



COUNTY OF SONOMA

575 ADMINISTRATION
DRIVE, ROOM 102A
SANTA ROSA, CA 95403

SUMMARY REPORT

Agenda Date: 1/4/2022

To: Board of Directors, Sonoma County Water Agency
Department or Agency Name(s): Sonoma County Water Agency
Staff Name and Phone Number: Paul Piazza / 547-1968
Vote Requirement: Majority
Supervisorial District(s): Countywide

Title:

Updated Water Shortage Allocation Methodology and Model

Recommended Action:

- 1) Adopt the 2021 Water Shortage Allocation Methodology and Model to be used to inform each Sonoma Water customer of the water that would be available to it pursuant to Section 3.5 of the Restructured Agreement for Water Supply in the event of reasonably anticipated shortages.
- 2) Authorize Sonoma Water's General Manager to approve final refinements to the 2021 Water Shortage Allocation Methodology and Model related to Other Agency Customers, and other minor refinements as may be needed from time to time that do not apply to the allocation methodology for water to which the Water Contractors are entitled.
- 3) Authorize Sonoma Water's General Manager to negotiate with the Water Contractors and approve future updates to the 2021 Model's parameters and input data as designed and needed from time to time to keep the model current.

Executive Summary:

On direction of its Board, Sonoma Water's annual Water Shortage Allocation Methodology and Model, first developed in April 2006 to address "in the river" shortage conditions based on Section 3.5 of the Restructured Agreement for Water Supply, was updated in 2021 in collaboration with its Water Contractors to reflect current information regarding customer population, water demands, and local water supplies. This 2021 update is the completion of work started in 2010 and that included work to develop a monthly methodology capable of allocating water during the peak-demand months of summer.

Discussion:

HISTORY OF ITEM/BACKGROUND

Sonoma Water is a wholesale supplier of water to eight cities and water districts (Water Contractors) in Sonoma and Marin counties. The Water Contractors are comprised of: (1) The City of Santa Rosa; (2) The Town of Windsor; (3) The City of Rohnert Park; (4) The City of Cotati; (5) The City of Petaluma; (6) The City of Sonoma; (7) Valley of the Moon Water District; and (8) North Marin Water District. Sonoma Water also provides water to other customers through separate water supply agreements. These include (1) Marin Municipal Water District; (2) California-American Water Company; (3) Kenwood Village Water Company; (4) Lawndale Mutual Water Company and (5) Penngrove Water Company. Collectively, these cities and districts

deliver water directly to approximately 600,000 people.

On February 2, 2010, Sonoma Water's Board of Directors adopted Resolution No. 10-0085 directing Sonoma Water to take certain actions to cooperate with its Water Contractors regarding water supply planning activities. Among these actions was to: (1) update Sonoma Water's existing annual Water Shortage Allocation Methodology and Model; and (2) develop a monthly methodology to allocate water supply in the summer months when diversions from the Russian River may be constrained due to reduced flows or water availability.

Sonoma Water's existing Water Shortage Allocation Methodology and Model was developed in April of 2006. The model apportions an annual amount of water to the Water Contractors and other customers based on terms contained in Section 3.5 of the Restructured Agreement for Water Supply between Sonoma Water and its Water Contractors. By 2010 many of the model's assumptions such as population, available local water supplies and demand hardening were no longer current and needed to be updated, requiring Sonoma Water to work closely with the Water Contractors to obtain current data for revising model input parameters.

In addition to updating the existing annual shortage allocation model, the Water Contractors had also requested that Sonoma Water develop a monthly methodology to apportion water during peak demand periods when water demands by the Water Contractors exceeds the amount of water that Sonoma Water can divert from the Russian River. Such constraints occurred in 2007, 2008, 2009, 2013, 2014, and 2021 due to reduced summertime flows in the Russian River. Preparing the monthly methodology to apportion water during peak demand periods also required close coordination with the Water Contractors to obtain updated information regarding local water supply and individual capabilities to manage and/or reduce peak demands.

