

July 11, 2022

To: Technical Advisory Committee to Sonoma Water

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

RE: Sonoma Water's 2022 Annual Water Supply and Demand Assessment

On June 30, 2022, Sonoma Water completed and filed a Water Shortage Assessment Report 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) every year starting July 1, 2022. The AWSDA is intended for urban water suppliers to evaluate their water supply reliability for the current year and one subsequent dry 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 (WSCP) 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 another dry year. Sonoma Water's AWSDA results were 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; however to proactively preserve supplies for potential future dry years and to respond to recent State actions calling for conservation, Sonoma Water is voluntarily implementing shortage response actions consistent with Level 2 of its Water Shortage Contingency Plan. This was reflected in Sonoma Water's most recent Temporary Urgency Change Petition to the State Water Resources Control Board, in which a 20 percent voluntary reduction from July through October relative to 2020 was included by Sonoma Water. Additional Level 2 response actions include a continued public drought outreach campaign, hosting monthly drought town hall meetings, and increasing production from Sonoma Water's groundwater wells used conjunctively to offset Russian River supply during shortages in the river.

Sonoma Water will continue to assess supply and demand conditions through the remainder of 2022 to assess whether there is a need to file another TUCP and/or continue demand reduction measures into 2023.

Attachment: Sonoma Water's 2022 Water Shortage Assessment Report

Sonoma Water Water Shortage Assessment Report

Prepared for
Sonoma Water
Santa Rosa, California
June 2022

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List of Abbreviations

ac-ft	acre-feet
AWSDA	Annual Water Supply and Demand Assessment
cfs	cubic feet per second
FIRO	forecast-informed reservoir operations
HI	hydrologic index
Marin Water	Marin Municipal Water District
PG&E	Pacific Gas & 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

1.1 Agency Overview

Sonoma County Water Agency (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 then 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.

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 their 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, including hills, mountains, valleys, and bay flats.

In common with much of the California coastal area, Sonoma Water's service area experiences a wet and dry season during the year. Approximately 93 percent of the annual precipitation normally falls during the wet season (i.e., October to May) with a large percentage of the rainfall typically occurring during three or four major winter storms. These major storms often come in the form of an atmospheric river, which is the horizontal transport of large amounts of water vapor through the atmosphere along a narrow corridor. Given the region's dependence on these intermittent storms, reservoir management is an important part of Sonoma Water's supply operations. 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. Work is also moving forward to evaluate the viability of implementing FIRO at Lake Sonoma. More information about FIRO is available online at <https://www.sonomawater.org/firo>.

