

May 6, 2024

To: Technical Advisory Committee to Sonoma Water

From: Paul Piazza, Water Use Efficiency Manager, Sonoma Water

**RE: Sonoma Water's 2024 Annual Water Supply and Demand Assessment**

In April 2024, Sonoma Water completed a Water Shortage Assessment Report to be filed with the California Department of Water Resources (DWR) in compliance with California Water Code (Water Code) §10632.1. The Water Code requires urban water suppliers to conduct an annual water supply and demand assessment (AWSDA) and submit the results to DWR by July 1 each year. The AWSDA is intended for urban water suppliers to evaluate their water supply reliability for the current year and one subsequent dry year, with the dry-year period defined as occurring between July 1 and June 30 of the following year. The results are used to determine if a shortage is projected and to identify the appropriate shortage-level activation of a supplier's adopted Water Shortage Contingency Plan, if needed.

Sonoma Water worked collaboratively with its contractors to obtain estimates of normal year (unconstrained) demands and combined those with developed demand estimates for its smaller customers to compare to current year supplies and projections of a subsequent dry year. Sonoma Water's AWSDA results are being used by the contractors to similarly complete and submit their own AWSDA to DWR, where supplies from Sonoma Water may make up only part of a water supply portfolio relied on to meet their customer demands.

Based on the results of Sonoma Water's supply and demand analysis, no shortage level is triggered for the planning period July 1, 2024, through June 30, 2025. Sonoma Water, its contractors, and other member agencies of the Sonoma-Marín Saving Water Partnership are continuing work to achieve long-term water demand reductions consistent with the State Water Board's newly proposed water conservation Standards and Urban Water Use Objectives.

Sonoma Water will continue to assess supply and demand conditions through the remainder of 2024 to determine if changed conditions warrant further action.

Attachment: Sonoma Water's 2024 Water Shortage Assessment Report

FINAL

Sonoma Water  
Water Shortage Assessment Report

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Prepared for  
Sonoma Water  
Santa Rosa, California  
April 2024



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# Table of Contents

List of Figures .....	iii
List of Tables .....	iii
List of Abbreviations .....	iv
1. Introduction.....	1-1
1.1 Sonoma Water Overview .....	1-1
1.2 Service Area .....	1-1
1.3 Water Supplies.....	1-3
1.3.1 Surface Water.....	1-3
1.3.2 Groundwater .....	1-3
1.4 Transmission System .....	1-4
2. Annual Water Supply and Demand Assessment.....	2-1
2.1 Purpose .....	2-1
2.2 Methodology.....	2-2
2.2.1 Decision-making Process.....	2-3
2.3 Key Data Inputs .....	2-4
2.3.1 Unconstrained Demand .....	2-4
2.3.2 Available Water Supply .....	2-6
2.3.3 Existing Infrastructure Capabilities and Plausible Constraints .....	2-8
2.4 Supply and Demand Analysis.....	2-8
3. Shortage Response Actions.....	3-1
3.1 Planned Response Actions.....	3-1
3.2 Ongoing Reassessment.....	3-1
4. Conclusion .....	4-1
5. References.....	5-1
Appendix A: AWSDA 2024 Reporting Tables.....	A

## List of Figures

---

Figure 1-1. Sonoma Water service areas and water transmission facilities.....	1-2
Figure 2-1. Assessment of Russian River supply conditions.....	2-4
Figure 2-2. Timeline for Russian River modeling and AWSDA .....	2-6

## List of Tables

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Table 2-1. Annual Assessment Information .....	2-2
Table 2-2. Projected Water Demands.....	2-5
Table 2-3. Projected Water Supplies .....	2-7
Table 2-4. Potable Water Shortage Assessment .....	2-8
Table 3-1. Planned Shortage Response Actions.....	3-1

## List of Abbreviations

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ac-ft	acre-feet
ASR	aquifer storage and recovery
AWSDA	Annual Water Supply and Demand Assessment
cfs	cubic feet per second
CNRFC	California Nevada River Forecast Center
FIRO	forecast-informed reservoir operations
HI	hydrologic index
Marin Water	Marin Municipal Water District
PG&E	Pacific Gas and Electric
RR ResSim	Russian River System Model
Sonoma Water	Sonoma County Water Agency
SWRCB	State Water Resources Control Board
TUCP	Temporary Urgency Change Petition
UWMP	Urban Water Management Plan
WSCP	Water Shortage Contingency Plan

## Section 1

# Introduction

California Water Code §10632.1 requires urban water suppliers to conduct an annual water supply and demand assessment (AWSDA) to evaluate water supply reliability for the current year and one subsequent dry year. This Water Shortage Assessment Report presents an overview of Sonoma County Water Agency (Sonoma Water) and findings from its 2024 assessment.

### 1.1 Sonoma Water Overview

Sonoma Water provides wholesale water, principally from the Russian River, to eight water contractors, other water transmission system customers, and Marin Municipal Water District (Marin Water), collectively referred to as Sonoma Water’s customers. The water contractors and other water transmission system customers that Sonoma Water serves include:

- **Water Contractors:** Cities of Santa Rosa, Petaluma, Rohnert Park, Cotati, and Sonoma; Town of Windsor; North Marin Water District; and Valley of the Moon Water District
- **Other Water Transmission System Customers:** Forestville Water District, California-American Water Company (Larkfield-Wikiup area), Kenwood Village Water Company, Lawndale Mutual Water Company, Penngrove Water Company, County of Sonoma, State of California, and Santa Rosa Junior College

Sonoma Water’s customers retail water directly to different types of water users, including single-family and multi-family residences; commercial, industrial, and institutional/governmental users; and landscape irrigators. As of 2020, Sonoma Water and its customers collectively serve approximately 630,000 people, and the population is projected to grow to more than 770,000 by 2045 as detailed in Sonoma Water’s adopted Urban Water Management Plan (UWMP).

