainfall in the Ruth area was 23 inches, or 40% of normal (59.2 inches). Flows into the reservoir were 26,000 AFY, or 15% of normal (173,000 AFY). The runoff for the watershed measured near the District's diversion facilities was 109,107 AFY, or 11% of normal (992,458 AFY). The average reservoir volume for the water year was 21,000 AF, which is 44% of capacity (48,030 AF) and 51% of normal (41,000 AF). The reservoir was drawn down to 13,000 AF, or 27% of its capacity (48,030 AF) at the end of the water year.

Fall storms arrived in November 1977 and quickly refilled the reservoir. This water year was severely dry throughout the entire state of California and was a very exceptional year in the District's history:

- *In 52 years of records, it was the only year in which rainfall was less than 50% of normal (59.2 inches).*
- *It was also the only year in which the reservoir was not filled to capacity.*
- *Total flows into the reservoir via the Mad River were half the value of the next driest year (2001).*
- *Runoff for the watershed and average reservoir volume were each 60% of the next driest year.*

Table 7-3 W shows the Single Dry Year supply and demand comparison. This supply was based on the 1977 water year with watershed runoff of 108,540 AFY. As this amount is more than the District's permitted water supply of 84,000 AFY, the District still has the 84,000 AFY of water available as it does during a normal water year. The data show that the District has more than enough water supply to meet demand, even in a critical single-dry-year situation.

Future water supply availability beyond 2029 remains uncertain because the status of HBMWD's water rights has not yet been determined. Consequently, the District is no longer relying on the historical 84,000 AFY assumption used in earlier Urban Water Management Plans. Technical evaluations prepared for the 2025 UWMP indicate that this level of supply could be achieved under the required climate scenarios; however, uncertainty regarding future water rights necessitates a more conservative planning approach.

For planning purposes, the District has estimated available supply by combining existing contractual commitments to retail agencies with the highest retail demand recorded over the previous five years, plus a 20 percent allowance to account for system losses between diversion points and customer meters. Based on this approach, the projected available supply is approximately 28,480 AFY, as summarized in the following table, (Humboldt Bay Municipal Water District, 2026).

Maximum Historic Use (2021-2025)	Arcata	Blue Lake	Eureka	Fieldbrook	HBMWD	HCSD	Manila CSD	MCSD	Estimated System Loss 20%	Total Production Supply
Max MGY	679.71	67.83	1269.73	70.02	519.00	250.13	41.97	498.50		
Max MGD	1.86	0.19	3.48	0.19	0.83	0.69	0.11	1.37		
% of Contract (2021-2025)	62%	46%	50%	45%		24%	77%	53%		
Max Contract MGD (2017)	3	0.4	7	0.43	1	2.9	0.15	2.6		
Max Contract MGY	1095	146	2555	156.95	365	1058.5	54.75	949		
Max Contract AFY	3910	521	9124	560	1303	3780	196	3389	5696	28,480

Table 7-3 W: Single Dry Year Supply and Demand Comparison

Submittal Table 7-3 Wholesale: Single Dry Year Supply and Use Comparison Water Code Section 10635(a)					
	2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 (AF)
Supply totals	28,480	28,480	28,480	28,480	
Use totals	11,071	11,379	11,716	12,079	
Surplus/(shortfall)	17,409	17,101	16,764	16,401	
OPTIONAL Planned WSCP Actions					
WSCP - supply augmentation benefit					

WSCP - use reduction savings benefit					
Revised Surplus/(shortfall)					
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.					
NOTES:					

Table 7-3 Retail: Single Dry Year Supply and Demand Comparison

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	1,949	2,001	2,052	2,106	2,160
Use totals	1,882	1,960	2,012	2,062	2,117
Surplus/(shortfall)	67	41	40	44	43
OPTIONAL Planned WSCP Actions					
WSCP - supply augmentation benefit					
WSCP - use reduction savings benefit					
Revised Surplus/(shortfall)					
DWR NOTES : Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.					
NOTES					

Multiple Dry Water Years

The three water years between October 1989 and September 1992 represent the driest multiple years recorded for the District:

- *Rainfall for this period averaged 42 inches per year, or 60% of normal.*

- Of the three water years, the driest year for rainfall was water year 1990/1991 with 37 inches, or 53% of normal.
- Flows into Ruth Lake via the Mad River averaged 69,000 AFY, or 40% of normal (173,000 AFY).
- Despite the diminished rainfall and runoff, rainfall was more than sufficient to refill the reservoir each year.
- Reservoir volume during this period averaged 37,000 AF which is 77% of capacity (48,030 AF) and 90% of normal (41,000 AF).

The runoff for the watershed above the District's diversion facilities for these three water years were:

- 1990: 571,815 AFY, or 60% of normal (959,071 AFY).
- 1991 (driest water year of the three): 371,300 AFY, or 39% of normal.
- 1992: 282,794 AFY, or 29% of normal.

7.2.3 Single Dry Water Year

Table 7-4 W projects the multiple dry water year supply amounts in comparison to projected water demands for the years 2030 through 2050. HBMWD available water supply during each year of a five year consecutive dry period is projected to be 28,480 AFY. Projected water demands range from 11,071 AF in 2030 to 12,079 AF in 2045.

As shown in Table 7-4 W, the District's projected supplies exceed anticipated demands throughout the planning period, resulting in annual surpluses ranging from 17,409 AF in 2030 to 16,401 AF in 2045. No supply shortages are anticipated under multiple dry-year conditions, and no Water Shortage Contingency Plan (WSCP) supply augmentation or demand-reduction measures are required to meet projected demand.

Based on these projections, the District has sufficient water supplies to meet current and future customer demands during extended multiple dry-year conditions throughout the planning horizon. The analysis demonstrates that available supplies remain substantially greater than projected demands, ensuring reliable service even during prolonged drought scenarios.