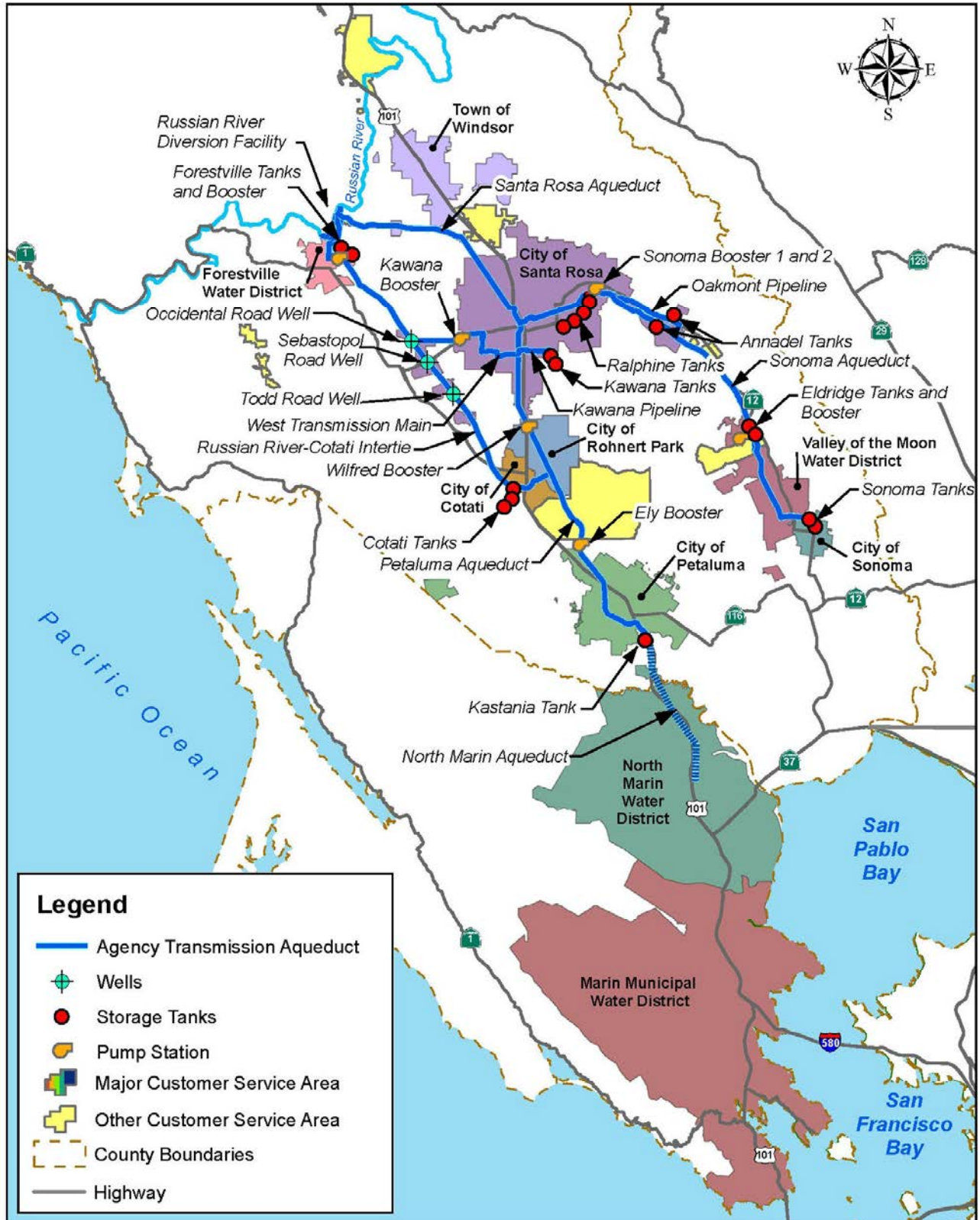


Figure 1-1. Sonoma Water service areas and water transmission facilities

1.3 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 & 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.

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 wells 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. Although the wells were operated continuously in the early 2000s, the use of the wells has shifted to as-needed use during periods of drought or when Russian River supplies are otherwise constrained.

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 85 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

California Water Code §10632.1 requires urban water suppliers to conduct an annual water supply and demand assessment (AWSDA) every year starting July 1, 2022. The AWSDA is intended for urban water suppliers to evaluate their water supply reliability for the current year and one subsequent dry year.

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	07/01/2022
Annual assessment year end	06/30/2023
Supplier's annual assessment planning cycle start month	01/01/2022
Supplier's annual assessment planning cycle end month	12/31/2023
Data reporting interval used	Monthly
Volume unit for reported supply and demand	acre-feet (ac-ft)
Water supplier's name	Sonoma County Water Agency
Contact name	Paul Piazza
Contact title	Principal Programs Specialist
Street address	404 Aviation Boulevard
ZIP code	95403
Phone number	(707) 547-1968
Email address	paul.piazza@scwa.ca.gov
Report preparer's organization name	Brown and Caldwell
Preparer's contact name	Katie Ruby
Phone number	(925) 210-2256
Email address	kruby@brwnclald.com
Supplier's Water Shortage Contingency Plan (WSCP) title	Water Shortage Contingency Plan
WSCP adoption date	05/11/2021

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 urban water management plan (UWMP) unless more recent demand projections are provided by the water contractors before May of the current year.
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 Decision 1610 trigger date for setting minimum instream flow requirements according to the water year classification.¹ 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

¹ 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.

