2024 ANNUAL WATER SUPPLY AND DEMAND ASSESSMENT

FOR

CITY OF EUREKA, CALIFORNIA

Prepared for:

City of Eureka

City Hall
531 K Street - Third Floor
Eureka, CA 95501-1146

June 2024

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SECTION 1 INTRODUCTION

The City of Eureka's (City's) 2024 Annual Water Supply and Demand Assessment is intended to meet the requirements established in Water Code Section 10632(a)(2) which includes the following minimum procedures:

- The written decision-making process that an urban water supplier will use each year to determine its water supply reliability.
- The key data inputs and assessment methodology used to evaluate the urban water supplier's water supply reliability for the current year and one dry year, including all of the following:
    - (i) Current year unconstrained demand, considering weather, growth, and other influencing factors, such as policies to manage current supplies to meet demand objectives in future years, as applicable.
    - (ii) Current year available supply, considering hydrological and regulatory conditions in the current year and one dry year. The annual supply and demand assessment may consider more than one dry year solely at the discretion of the urban water supplier.
    - (iii) Existing infrastructure capabilities and plausible constraints.
    - (iv) A defined set of locally applicable evaluation criteria that are consistently relied upon for each annual water supply and demand assessment.
    - (v) A description and quantification of each source of water supply. Water Code Section 10632.1

1.1 Decision Making Process

The City's Annual Water Supply and Demand Assessment, as described in the Cities Water Shortage Contingency Plan (2021), will follow the approximate schedule listed below:

- Second week of May – Data collection, receive the HBMWD Annual Water Assessment.
- Third week of May – Data evaluation. Determine current year unconstrained demand, current year available supply, identify existing infrastructure capabilities and plausible constraints, and generate the Draft-Annual Water Supply and Demand Assessment.
- Fourth week of May – Annual Water Supply and Demand Assessment reviewed by the Director of Public Works and the City Manager and finalized.
- First week in June – Notice of public meeting.
- Third week in June – Report presented to the City Council.
- July 1 - Annual Water Supply and Demand Assessment to the Department of Water Resources.

1.2 Data and Methodologies

COE prepared the 2024 Annual Water Supply and Demand Assessments utilizing the following data:

- Projected current year unconstrained demand.
- Projected current year available supply.
- HBMWD Annual Water Supply and Assessment.

The above data was evaluated with similar methodologies to the analysis of water supply reliability contained in the Eureka Water Shortage Contingency Plan (FES, June 2021).

SECTION 2: Humboldt Bay Municipal Water District 2024 Annual Water Supply and Demand Assessment

The City of Eureka purchases water under contract from the Humboldt Bay Municipal Water District (HBMWD). The 2024 Annual Water Supply and Demand Assessment is included in Appendix A. HBMWD's 2024 Annual Assessment states that "There are no constraints on the water source for the District."

SECTION 3: Infrastructure Capabilities and Plausible Constraints

The City of Eureka's water distribution system has redundancy in supply by having dual transmission pipelines from HBMWD. The City of Eureka has an intertie with Humboldt Community Services District (HCSD) for use in an emergency. The City of Eureka also has an oversized water reservoir, and all water pumping equipment are mechanically redundant with backup emergency power. Additionally, the City has portable generators as a second power backup.

SECTION 4: Conclusions

Based on the analysis and conclusions contained in the 2024 HBMWD Annual Water Supply and Demand Assessment, the City of Eureka will have sufficient water supply to meet their demand over the next 12 months even under historic drought conditions.

APPENDIX A

HUMBOLDT BAY MUNICIPAL WATER DISTRICT 2024 ANNUAL WATER SUPPLY AND DEMAND ASSESSMENT

Humboldt Bay Municipal Water District

Annual Water Supply and Demand Assessment

Prepared by:

Humboldt Bay Municipal Water District

828 7th Street

Eureka, CA 95501

June 7, 2024

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A. INTRODUCTION

1. System Overview

HBMWD operates two separate and distinct water systems: a domestic water system which supplies treated drinking water; and an industrial system which supplies untreated raw water to large industrial users for industrial purposes. HBMWD's system consists of the following facilities:

- R. W. Matthews Dam which forms Ruth Reservoir in southern Trinity County
- Gosselin Hydro-Electric Power Plant at R. W. Matthews Dam
- Diversion, pumping and control facilities adjacent to the Mad River near Essex at the John R. Winzler Operations and Control Center
- Storage and treatment facilities
- Two separate and distinct pipeline systems which deliver treated drinking water or untreated raw water to HBMWD's customers.