Submittal Table 7-4 Wholesale: 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	28,480	28,480	28,480	28,480	
	Use totals	11,071	11,379	11,716	12,079	
	Surplus/(shortfall)	17,409	17,101	16,764	16,401	
	OPTIONAL Planned WSCP Actions					
	WSCP - supply augmentation benefit					

	WSCP - use reduction savings benefit					
	Revised Surplus/(shortfall)					
Second year	Supply totals	28,480	28,480	28,480	28,480	
	Use totals	11,071	11,379	11,716	12,079	
	Surplus/(shortfall)	17,409	17,101	16,764	16,401	0
	OPTIONAL Planned WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit					
	Revised Surplus/(shortfall)					
Third year	Supply totals	28,480	28,480	28,480	28,480	
	Use totals	11,071	11,379	11,716	12,079	
	Surplus/(shortfall)	17,409	17,101	16,764	16,401	0
	OPTIONAL Planned WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit					
	Revised Surplus/(shortfall)					
Fourth year	Supply totals	28,480	28,480	28,480	28,480	
	Use totals	11,071	11,379	11,716	12,079	
	Surplus/(shortfall)	17,409	17,101	16,764	16,401	0
	OPTIONAL Planned WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit					
	Revised Surplus/(shortfall)					
Fifth year	Supply totals	28,480	28,480	28,480	28,480	
	Use totals	11,071	11,379	11,716	12,079	
	Surplus/(shortfall)	17,409	17,101	16,764	16,401	0
	OPTIONAL Planned WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit					
	Revised Surplus/(shortfall)					
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.						
NOTES:						

Table 7-4 R presents HCSD's projected water supplies and demands under a five-year multiple dry-year scenario for 2030 through 2050. Available water supplies are projected to increase from 1,949 AF in 2030 to 2,160 AF in 2050, while projected demands rise from 1,910 AF to 2,117 AF over the same period. As shown in the table, HCSD maintains a positive surplus throughout the five consecutive dry years, ranging from 39 AF in 2030 to 43 AF in 2050. These projections indicate that HCSD has sufficient water supplies to meet anticipated customer demands during extended dry-year conditions without additional Water Shortage Contingency Plan (WSCP) supply augmentation or demand-reduction measures.

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	1,949	2,000	2,052	2,106	2,160
	Use totals	1,910	1,960	2,011	2,063	2,117
	Surplus/(shortfall)	39	40	41	43	43
	OPTIONAL Planned WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit					
	Revised Surplus/(shortfall)					
Second year	Supply totals	1,949	2,000	2,052	2,106	2,160
	Use totals	1,910	1,960	2,011	2,063	2,117
	Surplus/(shortfall)	39	40	41	43	43
	OPTIONAL WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit					
	Revised Surplus/(shortfall)					
Third year	Supply totals	1,949	2,000	2,052	2,106	2,160
	Use totals	1,910	1,960	2,011	2,063	2,117
	Surplus/(shortfall)	39	40	41	43	43
	OPTIONAL Planned WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit					
	Revised Surplus/(shortfall)					
Fourth year	Supply totals	1,949	2,000	2,052	2,106	2,160
	Use totals	1,910	1,960	2,011	2,063	2,117
	Surplus/(shortfall)	39	40	41	43	43

	OPTIONAL Planned WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit					
	Revised Surplus/(shortfall)					
Fifth year	Supply totals	1,949	2,000	2,052	2,106	2,160
	Use totals	1,910	1,960	2,011	2,063	2,117
	Surplus/(shortfall)	39	40	41	43	43
	OPTIONAL Planned WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit					
	Revised Surplus/(shortfall)					
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.						
NOTES:						

HCSD currently relies on three primary water supply sources: water purchased directly from Humboldt Bay Municipal Water District (HBMWD), water purchased through the City of Eureka (CoE), and groundwater produced from District owned wells. Each of these sources has historically provided reliable water supplies and is not currently constrained by legal, environmental, water quality or climatic limitations that would significantly affect the District's ability to meet projected demands during the planning period.

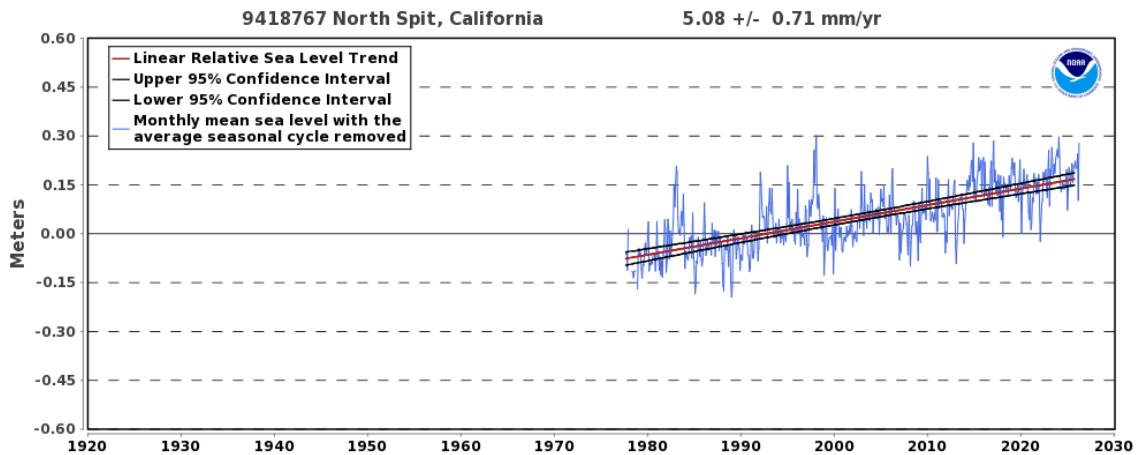
7.4 Service Reliability - Constraints on Water Sources (HCSD Groundwater Wells)

Potential constraints on the District's water source include, legal, environmental, or climate factors. Foreseeable legal constraints are not considered a limitation within the 25-year planning period. Currently and within the planning period the only foreseeable environmental issue that could limit the District's water supply from the groundwater wells is sea level rise.

Constraints due to climate change are discussed in Section 3.3 and 4.8. As a result of this evaluation, it is concluded that climate change will affect the water supply and water demand very little in this area. Climate change was evaluated and considered and did not result in a change in the projected water supply or demand.

Future constraints on water supplies, due to declining groundwater levels is not anticipated based on the historic response (lack of response) of groundwater levels to changes in precipitation as shown later in this section.

The relative sea-level rise trend for Humboldt Bay by NOAA is shown below:



Source: National Oceanic and Atmospheric Administration, Center for Operational Oceanographic Products and Services. *Relative Sea Level Trend, 9418767 North Spit Humboldt Bay, California*. Accessed May 20, 2026 via https://tidesandcurrents.noaa.gov/sltrends/plots/9418767_meantrend.png

The projected relative sea level rise in Humboldt bay is 1 foot/40 years or 7.5 inches in the 25-year planning horizon. The three HCSD groundwater wells have surface elevations from 10 to 35 feet above sea level. HCSD groundwater wells will not likely be inundated by rising sea level in planning period (25-years).

