Posting Date: 02-17-2023

NOTICE OF THE REGULAR BI-MONTHLY MEETING OF THE BOARD OF DIRECTORS

MEETING DATE: 02-21-2023

TIME: 5:00 p.m. – Meeting Begins (Public)
5:01 p.m. or Thereafter - Closed Session (Only Board and Staff)
6:30 p.m. – Open Session (Public)

LOCATION: This meeting will be held virtually, pursuant to Assembly Bill (AB) 361.

To participate online, go to https://us06web.zoom.us/j/88134852296. You can also participate by phone by calling **1-669-444-9171 or 1-669-900-6833** and entering the **webinar ID#: 881 3485 2296**.

PARTICIPATION DURING MEETINGS**:** During the public comment periods, the public may comment by clicking the "raise hand" button on the bottom of the Zoom screen; if you are joining by phone and would like to comment, press *9 and we will call on you as appropriate.

EMAILED PUBLIC COMMENTS: You may submit your comments in advance of the meeting by emailing them to BoardComment@MarinWater.org. All emailed comments received by 3 p.m. on the day of the meeting will be provided to the Board of Directors prior to the meeting. All emails will be posted on our website. (**Please do not include personal information in your comment that you do not want published on our website such as phone numbers and home addresses.)**

AGENDA ITEMS	RECOMMENDATIONS
Call to Order and Roll Call*	
Adoption of Agenda	*Approve*
Public Comment – Only on Items on the Closed Session Comments will be limited to three (3) minutes per speaker, and time limits may be reduced by the board president to accommodate the number of speakers and ensure that the meeting is conducted in an efficient manner.	
Convene to Closed Session at after 5:01 p.m. (Only the Board of Directors and staff will participate)	

***MARIN WATER BOARD OF DIRECTORS ORDER OF ROLL CALL:** JED SMITH, RANJIV KHUSH, LARRY RUSSELL, MATT SAMSON, AND MONTY SCHMITT

AGENDA ITEMS	RECOMMENDATIONS
Closed Session Items	
1. **Conference with Legal Counsel – Existing Litigation** (California Government Code Section § 54956.9) *Chamberlin v. MMWD* Case No.: CIV 2102266	
2. **Conference with Legal Counsel – Anticipated Litigation** (Government Code §54956.9) **Number of Cases**: Unknown	
Convene to Open Session at or after 6:30 p.m.	
Closed Session Report Out	
Public Comment - Items Not on the Agenda Members of the public may comment on any items not listed on the agenda during this time. Comments will be limited to three (3) minutes per speaker, and time limits may be reduced by the board president to accommodate the number of speakers and ensure that the meeting is conducted in an efficient manner.	
Directors' and General Manager's Announcements *(6:40 p.m. – Time Approximate)*	
Consent Calendar *(6:45 p.m. – Time Approximate)* All matters listed on the consent calendar are considered to be routine and will be enacted by a single action of the Board, unless specific items are removed from the consent calendar by the Board during adoption of the agenda for separate discussion and action.	
3. Minutes of the Board of Directors' Special Meeting (Board Retreat) of February 2, 2023, Special Meeting (Closed Session) of February 6, 2023, and Regular Board Meeting of February 7, 2023	*Approve*
4. General Manager's Report January 2023	*Approve*
5. Purchase of Meters for Annual Meter Change Program	*Approve*
6. Request to Fill Engineering Technician Position in the Engineering Division	*Approve*

AGENDA ITEMS	RECOMMENDATIONS
7. Request to Fill Construction Inspector Position in the Engineering Division	*Approve*
8. Request to Fill Associate or Assistant Engineer Position in the Engineering Division	*Approve*
9. Request to Fill Customer Service Representative III Position in the Administrative Services Division	*Approve*
Regular Calendar *(6:50 p.m. – Time Approximate)*	
10. Resolution Adopting the 2019 San Francisco Bay Area Integrated Regional Water Management (IRWMP) Plan Update *(Approximate time 10 minutes)*	*Approve*
Public Hearing *(7:00 p.m. – Time Approximate)*	
11. Updated 2023 Water Shortage Contingency Plan and Implementation Ordinance No. 462 *(Approximate time 20 minutes)*	*Approve*
Regular Calendar *(7:20 p.m. – Time Approximate)*	
12. Rate Setting Process Update *(Approximate time 20 minutes)*	*Information*
13. Future Meeting Schedule and Agenda Items *(Approximate time 5 minutes)*	*Information*
Adjournment *(7:45 p.m. – Time Approximate)*	