R. W. Matthews Dam impounds runoff from the upper quarter of the Mad River basin, an area of approximately 121 square miles. The capacity of Ruth Reservoir, impounded by Matthews Dam, is 48,030 acre-feet.

A portion of the water stored in Ruth Lake is released each summer and fall to satisfy HBMWD's downstream diversion requirements, as well as maintain minimum bypass flow requirements in the Mad River below Essex. Although HBMWD impounds water at Ruth Lake and diverts water at Essex, the operations do not significantly affect the natural flow regime in the Mad River.

The total volume of water impounded and diverted by HBMWD represents a small percentage of the natural yield of the Mad River watershed. The Mad River's average annual discharge into the Pacific Ocean is just over 1,000,000AF. Ruth Reservoir, in its entirety, represents less than 5% of the total average annual runoff from the Mad River basin. The total 48,030 AF capacity of Ruth Reservoir is not drawn down each year, so the amount of winter-season runoff captured in the reservoir is yet a smaller percentage of the total runoff. With respect to diversions, the current withdrawal rate at Essex averages 10 million gallons per day (11,000 AF per year), which is only 1% of the total annual average runoff of the Mad River watershed. This diversion is accomplished by extracting river water from the underlying aquifer via Ranney Collectors. In the winter months, additional filtration is provided by an in-line filtration facility. The full diversion capacity of 75 MGD (84,000 AF per year) is just 8% of the total annual average runoff of the watershed. The balance of the capacity above that diverted via the Ranney Collectors can be pumped from a screened surface diversion, also at Essex.

2. Plan Preparation

Per the California Water Code (**CWC*) §10632.1, an*** urban water supplier shall conduct an annual water supply and demand assessment pursuant to subdivision (a) of Section 10632 and, on or before July 1 of each year, submit an annual water shortage assessment report to the department with information for anticipated shortage, triggered shortage response actions, compliance and enforcement actions, and communication actions consistent with the supplier's water shortage contingency plan.

CWC states that on or before July 1, 2022, and every year after, each Supplier shall prepare its Annual Assessment and submit an Annual Shortage Report to DWR. The Annual Shortage Report is due by July 1 of every year, as required by Water Code Section 10632.1.

CWC §10632(a)(2) The procedures used in conducting an annual water supply and demand assessment that include, at a minimum, both of the following:
(A) The written decision-making process that an urban water supplier will use each year to determine its water supply reliability.
(B) The key data inputs and assessment methodology used to evaluate the urban water supplier's water supply reliability for the current year and one dry year, including all of the following:

(i) Current year unconstrained demand, considering weather, growth, and other influencing factors, such as policies to manage current supplies to meet demand objectives in future years, as applicable.

(ii) Current year available supply, considering hydrological and regulatory conditions in the current year and one dry year. The annual supply and demand assessment may consider more than one dry year solely at the discretion of the urban water supplier.

(iii) Existing infrastructure capabilities and plausible constraints.

(iv) A defined set of locally applicable evaluation criteria that are consistently relied upon for each annual water supply and demand assessment.

(v) A description and quantification of each source of water supply.

The April 2022 Annual Water Supply and Demand Assessment Guidance and April 23, 2024 Guidance Addendum were utilized in preparation of the District's 2024 Annual Water Supply and Demand Assessment.

B. DECISION MAKING PROCESS TO DETERMINE WATER SUPPLY RELIABILITY

1. Process to Determine Water Supply Reliability

Since the early 1960s, the District has reliably supplied water to customers in the greater Humboldt Bay area of Humboldt County, California. The District provides treated, potable water for domestic and business use to seven municipalities (wholesale customers), as well as approximately 200 retail customers. From the early 1960s to the 1990s, the District also provided untreated surface water to two industrial customers (pulp mills). One of the larger pulp mills ceased operations in the 1990s and the last pulp mill ceased operation in 2009.