Sonoma Water also supplies small quantities of water (when available) from its transmission system to surplus water customers, and allows Russian River customers (Town of Windsor, City of Healdsburg, Camp Meeker Recreation and Park District, and Occidental Community Services District) to divert water from the Russian River under Sonoma Water’s water rights using their own facilities. In this regard, the Town of Windsor is unique in that it is the only contractor that diverts Russian River water under Sonoma Water’s water rights using its own facilities while also purchasing water directly through a connection to Sonoma Water’s transmission system.

### 1.2 Service Area

Sonoma Water’s service area covers a large part of Sonoma County and the eastern portion of Marin County. The service areas of Sonoma Water’s customers are shown on Figure 1-1, as are some of Sonoma Water’s water supply, storage, and transmission facilities. Sonoma Water’s infrastructure is distributed over a large geographic area with varying topography.

In common with much of the California coastal area, Sonoma Water’s service area experiences a wet and dry season. Approximately 93 percent of the annual precipitation normally falls during the wet season (October to May) with a large percentage of the rainfall typically occurring during three or four major winter storms. Given the region’s dependence on these intermittent storms, reservoir management is an important part of Sonoma Water’s supply operations.

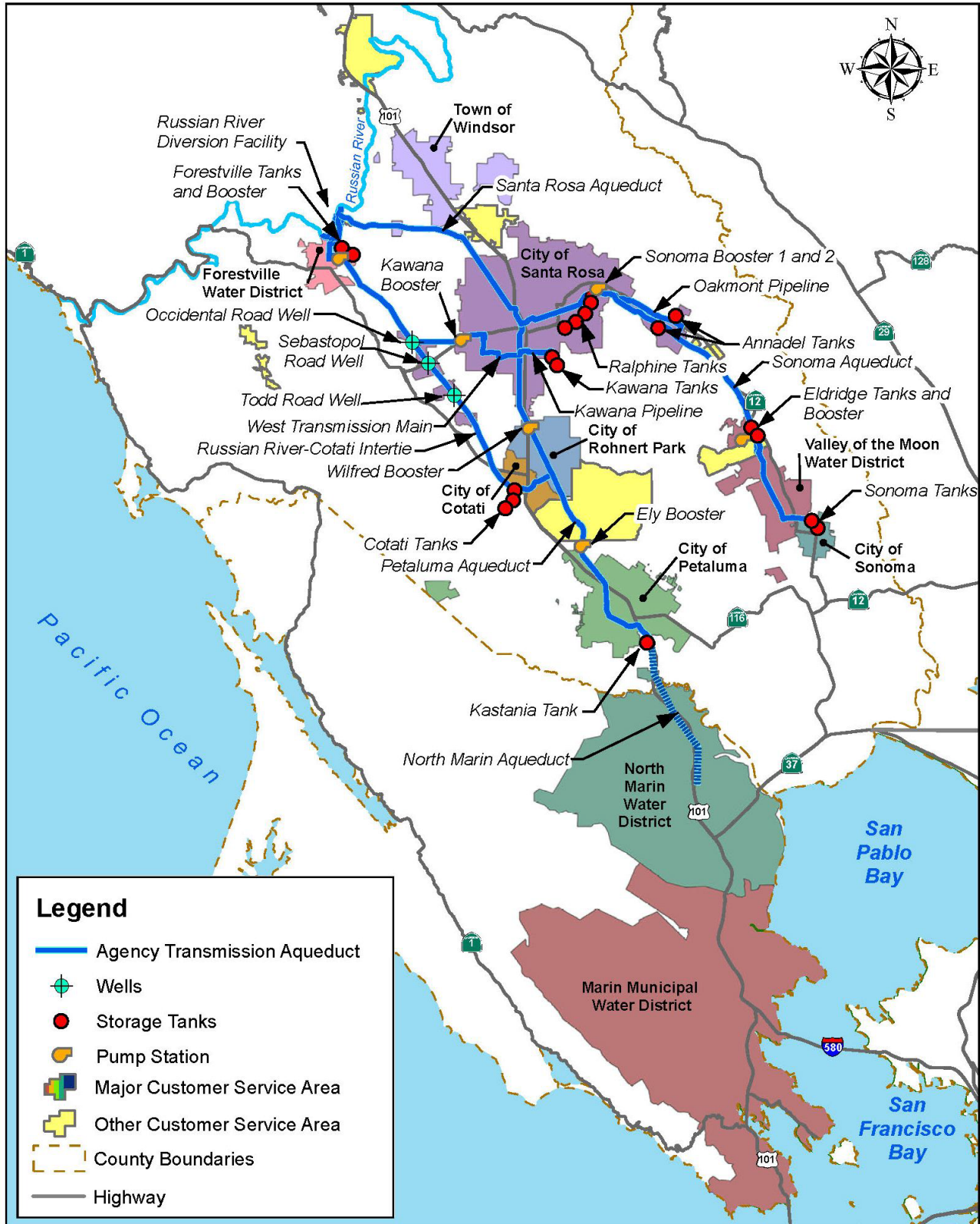


Figure 1-1. Sonoma Water service areas and water transmission facilities

## 1.3 Water Supplies

Sonoma Water mostly depends on the Russian River for water supply, with groundwater supply from the Santa Rosa Plain as a secondary source (to be used during drought or when the Russian River is otherwise constrained). Almost all of Sonoma Water's customers have other water supplies in addition to those provided by Sonoma Water, such as local surface water, local groundwater, and recycled water.