ADA NOTICE AND HEARING IMPAIRED PROVISIONS:
In accordance with the Americans with Disabilities Act (ADA) and California Law, it is Marin Water's policy to offer its public programs, services, and meetings in a manner that is readily accessible to everyone, including those with disabilities. If you are an individual with a disability and require a copy of a public hearing notice, an agenda, and/or agenda packet in an appropriate alternative format, or if you require other accommodations, please contact Board Secretary Terrie Gillen at 415.945.1448, at least two days in advance of the meeting. Advance notification will enable Marin Water to make reasonable arrangements to ensure accessibility.

INFORMATION AGENDAS ARE AVAILABLE FOR REVIEW AT THE CIVIC CENTER LIBRARY, CORTE MADERA LIBRARY, FAIRFAX LIBRARY, MILL VALLEY LIBRARY, MARIN WATER OFFICE, AND ON THE MARIN WATER WEBSITE (MARINWATER.ORG)

FUTURE BOARD MEETINGS:

Dates	Meetings
Thursday, February 23, 2023 9:30 a.m. (Virtual)	• Finance & Administration Committee/ Board of Directors (Finance & Administration) Meeting
Tuesday, February 28, 2023 5:00 p.m. (Virtual)	• Special Meeting of the Board of Directors *(Strategic Water Supply Assessment)*
Tuesday, March 7, 2023 5:00 p.m. and 6:30 p.m. (In-Person)	• Regular Bi-Monthly Meeting of the Board of Directors - 5 p.m. - Open Session (Public) - 5:01 p.m. or Thereafter – Closed Session (Only Board and Staff) - 6:30 p.m. – Reconvene to Open Session (Public)

Board Secretary

Item Number: 03
Meeting Date: 02-21-2023
Meeting: Board of Directors

Approval Item

TITLE
Minutes of the Board of Directors' Special Meeting of February 2, 2023, Special Meeting of February 6, 2023, and Regular Bi-Monthly Meeting of February 7, 2023

RECOMMENDATION
Approve the adoption of the minutes

SUMMARY
The Board of Directors held their retreat on February 2, 2023. The following week, the Board had a Special Meeting on February 6th and regular board meeting on February 7th. The minutes of all three (3) meetings are attached.

DISCUSSION
None

FISCAL IMPACT
None

ATTACHMENT(S)
1. Minutes of the Board of Directors' Special Meeting of February 2, 2023
2. Minutes of the Board of Directors' Special Meeting of February 6, 2023
3. Minutes of the Board of Directors' Regular Bi-Monthly Meeting of February 7, 2023

DEPARTMENT OR DIVISION	DIVISION MANAGER	APPROVED
Communications & Public Affairs Department	Terrie Gillen Board Secretary	Ben Horenstein General Manager

Item Number: 03
Attachment: 01

MARIN MUNICIPAL WATER DISTRICT
BOARD OF DIRECTORS

SPECIAL MEETING – BOARD RETREAT MINUTES

Thursday, February 2, 2023

Marin Municipal Water District
Administration Building, Mt. Tam Conference Room
220 Nellen Avenue
Corte Madera, California 94925

Call to Order and Roll Call
President Monty Schmitt called the meeting to order at 9:00 a.m.

Communications & Public Affairs Manager Adriane Mertens did roll call.

> ***Directors Present:*** Ranjiv Khush, Larry Russell, Matt Samson, Jed Smith, and Monty Schmitt
>
> ***Directors Absent***: None

After roll call, President Schmitt welcomed everyone and mentioned that there would be a lot of material that would be presented to the board. However, there would be opportunity to bring back items of importance from this meeting to the board again and/or future committee meetings.