As a result of these changes in customers and water demands, the District now has more than enough water supply to serve existing and future customers, even during drought years. Our source of water, Ruth Lake reservoir has filled multiple times during drought years and supplies a consistent, reliable source of water, thereby reducing any challenges to water supply availability. The District is evaluating options for the use of this additional water supply, including expansion of demand within its service territory, transfers to other users and dedication of portions of its water rights to instream flow enhancement.

a. Stages of Action

There are five defined drought action stages (see Chart 1). These stages correspond to standardized water shortage levels (up to 10, 20, 30, 40, and 50 percent shortage). The stages and corresponding

reservoir shortage levels vary on a seasonal basis as a result of water use and supply also typically varying on a seasonal basis. These stages may be implemented with or without a formal declaration of a water emergency by the District's Board of Directors. In the event circumstances merit or require a declaration of a water shortage emergency, it is the intent of the District to rely on this plan to provide the primary framework to deal with such an emergency. The triggers attached to each stage are not intended to be absolute. Circumstances not currently foreseeable may dictate moving to a higher action stage before the trigger levels for that stage are reached. Conversely, action stage implementation may be postponed or suspended if there is sufficient natural flow in the river to meet downstream needs. Action stages will be terminated as rain, runoff, and lake levels permit.

Chart 1: HBMWD Six Defined Drought Action Stages

Drought Triggers Action Stage	Domestic Reduction	Industrial Reduction	Total Percent Supply Reduction	Delivered Water (Municipal, MGD)	Delivered Water (Industrial, MGD)	Total Delivered (MGD)	Maximum Draft (MGD)
1	0%	0%	0%	10	40	50	75
2	5%	5%	5%	9.5	38	47.5	50
3	10%	50%	42%	9	20	29	30
4	20%	70%	60%	8	12	20	20
5	30%	95%	82%	7	2	9	10
6*							

*Level 6 is blank because the probability of ever reaching this level is incredibly low. As of June 7, 2024 our Ruth Lake Reservoir (which is 48,000 AF) is at 94% capacity.

2. Key Data Inputs and Assessment Methodology used to Evaluate Supply Reliability

a. Single Driest Year

The water year ending in 1977 was the driest recorded for the District since 1962, far drier than any other. Rainfall in the Ruth area was 29 inches, or 41% of normal (69.8 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 (959,071 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 (69.8 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.

b. Multiple Dry Water Years

The five water years between October 1990 and September 1994 represent the driest five multiple years recorded for the District:

- Rainfall for this period averaged 49 inches per year, or 70% of normal.

- Of the five water years, the driest year for rainfall was water year 1991/1992 with 37 inches, or 53% of normal.
- Flows into Ruth Lake via the Mad River averaged 64,000 AFY, or 37% 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 39,062 AF which is 81% of capacity (48,030
- AF) and 95% of normal (41,000 AF).

The runoff for the watershed above the District's diversion facilities for these five water years were:
- 1990: 571,815 AFY, or 60% of normal (959,071 AFY).
- 1991: 371,300 AFY, or 39% of normal.
- 1992: 282,794 AFY, or 29% of normal (driest water year of the five).
- 1993: 1,175,052 AFY, or 119% of normal.
- 1994: 434,979 AFY, or 44% of normal.

c. Stages and Conditions

An analysis was performed to develop reservoir operating curves and establish "action stages" or "trigger levels" that prompt various responses, dependent upon reservoir levels at various times of the year. The analysis established five drought action stages. See Chart 1. District engineers developed an Operating Curve. This Operating Curve outlines the specific water supply conditions that are applicable to each stage. Stage implementation will occur as a result of the reservoir level at a given time of year. For example, if the reservoir storage level was at 25,000 acre-feet in November (up to 50% reservoir shortage), Stage 2 would be implemented.

Portions of water demand that need to be included when considering draft from the reservoir include domestic use, industrial use, and instream flow dedications. The municipalities that HBMWD serves currently use an average of approximately 10 MGD of District water. There are currently no industrial customers; however, there is potential for industrial customers in the future. There is also a minimum of 5 cfs that is to be released from the dam for fish flows. The District's Habitat Conservation Plan and Water Rights permit also establish minimum bypass flows (fish flows) that must always be present in the river (see Chart 2).