### 1.3.1 Surface Water

The Russian River watershed drains an area of 1,485 square miles that includes much of Sonoma and Mendocino counties. The headwaters of the Russian River are located in central Mendocino County, approximately 15 miles north of Ukiah. The Russian River is approximately 110 miles long and flows generally southward to Mirabel Park, where it changes course and flows westward to the discharge point at the Pacific Ocean near Jenner, approximately 20 miles west of Santa Rosa.

Two federal projects impound water in the Russian River watershed: the Coyote Valley Dam on the East Fork Russian River east of Ukiah in Mendocino County (forming Lake Mendocino), and the Warm Springs Dam on Dry Creek (a tributary of the Russian River) northwest of Healdsburg in Sonoma County (forming Lake Sonoma). Lake Mendocino has a design supply capacity of 111,000 acre-feet (ac-ft) per year, captures runoff from the surrounding 105-square-mile drainage area, and receives diverted water from Pacific Gas and Electric's (PG&E) Potter Valley Project on the Eel River. Lake Sonoma has a design supply capacity of 245,000 ac-ft and captures runoff from 130 square miles of surrounding drainage area.

Sonoma Water has been implementing forecast-informed reservoir operations (FIRO) at Lake Mendocino under a major deviation to the flood control manual to better inform decisions to retain or release water from storage based on improved weather and water forecasting. The major deviation, which has been in effect since it was approved by the United States Army Corps of Engineers (USACE) in February 2021, authorizes USACE to store up to an additional 11,650 ac-ft of water in Lake Mendocino at its discretion during the wet season and begin progressing toward the summertime water supply pool of 111,000 ac-ft two weeks earlier than usual. Work is also moving forward to evaluate the viability of implementing FIRO at Lake Sonoma. In 2023, USACE approved a request from Sonoma Water for a minor deviation to the Lake Sonoma/Warm Springs Dam Water Control Manual. The deviation authorizes USACE to store up to an additional 9,500 ac-ft of water in Lake Sonoma at its discretion until February 15, increasing to 19,000 ac-ft on March 1. The minor deviation expires on September 30, 2026. More information about FIRO is available online at <https://www.sonomawater.org/firo>.

### 1.3.2 Groundwater

Although 14 groundwater basins and sub-basins have been identified in Sonoma County, Sonoma Water has groundwater supply wells only in the Santa Rosa Plain sub-basin of the Santa Rosa Valley basin. These groundwater supply wells are located along Sonoma Water's aqueduct in the Santa Rosa Plain at Occidental Road, Sebastopol Road, and Todd Road. The three well-site facilities were initially constructed in 1977 as emergency supply wells in response to the 1976-1977 drought, and two of the wells were replaced in the late 1990s. The three wells were used for water production relatively continuously between 2000 and 2009. After 2009, Sonoma Water shifted use of the wells to an as-needed basis (i.e., during periods of drought or when Russian River supplies are otherwise constrained), as was the case in 2013-2015. The wells have generally been offline since 2015 due to the need to update treatment facilities at the well sites.



The Todd Road well was reactivated and put into production during summer 2022 at the end of the most recent drought. The Sebastopol Road well was modified in 2023 and is anticipated to be available for production in late 2024 after completion of topside improvements. The second Occidental Road well was replaced in 2023 and is anticipated to be available for production in early 2025 after completion of topside improvements.

Topside improvements at both the Sebastopol Road and Occidental Road wells include equipping the wells to accommodate aquifer storage and recovery (ASR) capacity. Planned ASR operations involve the recharge of drinking water from the aqueduct into the wells for storage within the aquifer system, which would then be recovered when needed during future dry periods or Russian River system supply constraints. ASR pilot studies at both wells are anticipated to occur in fall and winter 2025 and will be used to further inform future operational strategies for the wells.

## 1.4 Transmission System

Sonoma Water's transmission system extends from Sonoma Water's Russian River diversion facilities located near Forestville to the Santa Rosa, Petaluma, and Sonoma valleys. The transmission system consists of more than 92 miles of pipelines that range in diameter from 16 to 54 inches, six booster pump stations, and 18 storage tanks with a combined storage capacity of 129 million gallons.

## Section 2

# Annual Water Supply and Demand Assessment

In compliance with California Water Code §10632.1, Sonoma Water's AWSDA evaluates water supply reliability for the current year and one subsequent dry year. This section presents the AWSDA purpose, methodology, key inputs, and results.

## 2.1 Purpose

The AWSDA forecasts near-term water supply conditions to ensure shortage response actions are triggered in a timely manner. This annual assessment provides a description and quantification of each source of Sonoma Water's water supply compared to water demands for the current calendar year, with consideration of one subsequent dry year. Sonoma Water's annual assessment information is provided in Table 2-1.