General Manager's Introduction
General Manager Ben Horenstein introduced Brent Ives, who was with BHI Management Consulting and who facilitated the retreat.

Mr. Horenstein provided 2022 District Highlights and shared ongoing O*rganizational Efficiencies,*a routine part of the District's continuous improvement efforts.

After the general manager's introduction, staff provided to the board 2023 priorities for various work groups in the District. At the end of each presentation, the board and staff discussed those priorities, and the public provided comments.

Watershed (Watershed Resources Manager Shaun Horne)
Priorities: *Biodiversity, Fire, and Fuels Integrated Plan*, *Lagunitas Creek Fisheries Enhancement*, *Azalea Hill Restoration Project*, and *Watershed Recreation Management Plan*

The board discussed budgeting the watershed's projects, integrating recreational planning with the Watershed Plan, and increasing public awareness.

There were three (3) public comments.

Human Resources (Human Resources Manager Vikkie Garay)
Priorities: *Enhancing the Recruitment Program and Onboarding*, *Establishing a New Performance Evaluation System, Creating a Diversity, Equity, and Inclusion Initiative*, and *Enhancing Employee Engagement*

The board showed support and interest in the 360-degree performance evaluation. Board members also asked questions about District compensation in comparison to other agencies and generally supported the concept of one more full time position in the Human Resources Department focused on staff training.

There were two (2) public comments.

Communications (Communications & Public Affairs Manager Adriane Mertens)
Priorities: *Website Improvements*, *Agenda Management System*, *Outreach Support for Key District Efforts*, and *Public Education/ Storytelling Collateral*

The board generally supported the communication initiatitves.
There were four (4) public comments.

Water Resources (Water Resources Division Manager Paul Sellier)
Priority: *Water Supply Roadmap Implementation*

The board and staff discussed the next steps towards adaptation of a roadmap coming out of the Strategic Water Supply Assessment.

There were four (4) public comments.

Following the Water Resources presentation, the board had lunch and received presentations from Grant Davis, Sonoma Water and Tony Williams, North Marin Water District.

After lunch, the board continued receiving presentations from staff.

Water Efficiency (Water Efficiency Manager Carrie Pollard)
Priorities: *Implementation of the Strategic Water Supply Assessment Conservation Program*, *Development of the Water Efficiency Master Plan*, and *System Water Loss Study*

Discussion ensued between the board and staff including reconciling conservation with loss of revenue.

There were three (3) public comments.

Finance/Administrative Services Division (Administrative Services Director Bret Uppendahl)
Priorities: *Water Rate Development and Implementation, Connection Fee Study, and Financial Policies*

The board and staff conversed about the cost of service analysis and proposition 218.

There were five (5) public comments.

Engineering (Engineering Division Manager Crystal Yezman)
Priorities: *Long Term Capital Planning*, *SAP Conversion-Enterprise Resource Planning*, *Help Desk Service Contract*, and *District Paving Program*

The board and staff discussed paving costs, including members of the board speaking with their elevated counterparts on this matter.

There were three (3) public comments.

Following the last presentation of the day, the general manager asked the board to provide staff with items they want staff to follow up on from the retreat or items that were not presented at the meeting, but would like to discuss.

- Director Smith sought more clarity on financial opportunities on each of the areas that were shown to the board and asked what was on the staff's wish list.
- President Schmitt asked if updates on the retreat topics could be brought to committees.
- Vice President Khush expressed interest in receinving more information from academia on water related issues impacting the District and would like to know more about the District's involvement with the Association of California Water Agencies (ACWA) and American Water Works Association (AWWA).

There was one (1) public comment.

Then, President Schmitt thanked the staff and the public who were in attendance.

ADJOURNMENT

The retreat ended at approximately 3:45 p.m.

_____

Board Secretary

Item Number: 03
Attachment: 02

MARIN MUNICIPAL WATER DISTRICT
SPECIAL MEETING OF THE BOARD OF DIRECTORS

CLOSE SESSION MINUTES

Monday, February 6, 2023

Via teleconference
(In accordance with Assembly Bill 361)

CALL TO ORDER AND ROLL CALL

President Monty Schmitt called the meeting to order at 3:30 p.m.