Chart 2 Mad River Flow Requirements for Fish

Time Frames	Flow at Hwy 299 Bridge (cfs)
October 1 – October 15	30
October 16 – October 31	50
November 1 – June 30	75
July 1 – July 31	50
August 1 – August 31	40
September 1 – September 30	30

The flow values given in the chart above are the flows that need to be measured at the Highway 299 bridge (USGS Gauge # 11481000) near the District's operation facilities at Essex, and they do not necessarily reflect flows that need to be released from the reservoir, as there are contributing flows from tributaries to the Mad River below the reservoir. Furthermore, flows at the Highway 299 bridge are permitted to be as low as the "natural flow" calculation if that value is lower than those given in Chart 2 above. The District will always maintain the minimum of 5 cfs as required, and has historically endeavored to meet the minimum flows as established in Chart 2 to support healthy fish life. However, it is likely that in the event of a longer-term drought and during periods of the higher conservation Stages being enacted, the District may resort to the natural flow requirement and reduce discharges accordingly.

For the purpose of determining trigger responses, the following assumptions were made:

- The District is operating both its domestic and industrial systems.
- A domestic water delivery of 10 MGD and an industrial water delivery of 40 MGD were used. Although the industrial water system is not currently in use, this assumption accounts for the potential for future industrial water demand. It should also be noted, however, that the Operating Curve is based on total flow released from the reservoir (e.g. in Stage 2, 50 MGD can be released), and this flow can be apportioned based on domestic and industrial water consumption at that point in time.
- Because instream flow dedication requirements vary throughout the year, and can vary depending upon natural flow conditions, these flows were not included. However, flows released from the dam during the various action stages are generally above the flows that are required per the above Chart 2.

The operating curves that were established give maximum draft rates for each of the five different drought action stages. The conservation action boundaries were developed based on these maximum draft rates, the amount of storage remaining over time at a given draft rate, drought of record (1976-1977) inflow, typical evaporation losses, and common reservoir level trends during the period of record (1969-2020). Throughout the period of record, reservoir levels have generally been lowest from October to January, and highest from March to May. The trigger levels have been established to account for these seasonal variations (e.g. a storage level of 30,000 AF, up to 40% reservoir shortage, would be in Stage 1 in November, but it would be in Stage 3 in May).

The storage during the drought follows the general pattern of the operating curves that have been generated. During the drought, reservoir storage never dropped below 10,800 AF.

While the 2012-2016 drought was significant for the State of California, it should be noted that the Ruth Reservoir filled every year during this most recent drought. The reservoir level remained in the Stage 1 action level (maximum draft of 75 MGD) for most of the 2012-2016 drought. There were a few occasions when the reservoir level triggered Stage 2 action, and one occasion when the reservoir level triggered Stage 3 action. The highest drought trigger stage that was reached from 2012-2016 was Stage 3 (maximum draft of 30 MGD, which is well below the District's current average draft rate of 10 MGD). This occurred for a brief period during January-February of 2014, and the reservoir was filled by the end of February 2014.

Please see attached Tables 1-5 provided by DWR for specific data on demands, supplies, water shortage assessment and actions.

d. Constraints on Water Sources

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

Information > Demands > Water Supply > Assessment > Actions > Attachments > Submit to DWR