**Table 2-1. Annual Assessment Information**

Annual Assessment Information	Supplier Data
Annual assessment year start	07/01/2024
Annual assessment year end	06/30/2025
Volume unit for reported supply and demand	ac-ft
<b>Supplier's Annual Assessment Planning Cycle</b>	
Supplier's annual assessment planning cycle start month	01/01/2024
Supplier's annual assessment planning cycle end month	12/31/2025
Data reporting interval used	Monthly
<b>Water Supplier's Contact Information</b>	
Water supplier's name	Sonoma County Water Agency
Contact name	Paul Piazza
Contact title	Water Use Efficiency Manager
Street address	404 Aviation Boulevard
ZIP code	95403
Phone number	707.547.1968
Email address	paul.piazza@scwa.ca.gov
<b>Report Preparer's Contact Information</b>	
Report preparer's organization name	Brown and Caldwell
Preparer's contact name	Katie Ruby
Phone number	925.210.2256
Email address	kruby@brwnaald.com
<b>Supplier's Water Shortage Contingency Plan</b>	
Supplier's Water Shortage Contingency Plan (WSCP) title	Water Shortage Contingency Plan
WSCP adoption date	05/11/2021
<b>Other Annual Assessment Related Activities</b>	
Annual Assessment/Shortage Report Title	Sonoma Water Water Shortage Assessment Report
Annual Assessment/Shortage Report Approval Date	Not applicable

## 2.2 Methodology

Sonoma Water uses the following steps as described in the water shortage contingency plan (WSCP) to develop the AWSDA:

- 1. Quantify current calendar year water supply.** Sonoma Water uses actual supply conditions as of May of the current year and assumes the remainder of the current year (through June 30) to be dry.
- 2. Quantify subsequent calendar year supply.** The subsequent year water supplies (July 1 through June 30) are estimated by assuming dry conditions. Sonoma Water bases the estimate of dry season water supplies on a statistical analysis of the historical hydrologic record and the selection of an appropriate exceedance frequency.



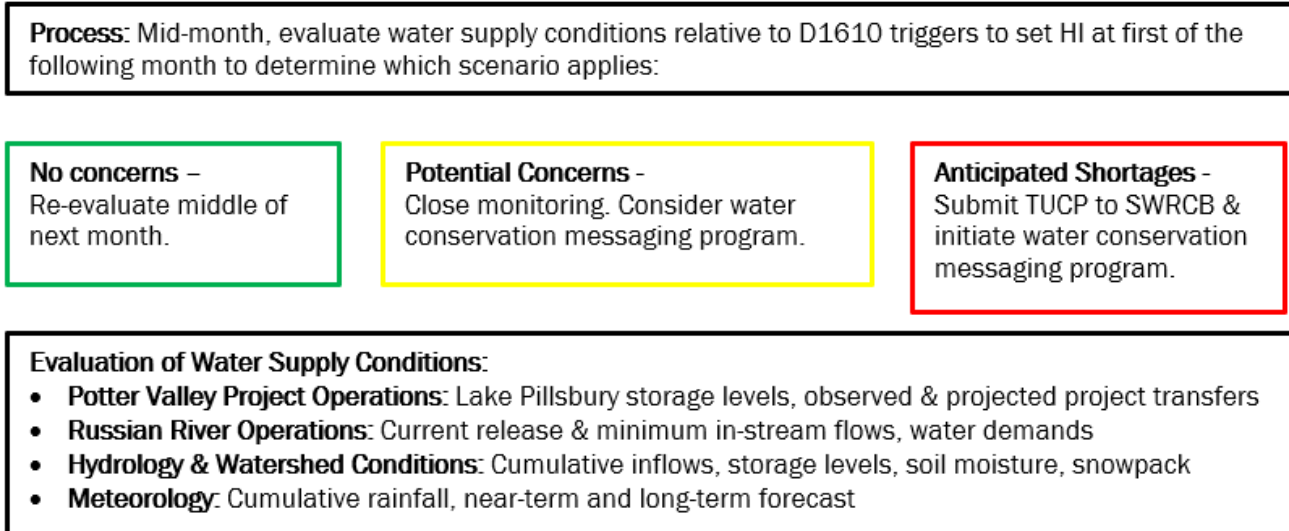
3. **Identify infrastructure constraints.** The existing infrastructure capabilities and plausible constraints as they impact Sonoma Water’s ability to deliver supplies to meet expected customer water use needs in the coming year are considered. Examples of plausible constraints include minimum instream flows and groundwater production capacity.
4. **Quantify unconstrained water demand.** Sonoma Water uses the unconstrained water demand projections from the most recent UWMP unless more recent demand projections are provided by the water contractors.
5. **Compare projected water supplies to demands.** The water supplies identified in the AWSDA represent the water demand that can be met while maintaining adequate storage in Lake Mendocino and Lake Sonoma.
6. **Identify and quantify anticipated water supply shortages, if any.** The forecast of water supplies in comparison to water demands will identify and quantify any anticipated water shortages for the current year and subsequent dry year (July 1 through June 30). The forecast will be coordinated with Sonoma Water’s customers, and if anticipated water shortages are identified, the appropriate shortage stage will be selected as outlined in the WSCP.
7. **Implications of forecasted water shortage.** Depending on the extent of the forecasted water shortage for the current calendar year and particularly the summer months, Sonoma Water may implement voluntary reductions of its diversions and request its customers to conserve and increase the use of local supplies. The State Water Resources Control Board (SWRCB) could also mandate Sonoma Water to reduce diversions. For example, mandatory reductions could be required (as specified in Sonoma Water’s water rights) if Lake Sonoma levels dropped below 100,000 ac-ft prior to July 15 of a calendar year.