Current water management strategies include:

- Identification and correction of water loss causes; and
- Continued monitoring of precipitation, and groundwater elevations in the Eureka Plain Groundwater Basin.

Currently there are no plans to supplement or replace the current water sources.

7.4.1 Reliability by Type of Year (HCSD Groundwater Wells)

Requirement: Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following:

- (A) an average water year,
- (B) a single dry water year,
- (C) multiple dry water years. (CWC 10631(c)(1))

Water from HCSD Groundwater Wells (Eureka, CA)

		Inches/Year	% of Average
1997	Average Single Year	37.82	100%
2013	Single Driest Year	16.6	44%
1976-1978	5-year Driest Years	27.76	73%

Groundwater elevation data was collected for several wells located within the Eureka Plain Groundwater basin to observe the effect of precipitation.

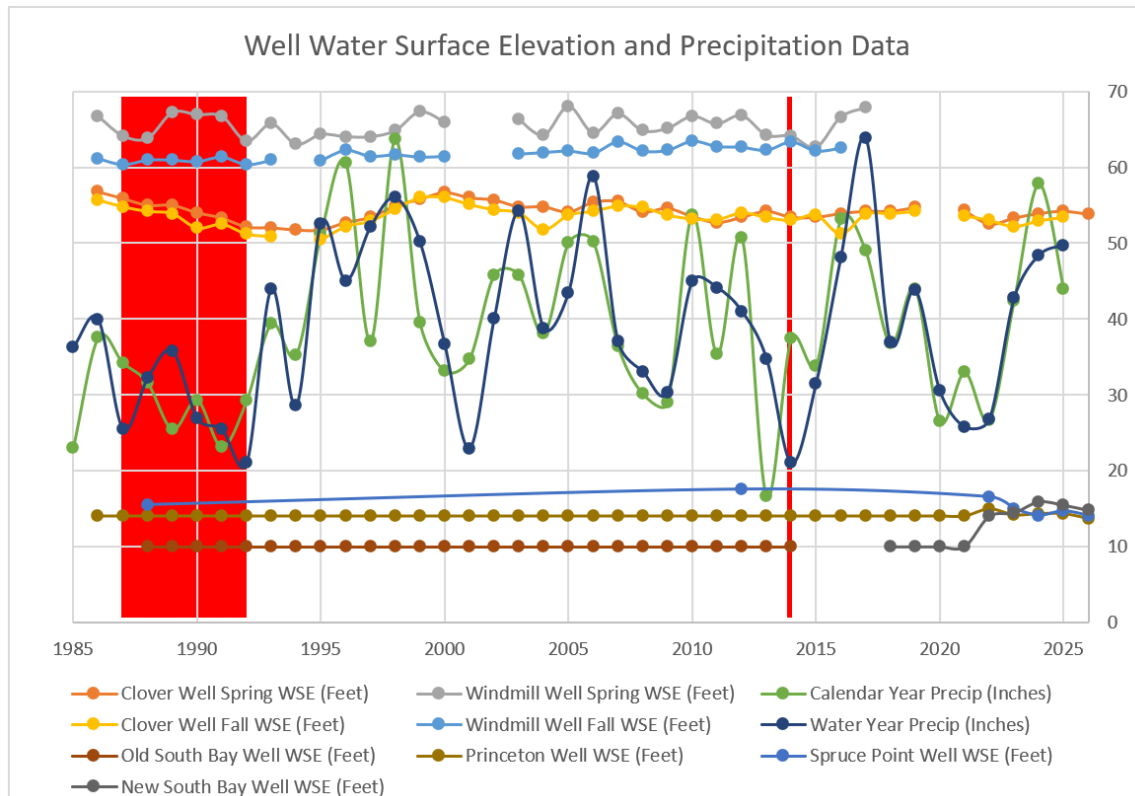


Figure 5: Water surface elevation and precipitation data for the Eureka Plain Basin between 1985 and 2025.

7.4.2 Supply and Demand Assessment (HCSD Groundwater Wells)

Requirement: Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and multiple dry water years. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional or local agency population projections within the service area of the urban water supplier. (CWC 16035 (a))

Based on groundwater depth measurements taken since 1988 (time of well installation) there has been no appreciable changes in water depth. Groundwater elevations in the wells are consistent and are have not been significantly influenced by climatic variation (precipitation). Based on this information, the water produced from the HCSD groundwater wells is very reliable and not susceptible to drought conditions. HCSD water supply in various drought scenarios is shown In Tables 7-1 through 7-5 as 1,235 MGY

which includes 1,076 MGY from HBMWD and 176 MGY from HCSD groundwater wells (5-year average production volume).

7.4.3 Regional Supply Reliability

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

HCSD has completed a strategic level planning process to evaluate all possible water sources and water supply strategies. The result was to adopt a strategy that provides the District with the most flexibility and reliability by using a combination of purchased water from HBMWD and groundwater from District wells.

8.0 WATER SHORTAGE CONTINGENCY PLANNING

This Section describes HCSD's staged plan for dealing with water shortages, including a catastrophic supply interruption.

HCSD is one of several water suppliers that receives water from HBMWD (wholesaler). HBMWD has a Water Shortage Contingency Plan (Appendix D) that governs their actions during a water shortage emergency and under various specific conditions will reduce the amount of water available to the water suppliers (retailers). At the time HBMWD reduces the water allocations to retailers it is up to each of the retailers to determine how to accomplish those reductions. HCSD has Ordinance 77-3 (Appendix E) which provides a range of water use restrictions to reduce water consumption, enforcement authority and penalties for violation of the water use restrictions. HCSD has Ordinance 77-3 which was designed to be flexible and able to be implemented in a wide range of water shortage situations.

8.1 Stages of Action

Requirement: *Stages of action to be undertaken by the urban water supplier in response to water supply shortages, including up to a 50 percent reduction in water supply, and an outline of specific water supply conditions which are applicable to each stage. (CWC 10632 (a)(1))*

HCSD used Section 4.05.090 of the HCSD Code and HCSD Ordinance 77-3 to define four stages of water shortage response, (Table 8-1).