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 in Figure 2-1.

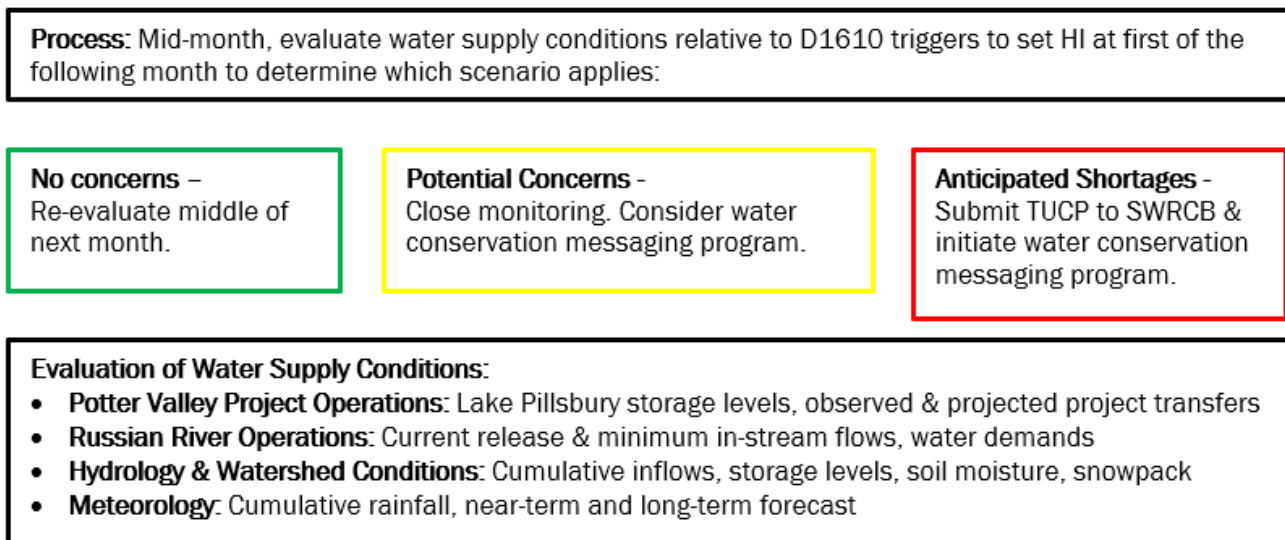


Figure 2-1. Assessment of Russian River supply conditions

Although Sonoma Water continually monitors water supply conditions and acts accordingly, actual conditions as of May serve as the starting point for the 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 before May of the current year. 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, 2022, through June 30, 2023), 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 five-year increments through 2045), considering population growth, available local supplies, and other factors. For

Sonoma Water’s other customers, which are not required to prepare UWMPs due to their small size, Sonoma Water developed unconstrained demand estimates 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. 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, 2022, through June 30, 2023. Since the unconstrained demands provided for the UWMP were presented on an annual basis, Sonoma Water converted the total annual demand for calendar years 2022 and 2023 to estimated monthly demands for the AWSDA. The annual demands were converted to monthly values using actual transmission system delivery data from the last 5 years to develop a seasonal demand curve.

Total projected monthly unconstrained demands for July 2022 through June 2023 are presented in Table 2-2.

Table 2-2. Projected Water Demands

Month ^a	Projected Water Demand Volume ^{b, c} (ac ft)
July	6,688
August	6,015
September	5,685
October	5,236
November	4,159
December	3,459
January	3,947
February	3,744
March	4,131
April	4,203
May	5,698
June	6,473
Total	59,436

a. Projected water demands start in 2022 and continue into 2023.

b. Projected potable water demands include 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.