### 2.2.1 Decision-making Process

As detailed in Sonoma Water’s WSCP, the decision-making process for the AWSDA begins in December, when Sonoma Water staff start monitoring water supply conditions prior to the January 1 trigger date for setting minimum instream flow requirements according to the water year classification of Decision 1610.<sup>1</sup> Decision 1610 requires reassessment of the water year classification each month until June 1, when it is set for the remainder of the year. During this time, Sonoma Water evaluates water supply conditions at least mid-month prior to each of the Decision 1610 trigger dates to determine whether anticipated conditions at the trigger date warrant any actions by Sonoma Water, such as initiating a water conservation messaging program or filing a Temporary Urgency Change Petition (TUCP) with the SWRCB to change the hydrologic index (HI) used to establish the water supply condition and minimum instream flows. This decision-making process is summarized on Figure 2-1.

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<sup>1</sup> Sonoma Water’s water rights permits establish minimum instream flow requirements for fish and wildlife protection and recreation. These minimum instream flow requirements vary based on the hydrologic classifications of *Normal*, *Dry*, and *Critical* water supply conditions as defined by Sonoma Water’s water rights permits and SWRCB Decision 1610, adopted in 1986.



**Figure 2-1. Assessment of Russian River supply conditions**

Although Sonoma Water continually monitors water supply conditions and acts accordingly, actual conditions as of March 2024 serve as the starting point for this AWSDA. Sonoma Water develops supply projections for the remainder of the current year (through June 30) and the subsequent year (July 1 through June 30 of the following year) assuming dry conditions.

For the demand portion of the assessment, Sonoma Water uses the unconstrained demand projections from the most recent UWMP unless more recent demand projections are provided by the contractors. If the assessment forecasts a shortage in the upcoming year, Sonoma Water will activate the appropriate level of the adopted water shortage contingency plan and coordinate with the customers to implement response actions.

After the AWSDA is submitted, Sonoma Water will continue to monitor supplies and reassess shortage conditions, adjusting response actions as needed in coordination with its customers.

## 2.3 Key Data Inputs

The AWSDA compares projected unconstrained demand for all of Sonoma Water’s wholesale customers to the expected available water supply based on current available supply and anticipating one dry year ahead. The analysis is performed on a monthly time step and looks ahead to the next 12 months (July 1, 2024, through June 30, 2025), assuming dry conditions. The key data inputs and associated assumptions are described below.

### 2.3.1 Unconstrained Demand

Unconstrained demand represents the total demand for Sonoma Water’s supply, absent any restrictions or demand reduction actions. During development of the 2020 UWMP, each of Sonoma Water’s contractors and Marin Water provided annual projected unconstrained demands for Sonoma Water supply for calendar years 2021 through 2025 (as well as projections in 5-year increments through 2045), considering population growth, available local supplies, and other factors. Each of Sonoma Water’s contractors and Marin Water were provided the opportunity to update their unconstrained demands for calendar years 2024 and 2025 to reflect any changed conditions or new information. Several of Sonoma Water’s customers updated their demands.

For Sonoma Water’s other customers, which are not required to prepare UWMPs due to their small size, the 2024 and 2025 demands are interpolated from the 2020 and 2025 unconstrained demand estimates developed by Sonoma Water for the 2020 UWMP based on historical demands, population growth projections, and assumed available local supplies.

The total unconstrained demand also includes transmission system losses (assumed as 3 percent) and expected diversions by the Russian River customers (City of Healdsburg, Town of Windsor, Camp Meeker, and Occidental) under Sonoma Water’s water rights permits. For the Russian River customers (not including Windsor), it was assumed that their actual diversions in 2020 are representative of unconstrained demands for the current year and subsequent dry year.

These annual demand projections serve as the basis for unconstrained demand in the current year and subsequent dry year, which for the purpose of this analysis is defined as July 1, 2024, through June 30, 2025. Since the unconstrained demands provided for the 2020 UWMP were presented on an annual basis, Sonoma Water converted the total annual demand for calendar years 2024 and 2025 to estimated monthly demands for the AWSDA. The annual demands were converted to monthly values using the average transmission system deliveries over the 3-year period of 2018-2020 (representative of typical, non-drought conditions). A seasonal monthly demand curve was developed based on the average distribution over this period for two subsets of customers based on their county. Due to significant local supplies and water supply agreement limitations, the water demand for Sonoma Water’s customers in Marin County has a unique seasonality that peaks earlier than customers in Sonoma County.

Total projected monthly unconstrained demands for July 2024 through June 2025 are presented in Table 2-2.