Stage 1 (0-20% reduction)

Stage I is in effect at all times and is a general prohibition of water waste. Section 4.05.090 of the HCSD Code states:

"No customer shall knowingly permit leaks or waste of water. Where water is wastefully or negligently used on a customer's premises, seriously affecting the general service, the HCSD may discontinue the service if such conditions are not corrected within five days after giving customer written notice".

Prohibition of water waste and ongoing water conservation messages from HCSD and regional water providers are anticipated to result in a 0-20% reduction of water consumption.

Stage 2 (20-30% reduction)

Stage 2 is in effect when the HCSD Board of Directors declares a water emergency condition pursuant to California Water Code Section 350 and implements HCSD Ordinance 77-3. This stage may be implemented in response to the regional water wholesaler (HBMWD) required reductions in water available to retailers possible in response to the HBMWD Water Shortage Contingency Plan. Stage 2 includes prohibitions and restrictions contained in HCSD Ordinance 77-3 Section 4, and 5.

Stage 3 (30-40% reduction)

Stage 3 is in effect when the HCSD Board of Directors declares a water emergency condition pursuant to California Water Code Section 350 and implements HCSD Ordinance 77-3. This stage may be implemented in response to the regional water

wholesaler (HBMWD) required reductions in water available to retailers possible in response to the HBMWD Water Shortage Contingency Plan. Stage 3 includes various prohibitions and restrictions contained in HCSD Ordinance 77-3 Section 6 that can be used by the District Manager in times of water shortage.

Stage 4 (40-50% reduction)

Stage 4 is in effect when the HCSD Board of Directors declares a water emergency condition pursuant to California Water Code Section 350 and implements HCSD Ordinance 77-3. This stage may be implemented in response to the regional water wholesaler (HBMWD) required reductions in water available to retailers possible in response to the HBMWD Water Shortage Contingency Plan. It is intended that this stage is only in response to a critical water shortage and consist of HCSD Ordinance 77-3 Section 7 and consist in limiting water deliveries to customers (allocations or rationing). This Stage is anticipated to reduce water consumption up to 50%.

8.2 Prohibitions on End Uses

***Requirement: (4)** Additional, mandatory prohibitions against specific water use practices during water shortages, including, but not limited to, prohibiting the use of potable water for street cleaning. (CWC 10632 (a))*

(5) Consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply. (CWC 10632 (a))

Stage 1 (0-20% reduction)

Stage I is in effect at all times and is a general prohibition of water waste. Section 4.05.090 of the HCSD Code states "No customer shall knowingly permit leaks or waste of water.

Stage 2 (20-30% reduction)

Stage 2 includes the various prohibitions and restrictions contained in HCSD Ordinance 77-3 Sections 4, and 5 that will be applied by the District Manager. The requirement is for the Manager to consult with large water users and after which the District Manager may prohibit certain types or irrigation.

HCSD Ordinance 77-3 Section 4 prohibits large water users from most irrigation.

No person whose historic monthly average water use of any three month period exceeds 50,000 gallons per month, hereinafter called "large water users", shall irrigate, sprinkle, or water any shrubbery, trees, lawns, grass, ground covers, plants, vines, gardens, vegetables, flowers, or any other vegetation except as assigned by the Manager after consultation with individual large water users.

HCSD Ordinance 77-3 Section 5 prohibits water users to let water run to waste to a gutter or otherwise.

No person or customer shall cause or permit any water furnished to him or her by the Humboldt Community Services District to run to waste in any gutter or otherwise.

Stage 3 (30-40% reduction)

Stage 3 includes the various prohibitions and restrictions contained in HCSD Ordinance 77-3 Section 6 that may be applied by the District Manager based on the specific circumstances at that time.

HCSD Ordinance 77-3 Section 6 prohibits filling of pools, washing cars and outdoor surface, irrigation, and any other use designated by the General Manager.

While such order is in effect, no person or customer shall fill with District furnished water, any swimming pool, wash any car or any outdoor surface, irrigate, sprinkle, or water any shrubbery, trees, lawns, grass, ground covers, plants, vines, gardens, vegetables, flowers, or any other vegetation or allow any other non essential use of water as designated in order of the Manager.

Requirement: *Commencing with the urban water management plan update due July 1, 2016, for purposes of developing the water shortage contingency analysis pursuant to subdivision (a), the urban water supplier shall analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas, as defined in subdivision (a) of Section 115921 of the Health and Safety Code. (CWC 10632 (b))*

"Swimming pool" or "pool" means any structure intended for swimming or recreational bathing that contains water over 18 inches deep. "Swimming pool" includes in-ground and aboveground structures and includes, but is not limited to, hot tubs, spas, portable spas, and non-portable wading pools. (Health and Safety Code Section 115921)

HCSD Ordinance 77-3 Sections 6 prohibits the filling of swimming pools. HCSD is not aware of any water features that are artificially supplied with water supplied by HCSD, including ponds, lakes, waterfalls, and fountains

8.3 Penalties, Charges, Other Enforcement of Prohibitions

Requirement: *Penalties or charges for excessive use, where applicable. (CWC 10632 (a)(6))*

Stage I is in effect at all times and is the general prohibition of water waste. Enforcement of the general water waste prohibition is service disconnection. Section 4.05.090 of the HCSD Code states:

"No customer shall knowingly permit leaks or waste of water. Where water is wastefully or negligently used on a customer's premises, seriously affecting the general service, the HCSD may discontinue the service if such conditions are not corrected within five days after giving the customer written notice".

During any Water Shortage Stage HCSD has enforcement authority and the authority to levy penalties and charges. HCSD Ordinance 77-3, Section 9 includes enforcement provisions:

A. Each Police Officer of the County of Humboldt shall, in connection with his duties imposed by law, diligently enforce the provisions of the ordinance.

B. The Manager and all employees of the Humboldt Community Services District, and Humboldt Fire District # 1, have the duty and are authorized to enforce the provisions of this ordinance and shall have all the powers and authority contained in California Penal Code Section 836.5, including the power to issue written notice to appear.

During any Water Shortage Stage HCSD has the authority to levy penalties and charges for violation of the water use prohibition and restrictions. HCSD Ordinance 4-13 includes penalty provisions:

Water Conservation Fines & Penalties

	<i>Charge</i>
1 st Violation (infraction)	\$25.00
2 nd Violation (Infraction)	\$50.00
3 rd Violation & subsequent violations within a 6-month period (misdemeanor)	\$100.00

8.4 Consumption Reduction Methods

Requirement: *Consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply. (CWC 10632 (a)(5))*

Stage 1 (0-20% reduction)

Stage 1 is in effect at all times and includes an ongoing public education program promoting water conservation and has an ongoing program to reduce water loss, both of which are consumption reduction methods.