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

2.3.2 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 years² 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 2022 through June 2023).

- **For the remainder of water year 2022 (June through September):** Starting with actual observed conditions at the time of the assessment (late May 2022), Sonoma Water projected conditions through the remainder of the water year using 1976 hydrology, which represents the tenth percentile June through September period based on unimpaired flow. Since the current year as defined in the AWSDA ends June 30, 2022, the last 3 months in water year 2022 represent the first 3 months of the subsequent dry year in the AWSDA (July through September 2022).
- **For water year 2023 (October 2022 through September 2023):** Conditions for water year 2023 were also modeled using the 1976 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 2023.

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

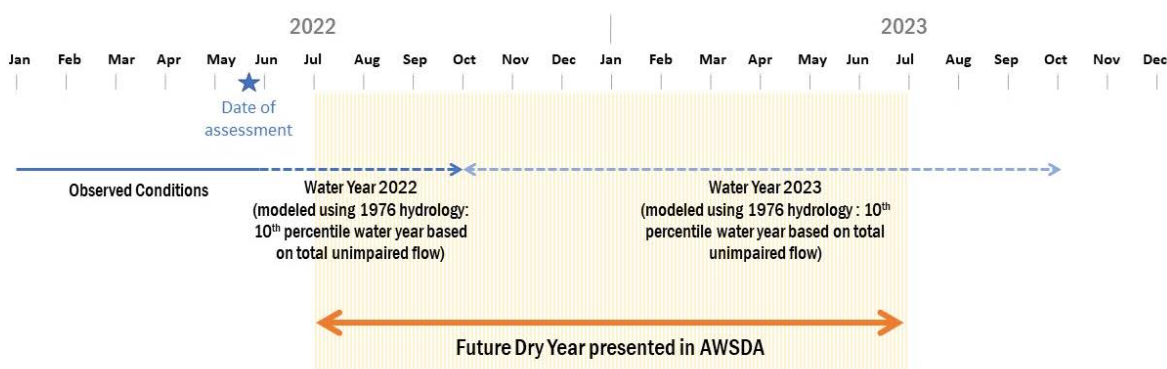


Figure 2-2. Timeline for Russian River modeling and AWSDA

² 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 10, 2021, Sonoma Water has been operating under a temporary urgency change order issued by the SWRCB, which established a *Critical* water supply condition in the Russian River and set minimum instream flows of 25 cubic feet per second (cfs) and 35 cfs in the upper and lower river, respectively. The AWSDA assumes that these minimum instream flows will continue until December 2022. Although the order expired on June 8, 2022, Sonoma Water filed another TUCP on May 26 to extend these minimum instream flows for another 180 days. The TUCP was subsequently approved by the SWRCB. From December 2022 through the remainder of the analysis, Sonoma Water assumes minimum instream flows will be governed by *Dry Spring 2* conditions under SWRCB Decision 1610.

Although Sonoma Water generally does not use groundwater as a normal year source of supply, given dry conditions, the AWSDA assumes use of the Todd Road Well (1.5 million gallons per day) starting June 1, 2022, and the Sebastopol Road well (2 million gallons per day) starting January 1, 2023, to preserve surface water supplies.

The results of the water supply modeling show that there is insufficient water supply to meet the projected unconstrained demand through June 2023, assuming dry conditions; therefore, the projected supply quantities shown in Table 2-3 sum to the total demand. Although model results show that the storage level in Lake Sonoma may drop below 100,000 ac-ft in November and December, it is expected to recover to above 100,000 ac-ft before triggering mandatory reductions (as may be required if storage levels drop below 100,000 ac-ft prior to July 15 of a calendar year).