**Table 2-2. Projected Water Demands**

Month <sup>a</sup>	Projected Water Demand Volume <sup>b, c</sup> (ac-ft)
July	5,940
August	5,896
September	5,286
October	5,056
November	4,400
December	3,395
January	3,319
February	3,193
March	3,924
April	3,851
May	5,227
June	5,929
<b>Total</b>	<b>55,418</b>

- a. *Projected water demands start in 2024 and continue into 2025.*
- b. *Projected potable water demands include demands for all points of diversion under Sonoma Water’s water rights, with assumed 3 percent system losses to calculate total water transmission production to meet demands.*
- c. *Projections are based on best available data at time of submitting the report; actual demand volumes could be different due to many factors.*



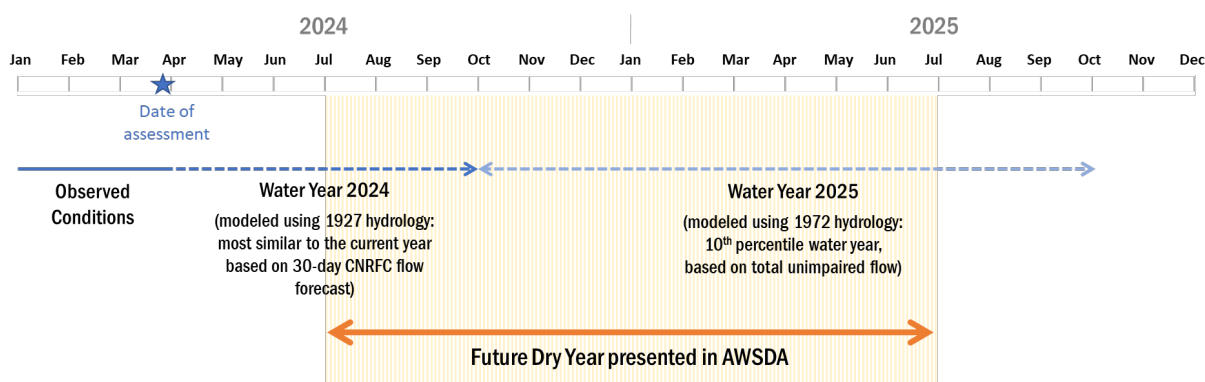
### 2.3.2 Available Water Supply

Most of Sonoma Water’s water supply comes from the Russian River, with groundwater from the Santa Rosa Plain as a secondary source. Projections of future available water supply are based on Sonoma Water’s operations modeling of the Russian River system, using the Russian River System Model (RR ResSim). RR ResSim incorporates various data inputs, operational criteria, and constraints, including hydrologic conditions, levels of demand, storage levels and operational criteria for Lake Mendocino and Lake Sonoma (e.g., flood control releases), diversions from the Eel River into the Russian River (computed separately using the Potter Valley Project ResSim Model), minimum instream flow requirements, and requirements of the Russian River Biological Opinion. More detail on RR ResSim and the associated inputs are described in Section 5.1.6 of Sonoma Water’s 2020 UWMP (<https://www.sonomawater.org/UWMP>).

Sonoma Water simulates a range of scenarios using RR ResSim to understand multiple possible outcomes and takes an adaptive approach by continually monitoring water supply conditions and adjusting model inputs accordingly. For the purpose of the AWSDA, the following hydrologic assumptions were used to characterize the current year and subsequent dry year (Note: given that hydrologic data from water years<sup>2</sup> 1911 through 2017 serve as the basis of the hydrology in the model, the simulations were performed on a water-year basis and then presented on a monthly basis for July 2024 through June 2025).

- **For the remainder of water year 2024 (April through September):** Starting with actual observed conditions at the time of the assessment (late March 2024), Sonoma Water projected conditions through the remainder of the water year using 1927 hydrology, which represents the most similar hydrologic conditions to the current year based on the California Nevada River Forecast Center (CNRFC) 30-day flow forecast. Since the current year as defined in the AWSDA ends June 30, 2024, the last 3 months in water year 2024 represent the first 3 months of the subsequent dry year in the AWSDA (July through September 2024).
- **For water year 2025 (October 2024 through September 2025):** Conditions for water year 2025 were modeled using the 1972 hydrology (tenth percentile water year based on total Russian River unimpaired flow). For the purpose of the AWSDA, results are presented on a monthly basis through June 2025.

Figure 2-2 shows how the modeled water years overlap with and inform the future dry year presented in the AWSDA.



**Figure 2-2. Timeline for Russian River modeling and AWSDA**

<sup>2</sup> A water year is defined as the 12-month period between October 1 and September 30 of the following calendar year.



Another key assumption that informs Russian River supply availability is minimum instream flow requirements. Since December 27, 2023, Sonoma Water has been operating under a temporary urgency change order issued by the SWRCB, which approved using storage thresholds at Lake Mendocino to determine the water supply condition classification. Based on those storage thresholds, the water supply condition has been *Normal* since January 1, 2024, and will remain *Normal* for the remainder of the calendar year. As required by the 2008 Russian River Biological Opinion, Sonoma Water filed TUCPs with the SWRCB in April 2024 to request that the minimum instream flow requirements be reduced to 125 cubic feet per second (cfs) on the Upper Russian River and 70 cfs on the Lower Russian River from May 1 through October 15. Starting October 16 through December 31, the minimum instream flow requirements will revert back to the terms and conditions in Sonoma Water’s water rights permits, which will increase the minimum instream flow to 150 cfs on the Upper Russian River and 125 cfs on the Lower Russian River. Beginning in January 2025, the minimum instream flow requirements were assumed to be based on Lake Mendocino storage levels as defined in the June 2024 Temporary Urgent Change Order, since Sonoma Water has previously been required to file a TUCP under similar dry conditions as assumed for this analysis.