Stage 4 (40-50% reduction)

Stage 4 includes the District limiting water deliveries through allocations or rationing, consumption reduction measures, contained in HCSD Ordinance 77-3 Sections 7, (Table 8-3).

Whenever the Manager determines the water available to the Humboldt Community Services District is insufficient to meet the demands of customer: the District and that all water available to said City should be protected for human consumption, sanitation and fire protection, he may order limits be imposed on individual consumption as determined and specified by resolution of the Board of Directors including penalties in addition to those specified in Section 10 of this ordinance.

8.5 Determining Water Shortage Reduction

Requirement: *A mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis. (CWC 10632 (a)(9))*

All HCSD service connections are metered and can easily be compared to historical consumption data to determine actual reduction in water use during a period of water shortage. Actual reductions in water use are measured monthly by monitoring monthly water productions totals and monthly water distribution totals.

8.6 Revenue and Expenditure Impacts

Requirement: *An analysis of the impacts of each of the actions and conditions described in paragraphs (1) to (6), inclusive, on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments. (CWC 10632 (a)(7))*

Reduced revenue is expected during a period of water shortage. HCSD maintains a reserve fund for such emergencies which would be used to supplement water sale revenue for short term water shortage. In the event of long term water shortage, excess water use penalties may be implemented to reduce reserve fund depletion and promote water conservation.

8.7 Resolution or Ordinance

Requirement: *A draft water shortage contingency resolution or ordinance. (CWC 10632 (a)(8))*

A copy of HCSD's ordinance Number 77-3 titled "An Ordinance Establishing Rules and Regulations for Rationing Water During a Water Shortage Emergency and Establishing Penalties for Violations Thereof." is attached (Appendix E).

8.8 Catastrophic Supply Interruption

Requirement: *Actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including, but not limited to, a regional power outage, an earthquake, or other disaster. (CWC 10632 (a)(3))*

The California Safe Drinking Water Act mandates in Section 4029 that every public water system includes a Disaster Response Plan as part of their Emergency Notification Plan. This plan will outline the steps to be taken to maintain or return water service to the City's customers after a major disaster.

In the event of a major earthquake, the HCSD Emergency Operations Plan (EOP) outlines HCSD's response. HCSD would monitor tanks, pumps, and related equipment via the Supervisory Control and Data Acquisition (SCADA) system while operators conduct visual inspections of facilities in the field. The HBMWD's Emergency Action Plan (EAP) provides response procedures for catastrophic supply interruptions involving the R.W. Matthews Dam and Reservoir (Ruth Lake) at Ruth, such as an earthquake. The HBMWD's Operations Plan (OP) provides procedures for system failures. Hazardous materials incidents are addressed by numerous response plans, depending on the nature of the incident.

The primary supply of water is from HBMWD. The district has invested in three deep groundwater wells that will be used in case of emergency that reduces or eliminates supplies from HBMWD.

8.9 Minimum Supply Next Three Years

Requirement: *An estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency's water supply. (CWC 10632 (a)(2))*

HBMWD performed an analysis of the Ruth Lake storage capacity in 2015. The Ruth Lake Storage Capacity Analysis assumed a four year repetition of the 1976-1977 hydrology (driest years on record with only 10% of average discharge) and found that Ruth Lake has sufficient supply to provide 36.5 million gallons per day for four years, which is almost four times the current total demand and reliably provide twice the current demand indefinitely.

9.0 DEMAND MANAGEMENT MEASURE

This Section will describe HCSD's efforts to promote conservation and to reduce demand on their water supply and will specifically address several demand management measures (DMMs).

9.1 Demand Management Measures for Retail Agencies

Requirement: (A) *The narrative shall describe the water demand management measure that the supplier plans to implement to achieve its water use targets pursuant to Section 10608.20.*

(B) *The narrative pursuant to this paragraph shall include descriptions of the following water demand management measures:*

- (i) *Water waste prevention ordinances.*
- (ii) *Metering.*
- (iii) *Conservation pricing.*
- (iv) *Public education and outreach.*
- (v) *Programs to assess and manage distribution system real loss.*
- (vi) *Water conservation program coordination and staffing support.*
- (vii) *Other demand management measures that have a significant impact on water use as measured in gallons per capita per day, including innovative measures, if implemented. (CWC 10631 (f))*

Water Waste Prevention Ordinance - The HCSD has an Ordinance that prohibits the waste of water. Section 4.05.090 of the HCSD Code states "No customer shall knowingly permit leaks or waste of water. Where water is wastefully or negligently used on a customer's premises, seriously affecting the general service, the HCSD may discontinue the service if such conditions are not corrected within five days after giving customer written notice". Furthermore, the HCSD has a program designed to alert customers when excessive water use is detected. This is designed to help customers detect leaks and keep water costs down to end users.

Metering - All HCSD customer sectors are metered including separate meters for single-family residential, commercial, industrial and educational facilities. All customers are on meters and are billed by volume used.

Conservation Pricing - The HCSD's water billing pricing structure consists of a service charge for water availability (base charge) and quantity use charges (consumption charge). There is no inclining use (tiered) charges associated with HCSD's pricing structure at this time. It is unknown if tiered meter pricing complies with Proposition 218, which requires an associated benefit to the tiered price proposed. The HCSD is a small District that has abundant water supplies and relies on water rate revenues to operate. Implementing conservation measures might reduce operating revenue (other than leak reduction).

Public Education and Outreach - The HCSD supports initiatives to inform the public about water conservation. As a retail customer of HBMWD, indirect contributions are made regularly to the California Water Awareness Campaign and the Water Education Foundation (WEF). As part of the WEF's Water Awareness Month, HBMWD has co-sponsored radio public service announcements with water awareness and water

conservation messages. In the future, HBMWD will continue these efforts to raise public awareness of water conservation issues in a similar manner.

The District has created a site on its web page to promote water use awareness and water conservation. In addition, the District created a promotional campaign that targets reducing water use by producing water awareness and conservation brochures and running periodic public service announcements on the radio. This DMM will continue into the future.