Directors Present: Ranjiv Khush, Matt Samson, Jed Smith, and Monty Schmitt

Directors Absent: Larry Russell

(Note: Director Russell did arrive after the directors convened to Closed Session.)

ADOPTION OF AGENDA

On motion made by Director Smith and seconded by Vice President Khush, the board adopted the agenda.

Ayes: Directors Khush, Samson, Smith, and Schmitt
Noes: None
Absent: Director Russell

There were no public comments on the adoption of the agenda.

PUBLIC COMMENT – ONLY ON ITEM ON THE CLOSED SESSION

There were no public comments.

CONVENE TO CLOSED SESSION

The directors convened to Closed Session at 3:32 p.m.

CLOSED SESSION ITEM

1. **Conference with Legal Counsel – Anticipated Litigation**
   (Significant Exposure to Litigation Pursuant to Paragraph (2) or (3) of Subdivision (d) of Section 54956.9)

   Unknown Number of Potential Cases

CONVENE TO OPEN SESSION

The board convened to Open Session at 4:41 p.m.

CLOSED SESSION REPORT OUT

President Schmitt reported that the board adjourned the Closed Session at 4:40 p.m. with no reportable action and no other items on the agenda.

ADJOURNMENT
Without any further comments from the board or the public, the special meeting adjourned at 4:41 p.m.

_____
Board Secretary

Item Number: 03
Attachment: 03

MARIN MUNICIPAL WATER DISTRICT
BOARD OF DIRECTORS

MEETING MINUTES

Tuesday, February 7, 2023

Via teleconference
(In accordance with Assembly Bill 361)

CALL TO ORDER AND ROLL CALL

President Monty Schmitt called the meeting to order at 5:00 p.m.

Directors Present: Ranjiv Khush, Larry Russell, Matt Samson, Jed Smith, and Monty Schmitt

Directors Absent: None

ADOPTION OF AGENDA

On motion made by Director Smith and seconded by Director Samson, the board adopted the agenda.

Ayes: Directors Samson, Smith, Khush, Russell, and Schmitt
Noes: None

There were no public comments.

PUBLIC COMMENT – ONLY ON ITEMS ON THE CLOSED SESSION

There were no public comments.

CONVENE TO CLOSED SESSION

The directors convened to Closed Session at 5:04 p.m.

CLOSED SESSION ITEMS

1. **Conference with Labor Negotiator**
   (Government Code §54957.6)

   ***Agency Designated Representative*:** Ben Horenstein, General Manager

Employee Organizations: Service Employees International Union, Local 1021; Unrepresented Employees

2. **Conference with Legal Counsel – Existing Litigation**
(California Government Code Section § 54956.9)

Coalition of Sensible Taxpayers vs. Marin Municipal Water District
Case Number: CIV 1903160

CONVENE TO OPEN SESSION

The board, except Director Russell, convened to Open Session at 6:32 p.m.

CLOSED SESSION REPORT OUT

President Schmitt reported that the board adjourned the Closed Session at 6:31 p.m. with no reportable action.

PUBLIC COMMENT – ITEMS NOT ON THE AGENDA

There were four (4) public comments.

Director Russell arrived.

DIRECTORS' AND GENERAL MANAGER'S ANNOUNCEMENTS & COMMITTEE REPORTS

- Director Smith reported that the Finance and Administration Committee Meeting was held on January 26 and he attended the Sonoma County Water Agency Water Advisory Committee (WAC). He mentioned that the agencies at WAC look forward to partnering with Marin Water.

- Vice President Khush mentioned that he and Director Russell had attended the North Bay Watershed Association (NBWA) meeting. He stated that NBWA's issues were similar to the District's and that their resiliency study was facilitated by Jacobs Engineering.

- Director Samson announced that he attended both the Lagunitas Creek Technical Advisory Committee's tour of a couple of the watershed creeks and the OneTam Strategic Plan meeting.

- President Schmitt reported the Directors held their annual board retreat and thanked the staff for putting together concise and informative presentations on the state of their departments.