Sonoma Water generally does not use groundwater as a normal year source of supply and will be resting its groundwater sources due to ample surface water supplies.

The results of the water supply modeling show that there is sufficient water supply to meet the projected unconstrained demand through June 2025, assuming dry conditions; therefore, the projected supply quantities shown in Table 2-3 sum to the total demand.

**Table 2-3. Projected Water Supplies**

Month <sup>a</sup>	Surface Water Supply: Russian River Diversion Volume <sup>b, c</sup> (ac-ft)	Groundwater Supply: Santa Rosa Plain Production Wells Volume <sup>b</sup> (ac-ft)	Total Volume <sup>b</sup> (ac-ft)
July	5,940	0	5,940
August	5,896	0	5,896
September	5,286	0	5,286
October	5,056	0	5,056
November	4,400	0	4,400
December	3,395	0	3,395
January	3,319	0	3,319
February	3,193	0	3,193
March	3,924	0	3,924
April	3,851	0	3,851
May	5,227	0	5,227
June	5,929	0	5,929
<b>Total</b>	<b>55,418</b>	<b>0</b>	<b>55,418</b>

- a. Projected water supplies start in 2024 and continue into 2025.
- b. Projections are based on best available data at time of submitting the report; actual supply volumes could be different due to many factors.
- c. Includes all diversions under Sonoma Water’s water rights.



### 2.3.3 Existing Infrastructure Capabilities and Plausible Constraints

The projected available water supply presented in Section 2.3.2 reflects Sonoma Water’s current and expected infrastructure capabilities. Sonoma Water practices conjunctive management of surface water and groundwater and typically reserves use of groundwater as a backup supply (e.g., during dry periods or when Russian River supplies are otherwise constrained). Given currently available surface water supply, Sonoma Water does not plan to use groundwater from July 2024 through June 2025 to promote sustainability of the groundwater basin and avoid potential undesirable results under the Sustainable Groundwater Management Act.

There are several regulatory and operational constraints that affect Sonoma Water’s Russian River supply, as described in Section 5.1 of the 2020 UWMP. These constraints—such as minimum instream flows and PG&E’s Potter Valley Project operations—are incorporated into the RR ResSim model and are based on a certain set of assumptions. The results of the AWSDA represent the most likely outcome based on expected conditions, though it is possible that decisions by regulatory agencies or other circumstances outside of Sonoma Water’s control could further constrain Sonoma Water’s ability to divert Russian River supply. Sonoma Water continues to monitor conditions in coordination with its customers and will update modeling assumptions if there are any substantial changes.

## 2.4 Supply and Demand Analysis

Table 2-4 provides a comparison of projected water supply and unconstrained demand for one subsequent dry year (July 1, 2024, through June 30, 2025). The supply and demand assessment shows that there is sufficient water supply to meet the projected unconstrained demand; therefore, the projected supply is shown as equal to the demand.

**Table 2-4. Potable Water Shortage Assessment**

Month <sup>a</sup>	Anticipated Unconstrained Demand Volume <sup>b</sup> (ac-ft)	Anticipated Total Water Supply Volume <sup>b</sup> (ac-ft)	Shortage without WSCP Action (ac-ft)
July	5,940	5,940	0
August	5,896	5,896	0
September	5,286	5,286	0
October	5,056	5,056	0
November	4,400	4,400	0
December	3,395	3,395	0
January	3,319	3,319	0
February	3,193	3,193	0
March	3,924	3,924	0
April	3,851	3,851	0
May	5,227	5,227	0
June	5,929	5,929	0
<b>Total</b>	<b>55,418</b>	<b>55,418</b>	<b>0</b>

a. Projected water supplies and demands start in 2024 and continue into 2025.

b. Projections are based on best available data at time of submitting the report; actual volumes could be different due to many factors.

## Section 3

# Shortage Response Actions

Based on the results of the supply and demand analysis, no shortage level is triggered; however, Sonoma Water continues to coordinate with its contractors and Marin Water to support ongoing water-saving measures in alignment with pending water use efficiency standards.

### 3.1 Planned Response Actions

The results of the supply and demand analysis show no projected supply shortage through June 2025. Therefore, there are no planned shortage response actions (Table 3-1). However, Sonoma Water and its contractors will continue to implement long-term conservation programming consistent with the developing statewide water conservation framework and in support of ongoing water waste and non-functional turf prohibitions.

**Table 3-1. Planned Shortage Response Actions**

Anticipated Shortage Level <sup>a</sup>	Water Shortage Response Actions	How Much is Action Going to Reduce the Shortage Gap?	Anticipated Implementation of Shortage Response Action: Start Month	Anticipated Implementation of Shortage Response Action: End Month
0 (No Shortage)	No Actions	0%	Not applicable	Not applicable

a. Shortage assessment for July 1, 2024 through June 30, 2025, assuming dry conditions.

### 3.2 Ongoing Reassessment

Sonoma Water will continue to assess supply and demand conditions through the remainder of 2024 to determine if there is a need to file another TUCP to address potential changed inflow conditions to Lake Mendocino that could result from reduced Potter Valley Project diversions due to a proposed PG&E flow variance. These decisions will largely depend on whether dry conditions persist through the fall and winter, when the Russian River watershed typically experiences the most precipitation.