Table 1: Information

Type of Supplier (REQUIRED TO CHECK ONE OR BOTH)	
Supplier is a wholesaler	☑
Supplier is a retailer	☑
Will you be submitting two separate reports or a combined report?	Combined Report
Year Covered By This Shortage Report (REQUIRED)	
Start: July 1,	2024
End: June 30,	2025
Volume Unit for Reported Supply and Demand (must use same unit throughout)	AF
Supplier's Annual Assessment Planning Cycle (REQUIRED)	
Start Month:	July
End Month:	June
Data Reporting Interval Used:	Monthly (12 data points per year)
Water Supplier's Contact Information (REQUIRED)	
Water Supplier Name:	**Humboldt Bay Municipal Water District**
Contact Name:	John Friedenbach
Contact Title:	General Manager
Street Address:	828 7th Street
Zip Code:	95501
Phone Number:	707-443-5018
Email Address:	friedenbach@hbmwd.com
Report Preparer's Contact Information (If different from above)	
Preparer's Organization Name:	Humboldt Bay Municipal Water District
Preparer's Contact Name:	Sherrie Sobol
Phone Number:	707-443-5018
Email Address:	reportnotifications@hbmwd.com
Supplier's Water Shortage Contingency Plan	
WSCP Title:	HBMWD Water Shortage Contingency Plan
WSCP Adoption Date:	6/10/2021
Other Annual Assessment Related Activities (optional)	
Activity	**Timeline/Outcomes/Links/Notes**

WUEdata - Water Shortage - Humboldt Bay Municipal Water District

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Table 2: Demands[1]

Next

Use Type	Start Year:	2024	Volumetric Unit Used:					AF							
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. (Add additional rows as needed)	Additional Description (as needed)	Level of Treatmen for Non-Potable Supplies Drop down list	Projected Water Demands - Volume[2]												Total by Water Demand Type
			Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun[3]	
Demands Served by Potable Supplies															
Sales to other agencies			774.32	830.31	754.9	695.78	683.44	636.86	738.42	652.5	676.28	724.3	733.16		7,900
Single Family			0.8	0.82	0.66	0.44	0.42	0.78	0.74	0.53	0.62	0.67	0.75		7
Multi-Family			0.02	0.04	0.07	0.02	0.02	0.19	0.02	0.01	0.02	0.02	0.01		0
Commercial			0.14	0.18	0.15	0.1	0.08	0.07	0.1	0.08	0.11	0.12	0.1		1
Institutional/Governmen			1.39	1.16	1.15	1.08	0.98	0.32	1.26	1.13	1.04	1.39	1.12		12
TOTAL BY MONTH (POTABLE)			776.67	832.51	756.93	697.42	684.94	638.22	740.54	654.25	678.07	726.5	735.14	0	7,921
Demands Served by Non-Potable Supplies															
TOTAL BY MONTH (NON-POTABLE)			0	0	0	0	0	0	0	0	0	0	0	0	0
NOTES															

[1]Projections are based on best available data at time of submitting the report and actual demand volumes could be different due to many factors.

[2]Units of measure (AF, CCF, MG) must remain consistent.

[3]When optional monthly volumes aren't provided, please enter yearly volumes in the June column (Jun[3]).

Clear All Unsaved Changes | Save and Exit

WUEdata - Water Shortage - Humboldt Bay Municipal Water District

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Table 3: Water Supplies[1]

Next

Water Supply	Start Year:	2024				Volumetric Unit Used:		AF								
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. (Add additional rows as needed)	Additional Detail on Water Supply	Projected Water Supplies - Volume[2]													Water Quality Drop Down List	Total Right or Safe Yield * (optional)
		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun[3]	Total by Water Demand Type		
Potable Supplies																
Surface water (not desal.)		7,134.96	7,134,39	6,904.8	7,134.96	6,904.8	7,134.96	7,134.96	6,444.48	7,134.96	6,904.8	7,134.96		7,204,36		84,008
TOTAL BY MONTH (POTABLE)		7,134.96	7,134,39	6,904.8	7,134.96	6,904.8	7,134.96	7,134.96	6,444.48	7,134.96	6,904.8	7,134.96	0	7,204,36		84,008
Non-Potable Supplies																
TOTAL BY MONTH (NON-POTABLE)		0	0	0	0	0	0	0	0	0	0	0	0	0		0
NOTES																

[1]Projections are based on best available data at time of submitting the report and actual demand volumes could be different due to many factors.

[2]Units of measure (AF, CCF, MG) must remain consistent.

[3]When optional monthly volumes aren't provided, please enter yearly volumes in the June column (Jun[3]).