Programs to Assess and Manage Distribution System Real Loss - HCSD has meters on all services and sources. Due to the water distribution system's age and area seismic activities, the HCSD routinely monitors for leaks, conducts distribution system repair and meter calibration activities. Totalizers connected to the HCSD's control system measure and record production rates, receiving rates, as well as delivery rates. These readings are taken continuously and are monitored at all times by HCSD staff. The HCSD also conducts valve exercising annually to ensure that all valving works properly and therefore allows for a distribution system check. The largest and most costly water conservation measure implemented by the HCSD Capital Improvement Program is replacement of approximately 15 miles of wrapped steel gas pipe that was used as water pipe during the 1950's. This wrapped steel pipe has a thin wall thickness, was not generally corrosion protected and is the source of most water leakage in the HCSD. Reducing system water loss is the only construction measure that HCSD intends to (continually) implement. HCSD will measure the effectiveness of this DMM by ongoing monitoring of system loss.

Water Conservation Program Coordination and Staffing Support - The District Planner has been assigned as the District Conservation Coordinator and has overall responsibility for oversight and implementation of the water conservation program(s).

9.2 Implementation over the Past Five Years

Requirement: *Provide a description of the supplier's water demand management measures. This description shall include all of the following:*

(1)(A) ... a narrative description that addresses the nature and extent of each water demand management measure implemented over the past five years. (CWC 10631(f)(2))

Over the past five years, HCSD has focused water conservation efforts on public education and outreach, and programs to assess and manage the distribution system's real loss.

Public Education and Outreach - The district website displays water conservation information in

Programs to Assess and Manage Distribution System Real Loss -HCSD has completed AWWA Water Loss Audits for calendar years 2013 through 2025. Based on results of the audits HCSD has focused efforts on leak repair and assessing the condition of system interties that connect HCSD to the COE water system. Assessment of interties included collection of water pressure data from both sides of the interties along with the collection and analysis of water samples for fluoride (used by COE but not HCSD). Additionally, HCSD has focused on quantification of all water uses including bulk water sales. HCSD has also been working continually with the water billing software and software provider to be able to generate meaningful reliable monthly water distribution volumes.

9.3 Planned Implementation to Achieve Water Use Targets

Requirement: *Provide a description of the supplier's water demand management measures. This description shall include all of the following:*

(1)(A) ...The narrative shall describe the water demand management measures that the supplier plans to implement to achieve its water use targets pursuant to Section 10608.20. (CWC 10631(f))

HCSD has met the 2020 water use goal. To maintain water conservation in the District HCSD will continue to emphasize public education and outreach and programs to assess and manage distribution real loss.

Public Education and Outreach - HCSD will continue to coordinate public education and outreach with the regional water retailers served by HBMWD. These efforts include promoting water conservation, efficient water use, and public awareness of water supply conditions. In addition, HCSD maintains water conservation information on its website, including monthly water saving tips, seasonal conservation recommendations and updates on water supply reliability. Through these ongoing outreach activities, the HCSD encourages customers to use water efficiently and supports long term water resource sustainability.

Programs to Assess And Manage Distribution System Real Loss - HCSD and CoE are connected by several water system interties and are reviewing their individual AWWA water audit results as a group. It is anticipated that a combined system-wide AWWA water loss audit will be performed to reduce the potential impact on interties. HCSD will continue to conduct annual AWWA water loss audits and focus on correcting detected water leaks and improving the billing system to generate monthly distribution reports that can be used to monitor the effectiveness of various system corrections.

10.0 PLAN ADOPTION, SUBMITAL AND IMPLEMENTATION

This Section describes the steps taken by HCSD to adopt and submit the UWMP and to make it publicly available. This chapter will also include a discussion of HCSD's plan to implement the UWMP.

10.1 Inclusion of All 2025 Data

HCSD's 2025 UWMP includes all 2025 data by fiscal year.

The following steps will be used for the UWMP adoption, submittal, and to make it available to the public:

- Notification of public hearing - At least 60 days before the public hearing, HCSD will notify stakeholders, neighboring public water systems, and other interested parties that the District is reviewing its Urban Water Management Plan (UWMP) and evaluating potential revisions or amendments. This notification process is intended to encourage public participation and interagency coordination during the UWMP update.
- Notification to the public - HCSD will provide two notifications - Published in a local newspaper at least once a week for two consecutive weeks prior to the Board of Directors meeting (public hearing) (Appendix F).
- Public hearing and optional adoption - The District will allow for community input, considering economic impacts, and can be combined with the adoption meeting as long as the public hearing is on the agenda before the adoption.
- Adoption - The adoption hearing is for the Board of Directors to formally adopt the UWMP and WSCP. Resolution 2026-06 is contained in Appendix G.
- Plan submittal - HCSD will update and submit its 2025 UWMP to DWR by July 1, 2026.
- Plan availability - No later than 30 days after adoption.
- Amending an adopted UWMP – If the District amends an adopted UWMP, each of the steps for notification, public hearing, adoption, and submittal must also be followed for the amended plan.

11.0 REFERENCES

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Evenson, R.E. 1959. Geology and Ground Water Features of Eureka Area, Humboldt County, California. USGS Water Supply Paper 1470.

Strand, 1962. Geologic Map of California, [Redding Sheet]. Scale 1:250,000. California Division of Mines and Geology.

Acknowledgement

Humboldt Community Services District acknowledges and extends its appreciation to Freshwater Environmental Services for their assistance in the preparation of the District's 2020 Urban Water Management Plan (UWMP) and Water Shortage Contingency Plan (WSCP).

TABLES

TABLE 3-1 Retail: Population - Current and Projected

Submittal Table 3-1 Retail: Population - Current and Projected Water Code Section 10631(a)						
Population Served	2025	2030	2035	2040	2045	2050(opt)
	19,835	20,351	20,880	21,423	21,981	22,552
NOTES:						

CWC 10631(a) describe the current and projected population of the service area including current and projected population...