Following multiple years of development and negotiation between Sonoma Water and the Water Contractors, in March 2014, the Water Advisory Committee (WAC) approved a new Water Shortage Allocation Methodology and Model (2014 Model). The 2014 Model included two components, (1) for annual shortage and (2) for a peak or monthly shortage. One outstanding concern remained however, regarding how the 2014 Model handled commercial, industrial, and institutional (CII) demands. To provide time to resolve the CII question and obtain a later unanimous WAC recommendation for adoption by Sonoma Water's Board, the WAC approval of the 2014 Model had a termination date of July 1, 2016. From March 2014 through July 1, 2016, the Water Contractors worked to finalize the 2014 Model without success. Upon expiration of the WAC approval of the 2014 Model, the methodology consequently reverted to the adopted 2006 annual shortage allocation model in place.

Sonoma Water and the Water Contractors began meeting once again in early 2021 to build upon the successful work that led to the WAC's temporary approval of the 2014 Model with the goal to have an updated shortage allocation methodology unanimously approved by the WAC in Fall 2021 and subsequent consideration of adoption by Sonoma Water's Board of Directors. Using the 2014 Model as a starting point, an updated 2021 Water Shortage Allocation Methodology and Model (2021 Model) was developed in collaboration with the Contractors. Work was completed to incorporate changes that addressed previous CII concerns and to implement a refinement to the Reasonable Requirement to serve as the "cap" (i.e., max allocation during a shortage) in recognition that water allocations during a shortage should not exceed recent actual water use. With these changes, on September 13, 2021, the WAC unanimously approved the 2021 Model update and request for formal adoption by Sonoma Water's Board of Directors. The updated 2021 Water Shortage Allocation Methodology report is attached, along with the WAC presentation summarizing the

2021 Model and the recent updates from 2006 and 2014.

Final clean-up work is being completed on the 2021 Model to better address allocations for some Other Agency Customers. This work is in consideration of several Sonoma Water customers that are not retail water agencies with associated permanent residential populations and that necessitate separate handling in the model to address allocations during shortage under the stipulations in the Restructured Agreement for Water Supply. These other customers include Sonoma County Regional Parks, California Division of Forestry, Sonoma County Probation Department, Santa Rosa Junior College's Shone Farm, California State Parks Diablo Vista, Sonoma Developmental Center, and the Sonoma Water Airport-Larkfield Treatment Plant. The final model refinements being completed for these other customers do not affect the WAC approved allocation methodology for the Water Contactors and remaining Other Agency Customers and in total are noted to represent approximately one half of one percent of the total water allocations during times of shortage. The separate handling of allocations for these customers will be documented in the final report.

Lastly, it is expected that the parameters and data in the model will need updating from time to time in order to accurately reflect current customer populations, water demands, and local supply availability relied on to generate Sonoma Water supply allocations during times of shortage. As in this and previous updates to the shortage model, Sonoma Water will work closely with its customers to complete timely data updates and reach consensus on the application of any flexible parameters in the model. Staff recommends the Board of Directors adopt the updated 2021 Water Shortage Allocation Methodology and Model, authorize Sonoma Water's General Manager to approve final refinements to the 2021 Model, and authorize the General Manager to negotiate and approve future updates to the parameters and input data needed to keep the 2021 Model current.

Sonoma Water Strategic Plan Alignment:

Water Supply and Transmission System, Goal 1: Protect drinking water supply and promote water-use efficiency.

Prior Board Actions:

02/02/2010: Board Resolution No. 10-0085 directing the Water Agency to take certain actions to cooperate with its Water Contractors regarding water supply planning activities.

FISCAL SUMMARY

Expenditures	FY 21-22 Adopted	FY22-23 Projected	FY 23-24 Projected
Budgeted Expenses			
Additional Appropriation Requested			
Total Expenditures	0		
Funding Sources			
General Fund/WA GF			
State/Federal			
Fees/Other			
Use of Fund Balance			

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Contingencies			
Total Sources	0		

Narrative Explanation of Fiscal Impacts:

The adoption of the 2021 Water Shortage Allocation Methodology and Model has no direct fiscal impact. Consideration for lower water sales revenue during shortages is addressed in Sonoma Water’s rate setting policies.

Staffing Impacts:			
Position Title (Payroll Classification)	Monthly Salary Range (A-I Step)	Additions (Number)	Deletions (Number)

Narrative Explanation of Staffing Impacts (If Required):

N/A

Attachments:

- 1) 2021 Water Shortage Allocation Methodology Report
- 2) Presentation to WAC - 2021 Water Shortage Allocation Model Update

Related Items “On File” with the Clerk of the Board:

None