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WUEdata - Water Shortage - Humboldt Bay Municipal Water District

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Table 3: Water Supplies[1]

Next

Water Supply	Start Year:	2024								Volumetric Unit Used:	AF					
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. (Add additional rows as needed)	Additional Detail on Water Supply	Projected Water Supplies - Volume[2]												Total by Water Demand Type	Water Quality Drop Down List	Total Right or Safe Yield * (optional)
		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun[3]			
Potable Supplies																
Surface water (not desal.)		7,134.96	7,134,39	6,904.8	7,134.96	6,904.8	7,134.96	7,134.96	6,444.48	7,134.96	6,904.8	7,134.96		7,204,36		84,008
TOTAL BY MONTH (POTABLE)		7,134.96	7,134,39	6,904.8	7,134.96	6,904.8	7,134.96	7,134.96	6,444.48	7,134.96	6,904.8	7,134.96	0	7,204,36		84,008
Non-Potable Supplies																
TOTAL BY MONTH (NON-POTABLE)		0	0	0	0	0	0	0	0	0	0	0	0	0		0
NOTES																

[1]Projections are based on best available data at time of submitting the report and actual demand volumes could be different due to many factors.

[2]Units of measure (AF, CCF, MG) must remain consistent.

[3]When optional monthly volumes aren't provided, please enter yearly volumes in the June column (Jun[3]).

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WUEdata - Water Shortage - Humboldt Bay Municipal Water District

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Table 5: Actions

Next

Year Covered By This Shortage Report			July 1,	2024	to June 30,	2025
Anticipated Shortage Level Drop Down List of State Standard Levels (1-6) and Level 0 (No Shortage)	ACTIONS: Demand Reduction, Supply Augmentation, and Other Actions. (Drop Down List) These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.	Is Action Already Being Implemented? (Y/N)	How much is action going to reduce the shortage gap?		When is shortage response action anticipated to be implemented?	
			Enter Amount	(Drop Down List) Select % or Volume Unit	Start Month	End Month
Add additional rows as needed						
0 (No Shortage)	No Actions	No				
Notes: (NOTES Section to be used only for clarifying details, and not for listing specific actions. Actions need to entered into rows above.)						

If you plan Supply Augmentation Actions then you must enter WSCP Benefits from Supply Augmentation Actions into Table 4.
If you plan Demand Reduction Actions then you must enter WSCP Benefits from Demand Reduction Actions into Table 4.
If an Action is planned to be implemented in multiple non-contiguous periods of the year, the supplier is to make separate entries on multiple rows for the same action spanning the different implementation periods.

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APPENDIX B

EUREKA 2024 ANNUAL WATER SUPPLY AND DEMAND ASSESSMENT
REPORTING TABLES

Table 1. Annual Assessment Information	
Type of Supplier (Required to check one or two)	
Supplier is a Wholesaler	☐
Supplier is a Retailer	☑
If you are both a wholesaler and retailer, will you be submitting two separate reports or a combined report?	Number of Reports
Year Covered By This Shortage Report (Required)	
Start: July 1,	2024
End: June 30,	2025
Volume Unit for Reported Supply and Demand: *(Must use the same unit throughout)*	MG
Supplier's Annual Assessment Planning Cycle (Required)	
Start Month:	July
End Month:	June
Data Interval:	Monthly (12 data points per year)
Water Supplier's Contact Information (Required)	
Water Supplier's Name:	City of Eureka
Contact Name:	Brian Issa
Contact Title:	Deputy Director of PW-Field Ops
Street Address:	531 K Street
ZIP Code:	95501
Phone Number:	707-441-4290
Email Address:	bissa@ci.eureka.ca.gov
Report Preparer's Contact Information *(if different from above)*	
Preparer's Organization Name:	Freshwater Environmental Services
Preparer's Contact Name:	Orrin Plocher
Phone Number:	(707) 498-9071
Email Address:	Orrin@freshwaterenvironmentalservices.com
Supplier's Water Shortage Contingency Plan	
WSCP Title	Water Shortage Contingency Plan
WSCP Adoption Date	7/20/2021
Other Annual Assessment Related Activities	
Activity	**Timeline/ Outcomes / Links / Notes**
Annual Assessment/ Shortage Report Title:	Optional
Annual Assessment / Shortage Report Approval Date:	MM/DD/YYYY
Other Annual Assessment Related Activities:	Optional
(Add rows as needed)	