Table 2-3. Projected Water Supplies

Month ^a	Surface Water Supply: Russian River Diversion Volume ^b (ac ft)	Groundwater Supply: Santa Rosa Plain Production Wells Volume ^{b, c} (ac ft)	Total Volume ^b (ac ft)
July	6,545	143	6,688
August	5,872	143	6,015
September	5,547	138	5,685
October	5,093	143	5,236
November	4,021	138	4,159
December	3,316	143	3,459
January	3,613	334	3,947
February	3,443	301	3,744
March	3,797	334	4,131
April	3,880	323	4,203
May	5,364	334	5,698
June	6,150	323	6,473
Total	56,640	2,796	59,436

a. Projected water supplies start in 2022 and continue into 2023.

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

c. Groundwater supply includes Todd Road Well (starting June 1, 2022) and Sebastopol Road Well (starting January 1, 2023). It is assumed that Todd Road Well will operate at 1.5 million gallons per day and Sebastopol Road Well will operate at 2 million gallons per day.

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, including groundwater well production capacity. 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 current dry conditions, Sonoma Water plans to pump from Todd Road well beginning this summer and is working to have the Sebastopol Road well online by January 1, 2023, in order to preserve Russian River supplies for potential subsequent dry years. In future normal and wet years, Sonoma Water will limit use of groundwater 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, 2022, through June 30, 2023). 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. Water Shortage Assessment

Month ^a	Anticipated Unconstrained Demand Volume ^b (ac ft)	Anticipated Total Water Supply Volume ^b (ac ft)	Shortage without WSCP Action
July	6,688	6,688	0
August	6,015	6,015	0
September	5,685	5,685	0
October	5,236	5,236	0
November	4,159	4,159	0
December	3,459	3,459	0
January	3,947	3,947	0
February	3,744	3,744	0
March	4,131	4,131	0
April	4,203	4,203	0
May	5,698	5,698	0
June	6,473	6,473	0
Total	59,436	59,436	0

a. Projected water supplies and demands start in 2022 and continue into 2023.

b. Projections are based on best available data at time of submitting the report and 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 to preserve supplies for potential future dry years and to respond to recent State actions calling for conservation, Sonoma Water is voluntarily implementing shortage response actions consistent with Level 2 of the WSCP adopted May 11, 2021.

3.1 Planned Response Actions

Although the results of the supply and demand analysis show no projected supply shortage through June 2023, as part of the TUCP recently filed by Sonoma Water, Sonoma Water and its contractors have committed to reducing total Russian River diversions by 20 percent from July 1 through October 31, relative to the same period in 2020. This action aligns with Governor Newsom's Executive Order N-7-22 issued March 28, 2022, and the SWRCB's subsequent adoption of an emergency regulation for urban water conservation on May 24, 2022. Among other requirements, the emergency regulation calls for urban water suppliers to implement the demand reduction actions identified in the supplier's adopted water shortage contingency plan for a shortage level of 10 to 20 percent (Level 2).³

As noted in Table 2 of Sonoma Water's WSCP (adopted May 11, 2021), shortage Level 2 corresponds to a voluntary reduction in Russian River diversions by Sonoma Water of 10 to 20 percent. Sonoma Water is working with its customers to achieve this reduction by:

- Increasing production from Sonoma Water's groundwater wells to offset Russian River supply
- Encouraging wholesale customers to use local supplies, where possible
- Holding monthly drought town halls
- Expanding public outreach through the Sonoma-Marin Saving Water Partnership, including:
 - Messaging (in English and Spanish) around actions customers can take to save water
 - Offering an online eco-friendly garden tour
 - Coordinating and promoting partner agencies' events

Planned water shortage response actions are summarized in Table 3-1.