## Section 4

# Conclusion

The results of the AWSDA do not indicate a shortage in the upcoming year (even if conditions are dry), as water storage levels in Lake Mendocino and Lake Sonoma are currently full.

Sonoma Water will continue to monitor supplies and demands to reassess shortage conditions and adjust response actions, if needed.

## Section 5

# References

California Department of Water Resources. *Annual Water Supply and Demand Assessment Guidance*, April 2022.

California Department of Water Resources. *Annual Water Shortage Assessment Reports – Guidance Addendum*, May 10, 2023.

Sonoma Water, *2020 Urban Water Management Plan*, June 2021.

Sonoma Water, *Water Shortage Contingency Plan*, June 2021.

# Appendix A: AWSDA 2024 Reporting Tables

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<b>Table 1. Annual Assessment Information</b>	
<b>Annual Assessment Information</b>	
<b>Year Covered By This Shortage Report (Required)</b>	
Start: July 1,	2024
End: June 30,	2025
<b>Volume Unit for Reported Supply and Demand:</b> <i>(Must use the same unit throughout)</i>	AF
<b>Supplier's Annual Assessment Planning Cycle (Required)</b>	
Start Month:	January
End Month:	December
<b>Data Interval:</b>	Monthly (12 data points per year)
<b>Water Supplier's Contact Information (Required)</b>	
Water Supplier's Name:	Sonoma County Water Agency
Contact Name:	Paul Piazza
Contact Title:	Water Use Efficiency Manager
Street Address:	404 Aviation Blvd
ZIP Code:	95403
Phone Number:	(707) 547-1968
Email Address:	paul.piazza@scwa.ca.gov
<b>Report Preparer's Contact Information</b> <i>(if different from above)</i>	
Preparer's Organization Name:	Brown and Caldwell
Preparer's Contact Name:	Katie Ruby
Phone Number:	(925) 210-2256
Email Address:	kruby@brwncald.com
<b>Supplier's Water Shortage Contingency Plan</b>	
<b>WSCP Title</b>	Water Shortage Contingency Plan
<b>WSCP Adoption Date</b>	5/11/2021
<b>Other Annual Assessment Related Activities</b>	
<b>Activity</b>	<b>Timeline/ Outcomes / Links / Notes</b>
Annual Assessment/ Shortage Report Title:	Sonoma Water Water Shortage Assessment Report
Annual Assessment / Shortage Report Approval Date:	not applicable
Other Annual Assessment Related Activities:	
(Add rows as needed)	

Table 2: Water Demands <sup>1</sup>																
Use Type		Start Year:	2024		Volumetric Unit Used <sup>2</sup> :										AF	
<b>Drop-down list</b> 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 <sup>3</sup>													Total by Water Demand Type
			Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun		
<b>Demands Served by Potable Supplies</b>																
All Demands	Includes demands for all points of diversion under Sonoma Water's water rights, with assumed 3% system losses to calculate Water Transmission Production to meet demands.		5940	5896	5286	5056	4400	3395	3319	3193	3924	3851	5227	5929	55418	
															0	
															0	
															0	
															0	
															0	
															0	
															0	
															0	
<b>Total by Month (Potable)</b>			5940	5896	5286	5056	4400	3395	3319	3193	3924	3851	5227	5929	55418	
<b>Demands Served by Non-Potable Supplies</b>																
															0	
															0	
															0	
															0	
															0	
<b>Total by Month (Non-Potable)</b>			0	0	0	0	0	0	0	0	0	0	0	0	0	
Notes: Projections are based on best available data at time of submitting the report; actual demand volumes could be different due to many factors.																
<sup>1</sup> Projections are based on best available data at time of submitting the report and actual demand volumes could be different due to many factors.																
<sup>2</sup> Units of measure (AF, CCF, MG) must remain consistent.																
<sup>3</sup> 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







Table 4(P): Potable Water Shortage Assessment <sup>1</sup>													Start Year: 2024		Volumetric Unit Used <sup>2</sup> :					AF		
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun <sup>3</sup>	Total									
Anticipated Unconstrained Demand	5940	5896	5286	5056	4400	3395	3319	3193	3924	3851	5227	5929	55418									
Anticipated Total Water Supply	5940	5896	5286	5056	4400	3395	3319	3193	3924	3851	5227	5929	55418									
Surplus/Shortage w/o WSCP Action	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	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%									
<b>State Standard Shortage Level</b>	0	0	0	0	0	0	0	0	0	0	0	0	0									
Planned WSCP Actions <sup>4</sup>																						
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	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%									

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

<sup>2</sup>Units of measure (AF, CCF, MG) must remain consistent.

<sup>3</sup>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.

<sup>4</sup>If you enter any WSCP Benefits, then you must enter the corresponding planned Actions into Table 5.

Table 4(NP): Non-Potable Water Shortage Assessment <sup>1</sup>													Start Year: 2024		Volumetric Unit Used <sup>2</sup> :					AF		
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun <sup>3</sup>	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 <sup>4</sup>																						
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																						

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

<sup>2</sup>Units of measure (AF, CCF, MG) must remain consistent.

<sup>3</sup>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.

<sup>4</sup>If you enter any WSCP Benefits, then you must enter the corresponding planned Actions into Table 5.