	= From prior tables
	= Auto calculated

Table 2: Water Demands[1]

Use Type			Start Year:	2024			Volumetric Unit Used[2]:	MG						
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 (Add additional rows as needed)	Additional Description (as needed)	Level of Treatment for Non-Potable Supplies **Drop-down list**	Projected Water Demands - Volume[3]												
			Jul	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Total by Water Demand Type**
Demands Served by Potable Supplies															
Single Family			37.042	29.046	31.331	36.014	29.458	22.287	31.315	30.569	29.083	25.250	26.931	38.108	366.4359772
Multi-Family			8.694	6.094	6.790	9.758	9.588	6.151	8.127	8.244	7.762	6.536	7.171	9.398	94.31347992
Commercial			24.731	21.454	22.587	25.935	20.097	12.127	25.84	24.05	20.81	21.15	21.57	27.69	268.0364799
Other Potable	Outside city limits		0.954	0.945	1.254	1.112	0.300	0.627	0.992	0.958	0.605	0.678	1.112	1.067	10.603648
Sales to other agencies			6.181	8.063	7.286	6.472	17.275	17.319	18.562	17.153	20.085	17.926	13.289	6.600	156.2107
Losses			25.107	41.166	26.969	7.143	26.940	43.392	22.952	15.685	25.984	30.016	29.843	13.788	308.9850628
															0
															0
															0
															0
Total by Month (Potable)			102.70955	106.76828	96.216352	86.434724	103.65805	101.90318	107.79215	96.655808	104.32787	101.55831	99.914724	96.646352	1204.585348
Demands Served by Non-Potable Supplies															
															0
															0
															0
															0
															0
Total by Month (Non-Potable)			0	0	0	0	0	0	0	0	0	0	0	0	0

Notes: List considered factors impacting demands

[1]Projections are based on best available data at time of submitting the report and actual demand volumes could be different due to many factors.

[2]Units of measure (AF, CCF, MG) must remain consistent.

[3]When opting to provide other than monthly volumes (bi-monthly, quarterly, or annual), please see directions on entering data for Projected Water Demand in the Table Instructions.

Optional (for comparison purposes)	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total
Last year's total demand													0
Two years ago total demand													0
Three years ago total demand													0
Four years ago total demand													0

	= From prior tables
	= Auto calculated

Table 3: Water Supplies[1]

Water Supply		Start Year:	2024				Volumetric Unit Used[2]:	MG							
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 (Add additional rows as needed)	Additional Detail on Water Supply	Projected Water Supplies - Volume[3]													Water Quality **Drop-down List**	Total Right or Safe Yield* (optional)
		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total by Water Supply Type		
Potable Supplies																
Purchased/Imported Water	HBMWD	217	217	210	217	210	217	217	203	217	210	217	210	2562		
														0		
														0		
														0		
														0		
Losses														0		
														0		
														0		
														0		
														0		
Total by Month (Potable)		217	217	210	217	210	217	217	203	217	210	217	210	2562		0
Non-Potable Supplies																
														0		
														0		
														0		
														0		
														0		
Total by Month (Non-Potable)		0	0	0	0	0	0	0	0	0	0	0	0	0		0

Notes: List hydrological and regulatory conditions, infrastructure capabilities, and plausible constraints which may impact the water supplies

[1]Projections are based on best available data at time of submitting the report and actual supply volumes could be different due to many factors.

[2]Units of measure (AF, CCF, MG) must remain consistent.

[3]When opting to provide other than monthly volumes (bi-monthly, quarterly, or annual), please see directions on entering data for Projected Water Supplies in the Table Instructions.