TABLE 4-1 Retail: Demands for Potable and Non-Potable Water - Actual

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		Potable	1,083
Multi-Family		Potable	152
Commercial		Potable	133
Institutional/Governmental		Potable	0
Other (optional)	Irrigation	Potable	19
Distribution System Water Loss		Potable	475
Subtotal Potable			1862
Subtotal Non-Potable			0
Total			1,862
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:			

TABLE 4-2 Retail: Demands for Potable and Non-Potable Water – Projected

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	1,083	1,140	1,170	1,200	1,231
Multi-Family		Potable	152	160	164	168	173
Commercial		Potable	133	140	144	147	151
Institutional/Governmental		Potable	0	0	0	0	0
Other (optional)	Irrigation	Potable	19	20	21	21	22
Distribution System Water Loss		Potable	475	500	513	526	540
Subtotal Potable			1,862	1,960	2,012	2,062	2,117
Subtotal Non-Potable			0	0	0	0	0
Total			1,862	1,960	2,012	2,062	2,117
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:							

TABLE 4-3 Retail: Inclusion in Water Use Projections

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)	No
If "Yes" to above, state the section or page number , in the cell to the right, where citations of the codes, ordinances, or otherwise are utilized in demand projections are found. Optional Suppliers may complete Optional Submittal Table 4-4 R to quantify the expected savings.	
Are Lower Income Residential Demands Included In Projections? Drop down list (y/n)	

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:	

TABLE 4-4 Optional Submittal Retail: Passive Water Savings Projections

Optional Submittal Table 4-4 Retail: Passive Water Savings Projections Water Code Section 10631(d)(4)(A)					
Description (Codes, Standards, Ordinances, or Plans)	Passive savings				
	2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 opt (AF)
Add additional rows as needed					
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:					

TABLE 4-5 Retail Only: Water Loss Audit Reporting

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:		

TABLE 0-1A Optional Submittal Energy Reporting

Optional Submittal Table 0-1A: Recommended Energy Reporting - SINGLE DELIVERY PRODUCT - WATER SUPPLY PROCESS APPROACH										
Water Delivery Product drop down list (if delivering more than one type of product recommend using Table O-1C)	Retail Non-Potable Deliveries	Only for Water Delivery Products Under the Urban Water Supplier's Operational Control								
Start Date of Reporting Period	7/1/2024	Water Management Process							Non-Consequential Hydropower (if applicable)	
End Date of Reporting Period	6/1/2025 <th>Units for Water Volume</th> <th>Extract and Divert</th> <th>Place into Storage</th> <th>Conveyance</th> <th>Treatment</th> <th>Distribution</th> <th>Total Utility See DWR NOTES</th> <th>Hydropower</th> <th>Net Utility</th>	Units for Water Volume	Extract and Divert	Place into Storage	Conveyance	Treatment	Distribution	Total Utility See DWR NOTES	Hydropower	Net Utility
Is upstream embedded energy included in the values reported?	No									
Volume of Water Entering Process	AF						1857.6			0
Energy Consumed (kWh)	N/A						679222	679222		679222
Energy Intensity (kWh/vol. converted to MG)	N/A	0.0	0.0	0.0	0.0	0.0	1122.1	0.0	0.0	0.00

DWR NOTES: Total Utility:The volume of water entered in the "Total Utility" column should equal the volume of water entering the distribution system (excluding recycled water); in most cases, this is the total volume calculated in UWMP Table 4-1: 2025 Actual Total Uses for Potable and Non-Potable Water. Note if recycled water is included in your Submittal Table 4-1, you must exclude it from your volume in this table.

Quantity of Self-Generated Renewable Energy

0 kWh

Data Quality (Estimate, Metered Data, Combination of Estimates and Metered Data)

Data Quality Narrative:

Narrative:

NOTES:

TABLE 5-1 Baseline and Targets Summary from SB X7-7 Verification Form

Submittal Table 5-1 Baselines and Targets Summary From SB X7-7 Verification Form Retail Supplier or Regional Alliance Only				
Baseline Period	Start Year *	End Year *	Average Baseline GPCD*	Confirmed 2020 Target*
10-15 year	1995	2004	141	113
5 Year	2003	2007	136	

**All cells in this table should be populated manually from the supplier's SBX7-7 Verification Form and reported in Gallons per Capita per Day (GPCD)*

NOTES:

TABLE 5-2 2020 Compliance from SB X7-7 2020 Compliance Form

Submittal Table 5-2: 2020 Compliance From SB X7-7 2020 Compliance Form <i>Retail Supplier or Regional Alliance Only</i>				
2020 GPCD			2020 Confirmed Target GPCD*	Did Supplier Achieve Targeted Reduction for 2020? Y/N
Actual 2020 GPCD*	2020 TOTAL Adjustments*	Adjusted 2020 GPCD* <i>(Adjusted if applicable)</i>		
92.11	0	0	113	Y
*All cells in this table should be populated manually from the supplier's SBX7-7 2020 Compliance Form and reported in Gallons per Capita per Day (GPCD)				
NOTES:				

TABLE 6-1 Retail: Groundwater Volume Pumped

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							
Alluvial Basin	Potable	Eureka Basin	408.15	578.85	625.93	568.55	543.22
Total			408	579	626	569	543
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							

TABLE 6-2 Retail: Wastewater Collected Within Service Area in 2020

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.			
	Percentage of 2025 service area served by wastewater collection system (OPTIONAL)			
	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				
Total Wastewater Received from UWMP Service Area in 2025:		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.

NOTES:

TABLE 6-3 Retail: Wastewater Treatment and Discharge within Service Area in 2020

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														
Total		0	-	0	0	0	0	0	0	0	0	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:

TABLE 6-4 Retail: Current and Projected Recycled Water Direct Beneficial Uses within Service Area

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):											
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	Narrative page number (OPTIONAL)	
Add additional rows as needed											
Subtotal Potable			0	0	0	0	0	0	0		
Subtotal Non-Potable			0	0	0	0	0	0	0		
Total			0	0	0	0	0	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.
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:

TABLE 6-5 Retail: 2015 UWMP Recycled Water Use Projection Compared to 2020 Actual

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		
Total	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 reported in Submittal Table 2-3 Additional Guidance: See Appendix M, Section M.21 for detailed guidance on this table.		
NOTES:		

TABLE 6-6 Retail: Method to Expand Future Recycled Water Use

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.
	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			#NAME?
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: 			

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

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							

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:							

TABLE 6-8 Retail: Water Supplies – Actual

Submittal Table 6-8 Retail: Water Supplies — Actual Water Code Section 10631(b)				
Water Supply	Additional Description (as needed)	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		Potable or Non- Potable (after treatment if treated) (OPTIONAL) Drop Down list	Actual Volume (AF)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)
Add additional rows as needed				
Groundwater (not desalinated)	Own Sources, 2 district wells	Potable	577	
Purchased or Imported Water	Purchased from CoE and HBMWD	Potable	1,323	
Subtotal Potable			1,900	0
Subtotal Non-Potable			0	0
Total			1,900	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. Total Entitlement: e.g. Water Right, Groundwater Allocation, Contracted Amount.				
NOTES:				