³ The full adopted text of the emergency regulation can be accessed at:
https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2022/rs2022_0018.pdf

Table 3-1. Planned Shortage Response Actions

Anticipated Shortage Level ^a	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)	Other Actions ^b	20% ^b	July 2022	October 2022

a. Shortage assessment for July 1, 2022 through June 30, 2023, assuming dry conditions.

b. In order to help preserve surface water supply, Sonoma Water filed a TUCP with the State Board that includes a voluntary 20 percent reduction in Russian River diversions from July through October 2022. This action is consistent with the Governor's Executive Order N-7-22 and the recently adopted emergency regulation to implement the shortage response actions for a shortage level up to 20 percent (Level 2). Sonoma Water is coordinating with its retail water contractors to achieve this demand reduction.

3.2 Ongoing Reassessment

The TUCP filed by Sonoma Water on May 26 includes a commitment to reduce Russian River diversions authorized under Sonoma Water's water rights by 20 percent from July 1 through October 31 compared to the same period in 2020. The TUCP extends the current minimum instream flow requirements through December 5, 2022. The TUCP was approved by the SWRCB. Extending the 20 percent diversion reduction beyond October 31—when nearly all water demand is associated with indoor use—would have caused many customers to fall below the amount of supply needed to meet basic health and safety needs.

Sonoma Water will continue to assess supply and demand conditions through the remainder of 2022 to assess whether there is a need to file another TUCP and/or continue demand reduction measures into 2023. 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

Although the results of the AWSDA do not indicate a shortage in the upcoming year (even if dry conditions persist), water storage levels in Lake Mendocino and Lake Sonoma are currently at historic lows. Therefore, Sonoma Water and its wholesale customers are taking proactive steps to reduce demand on the Russian River system and preserve surface water supplies for future use.

Planned response actions include ramping up groundwater production (at Sonoma Water's Todd Road Well and Sebastopol Road Well), encouraging customers to use local supplies, and expanding public outreach and conservation efforts.

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

Section 5

References

DWR. *Annual Water Supply and Demand Assessment Guidance*, April 2022.

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

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

Appendix A: AWSDA 2022 Reporting Tables



Table 1. Annual Assessment Information

Annual Assessment Information (Required)	
Year Covered By This Shortage Report	
Start: July 1,	2022
End: June 30,	2023
Supplier's Annual Assessment Planning Cycle	
Start Month:	1/1/2022
End Month:	12/31/2023
Data Reporting Interval Used:	MONTHLY
Volume Unit for Reported Supply and Demand: <i>(Must use the same unit throughout)</i>	AF
Water Supplier's Contact Information	
Water Supplier's Name:	Sonoma County Water Agency
Contact Name:	Paul Piazza
Contact Title:	Principal Programs Specialist
Street Address:	404 Aviation Blvd
ZIP Code:	95403
Phone Number:	(707) 547-1968
Email Address:	paul.piazza@scwa.ca.gov
Report Preparer's Contact Information <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@brwncaid.com
Supplier's Water Shortage Contingency Plan	
WSCP Title	Water Shortage Contingency Plan
WSCP Adoption Date	5/11/2021
Other Annual Assessment Related Activities (Optional)	
Activity	Timeline/ Outcomes / Links / Notes
Annual Assessment/ Shortage Report Title:	Water Shortage Assessment Report
Annual Assessment / Shortage Report Approval Date:	
Other Annual Assessment Related Activities:	
(Add rows as needed)	

															= From prior tables	
															= Auto calculated	
Table 2: Water Demands ¹																
Use Type			Start Year:		2022		Volumetric Unit Used ² :		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 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																
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.		6688	6015	5685	5236	4159	3459	3947	3744	4131	4203	5698	6473	59436	
															0	
															0	
															0	
															0	
															0	
															0	
															0	
															0	
Total by Month (Potable)			6688	6015	5685	5236	4159	3459	3947	3744	4131	4203	5698	6473	59436	
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:																
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.																

[illegible]

	= From prior tables
	= Auto calculated

Table 3: Water Supplies¹[illegible]

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

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

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

³When 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.

[illegible]

	= Auto calculated	
	= From prior tables	
	= For manual input	

Brown AND Caldwell

[illegible]