Optional (for comparison purposes)	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total
eAR Reported Total Water Supplies													**0**

	= Auto calculated
	= From prior tables
	= For manual input

Table 4(P): Potable Water Shortage Assessment[1] — Start Year: 2024 — Volumetric Unit Used[2]: MG

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun[3]	Total
Anticipated Unconstrained Demand	102.7	106.8	96.2	86.4	103.7	101.9	107.8	96.7	104.3	101.6	99.9	96.6	1204.59
Anticipated Total Water Supply	217.0	217.0	210.0	217.0	210.0	217.0	217.0	203.0	217.0	210.0	217.0	210.0	2562.00
Surplus/Shortage w/o WSCP Action	114.3	110.2	113.8	130.6	106.3	115.1	109.2	106.3	112.7	108.4	117.1	113.4	1,357.4
% Surplus/Shortage w/o WSCP Action	111%	103%	118%	151%	103%	113%	101%	110%	108%	107%	117%	117%	113%
State Standard Shortage Level	0	0	0	0	0	0	0	0	0	0	0	0	0
Planned WSCP Actions[4]													
Benefit from WSCP: Supply Augmentation													0.0
Benefit from WSCP: Demand Reduction													0.0
Revised Surplus/Shortage with WSCP	114.3	110.2	113.8	130.6	106.3	115.1	109.2	106.3	112.7	108.4	117.1	113.4	1357.4
% Revised Surplus/Shortage with WSCP	111%	103%	118%	151%	103%	113%	101%	110%	108%	107%	117%	117%	113%

[1]Assessments are based on best available data at time of submitting the report and actual volumes could be different due to many factors.

[2]Units of measure (AF, CCF, MG) must remain consistent.

[3]When optional monthly volumes aren't provided, verify Tables 2 and 3 use the same columns for data entry and are reflected properly in Table 4 and make sure to use those same columns to enter the benefits from Planned WSCP Actions. Please see directions on the shortage balancing exercise in the Table Instructions. If a shortage is projected, the supplier is highly recommended to perform a monthly analysis to more accurately identify the time of shortage.

[4]If you enter any WSCP Benefits, then you must enter the corresponding planned Actions into Table 5.

	= Auto calculated
	= From prior tables
	= For manual input

Table 4(NP): Non-Potable Water Shortage Assessment[1] — Start Year: 2024 — Volumetric Unit Used[2]: MG

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun[3]	Total
Anticipated Unconstrained Demand: Non-Potable	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
Anticipated Total Water Supply: Non-Potable	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Surplus/Shortage w/o WSCP Action: Non-Potable	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
% Surplus/Shortage w/o WSCP Action: Non-Potable													
Planned WSCP Actions[4]													
Benefit from WSCP: Supply Augmentation													0.0
Benefit from WSCP: Demand Reduction													0.0
Revised Surplus/Shortage with WSCP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
% Revised Surplus/Shortage with WSCP													

[1]Assessments are based on best available data at time of submitting the report and actual volumes could be different due to many factors.

[2]Units of measure (AF, CCF, MG) must remain consistent.

[3]When optional monthly volumes aren't provided, verify Tables 2 and 3 use the same columns for data entry and are reflected properly in Table 4 and make sure to use those same columns to enter the benefits from Planned WSCP Actions. Please see directions on the shortage balancing exercise in the Table Instructions. If a shortage is projected, the supplier is highly recommended to perform a monthly analysis to more accurately identify the time of shortage.

[4]If you enter any WSCP Benefits, then you must enter the corresponding planned Actions into Table 5.

Table 5: Planned Water Shortage Response Actions			July 1, 2024		to June 30, 2025	
Anticipated Shortage Level Drop-down List of **State Standard Levels** (1 - 6) and Level 0 (No Shortage)	**ACTIONS[1]: Demand Reduction, Supply Augmentation, and Other Actions. (Drop-down List)** These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.	Is action already being implemented? **(Y/N)**	How much is action going to reduce the shortage gap? **(Optional)**		When is shortage response action anticipated to be implemented[2]?	
			Enter Amount	*(Drop-down List) Select % or Volume Unit*	*Start Month*	*End Month*
Add additional rows as needed						
NOTES: Notes Section to be used only for clarifying details, and not for listing specific actions. Actions must be entred into table rows above.						

[1]If you plan Supply Augmentation Actions then you must enter WSCP Benefits from Supply Augmentation Actions into Table 4. If you plan Demand Reduction Actions then you must enter WSCP Benefits from Demand Reduction Actions into Table 4.

[2]If an Action is planned to be implemented in multiple non-contiguous periods of the year, please make separate entries on multiple rows for the same action spanning the different implementation periods.