Retail: Water Supplies – Projected

Submittal Table 6-9 Retail: Water Supplies — Projected Water Code Section 10631 (b)												
Water Supply 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	Projected Water Supply (Report to the Extent Practicable)									
			2030		2035		2040		2045		2050 (opt)	
			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)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)	Reasonably Available Volume (AF)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)
Add additional rows as needed												
Purchased or Imported Water	HBMWD		797		827		857		888		919	
Purchased or Imported Water	CoE		575		575		575		575		575	
Groundwater (not			577		599		620		643		666	
Subtotal Potable			0	0	0	0	0	0	0	0	0	
Subtotal Non-Potable			0	0	0	0	0	0	0	0	0	
Total			1,949	0	2,001	0	2,052	0	2,106	0	2,160	
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.												

TABLE 7-1 Retail: Basis of Water Year Data (Reliability Assessment)

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			100%
Single-Dry Year			
Consecutive Dry Years 1st Year			
Consecutive Dry Years 2nd Year			

Consecutive Dry Years 3rd Year			
Consecutive Dry Years 4th Year			
Consecutive Dry Years 5th Year			
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:			

TABLE 7-2 Retail: Normal Year Supply and Demand Comparison

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)	1,949	2,001	2,052	2,106	2,160
Use totals (autofill from Submittal Table 4-2 R)	1,862	1,960	2,012	2,062	2,117
Surplus/(shortfall)	87	41	40	44	43
OPTIONAL Planned WSCP Actions					
WSCP - supply augmentation benefit					
WSCP - use reduction savings benefit					
Revised Surplus/(shortfall)					
DWR NOTES : Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.					
NOTES:					

TABLE 7-3 Retail: Single Dry Year Supply and Demand Comparison

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	1,949	2,001	2,052	2,106	2,160
Use totals	1,882	1,960	2,012	2,062	2,117
Surplus/(shortfall)	67	41	40	44	43
OPTIONAL Planned WSCP Actions					
WSCP - supply augmentation benefit					
WSCP - use reduction savings benefit					
Revised Surplus/(shortfall)					
DWR NOTES : Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.					
NOTES					

TABLE 7-4 Retail: Multiple Dry Year Supply and Demand Comparison

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	1,949	2,000	2,052	2,106	2,160
	Use totals	1,910	1,960	2,011	2,063	2,117
	Surplus/(shortfall)	39	40	41	43	43
	OPTIONAL Planned WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit					
	Revised Surplus/(shortfall)					
Second year	Supply totals	1,949	2,000	2,052	2,106	2,160
	Use totals	1,910	1,960	2,011	2,063	2,117
	Surplus/(shortfall)	39	40	41	43	43
	OPTIONAL WSCP Actions					

	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit					
	Revised Surplus/(shortfall)					
Third year	Supply totals	1,949	2,000	2,052	2,106	2,160
	Use totals	1,910	1,960	2,011	2,063	2,117
	Surplus/(shortfall)	39	40	41	43	43
	OPTIONAL Planned WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit					
	Revised Surplus/(shortfall)					
Fourth year	Supply totals	1,949	2,000	2,052	2,106	2,160
	Use totals	1,910	1,960	2,011	2,063	2,117
	Surplus/(shortfall)	39	40	41	43	43
	OPTIONAL Planned WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit					
	Revised Surplus/(shortfall)					
Fifth year	Supply totals	1,949	2,000	2,052	2,106	2,160
	Use totals	1,910	1,960	2,011	2,063	2,117
	Surplus/(shortfall)	39	40	41	43	43
	OPTIONAL Planned WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit					
	Revised Surplus/(shortfall)					
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.						
NOTES:						

TABLE 7-5 Retail: Five-Year Drought Assessment Tables

Submittal Table 7-5: Five-Year Drought Risk Assessment Tables to address Water Code Section 10635(b)	
2021	Total
Total Water Use	730
Total Supplies	1,235
Surplus/Shortfall w/o WSCP Action	505
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	505

Resulting % Use Reduction from WSCP action	0%
--	----

2022	Total
Total Water Use	735
Total Supplies	1,235
Surplus/Shortfall w/o WSCP Action	500
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	500
Resulting % Use Reduction from WSCP action	0%

2023	Total
Total Water Use	740
Total Supplies	1,235
Surplus/Shortfall w/o WSCP Action	495
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	495
Resulting % Use Reduction from WSCP action	0%

2024	Total
Total Water Use	744
Total Supplies	1,235
Surplus/Shortfall w/o WSCP Action	491
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	491
Resulting % Use Reduction from WSCP action	0%

2025	Total
Total Water Use	748
Total Supplies	1,235
Surplus/Shortfall w/o WSCP Action	487
Planned WSCP Actions (use reduction and supply augmentation)	

WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	487
Resulting % Use Reduction from WSCP action	0%

TABLE 8-1 Retail: Water Shortage Contingency Plan Levels

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%	1	Up to 10%
2	Up to 20%	2	Up to 20%
3	Up to 30%	3	Up to 30%
4	Up to 40%	4	Up to 40%
5	Up to 50%	5	Up to 50%
6	>50%	6	>50%
NOTES:			

TABLE 8-2 Retail Only: Demand Reduction Actions

Submittal Table 8-2 Retail: Supply Augmentation and Other Actions Water Code Section 10632(a)(4)(A),(C) and (E)	
No	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				
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.				
NOTES:				

TABLE 8-3 Retail: Supply Augmentation and Other Actions

Submittal Table 8-3 Retail: Demand Reduction Actions Water Code Section 10632(a)(4)(B),(D), and (E)					
No	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	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)		

	those that apply.				
Add additional rows as needed					
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.					
NOTES:					

TABLE 10-1 Retail: Notification to Cities and Counties

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		
Humboldt County Public Works	Yes	Yes
Humboldt Bay Municipal Water District	Yes	Yes
Humboldt County Planning Department	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		
Manila Community Services District	Yes	Yes
City of Arcata	Yes	Yes
Fieldbrook-Glendale Community Services District	Yes	Yes

McKinleyville Community Services District	Yes	Yes
City of Eureka	Yes	Yes
College of the Redwoods	Yes	Yes
NOTES:		

FIGURES