- General Manager Ben Horenstein added that the video recording of the retreat was posted to the website.

CONSENT CALENDAR (ITEMS 3-8)

Item 3 Minutes of the Board of Directors' Regular Bi-Monthly Meeting of January 17, 2023, Special Meeting of January 24, 2023, Special Meeting of January 26, 2023, and Special Meeting of January 31, 2023

Item 4 Amendment No. 4 to District Lease Agreement No. 65, at 700 Donahue Street, Sausalito (APN: 052-140-27), with T-Mobile

Item 5 Amendment No. 2 to Miscellaneous Agreement 5970 with ReDesign Group for Information Technology Services

Item 6 Quintel Management Consulting Contract to Assignment to VistVu Solutions

Item 7 Request to Fill Environmental Compliance Specialist Position

Item 8 Request to Fill One Utility Crew Leader Position in the Operations Division

On motion made by Director Samson and seconded by Vice President Khush, the board approved the Consent Calendar.

Ayes: Directors Samson, Smith, Khush, Russell, and Schmitt
Noes: None

There were no public comments on the Consent Calendar items.

REGULAR CALENDAR (ITEMS 9-10)

Item 9 Rate Setting Process Update

General Manager Horenstein introduced this item speaking to the proud history of Marin Water and the work ahead, and acknolweding Matin Water customers as important partners at this pivotal time. Finance Director Brett Uppendahl then gave a detailed presentation, articulating why the District needed to increase its rates, addressing thefinancial challenges of fixed expenses vs variable revenues, budget trends, current rate structures, and proposed rate plan options, as well as explaining the ongoing rate setting process, including the upcoming public workshops and outreach. Discussion ensued.

There were six (6) public comments.

This was an informational item that would also be presented at upcoming customer rate setting

workshops scheduled in the next two-weeks.

No formal action was taken by the board.

Item 10 Future Meeting Schedule and Agenda Items

The board secretary reported on upcoming internal and external meetings.

There was no public comment.

This was an informational item. The board did not take any formal action.

ADJOURNMENT

There being no further business, the regular Board of Directors' meeting of February 7, 2023, adjourned at 8:34 p.m.

_____

Board Secretary

Item Number: 04
Meeting Date: 02-21-2023
Meeting: Board of Directors

Approval Item

TITLE
General Manager's Report January 2023

RECOMMENDATION
Approve Report

SUMMARY

A. HIGHLIGHTS:

- The daily average net production for the month of January, 2023 was 13.7 MGD compared to 13.6 MGD for the month of January, 2022. Typical usage for January is 17.3 MGD.
- The daily average flow from Sonoma County Water Agency for the month of January, 2023 was 3.1 MGD compared to 3.9 MGD for the month of January, 2022.
- Staff presented the Water Shortage Contingency Plan Update a the January 13 Operations Committee and are incorporating board feedback prior to bringing the item to the full board in February
- The Strategic Water Supply Assessment is nearing completion and the board heard a presentation on the results of the analysis Jacobs performed on the Portfolios, and the initial development of a roadmap.
- Staff removed and cleared debris from 10 large trees ranging from 25-80 feet tall that fell during the series of storms that were blocking access roads to district facility sites and endangering neighboring properties.
- During the storm events this month 42 pump stations lost PG&E power and 15 of them required generator assistance. M&E staff transported 10 generators into the field and strategically positioned them at pump stations where generator power was needed. The use of the generators allowed the pump stations to operate throughout the power outages, avoiding disruption to the water distribution system.
- The WQ lab ensured that the water supplied met or surpassed water quality regulations by collecting and analyzing over 1,987 analyses on lakes, treatment plants, and distribution system samples.
- Went live with Team logic IT Heldesk staff augmentation January 3, averaging 5 - 10 Helpdesk tickets a day
- Completed the migration of all iPhones and iPads to AT&T Firstnet, which provides connectivity during major emergencies.
- Marin Water hosted a Forestry Restoration Tour for Together Bay Area Partner Agencies to review and discuss implementation of the Biodiversity, Fires, and Fuels Integrated Plan on the Mt. Tamalpais Watershed and learn about how other land managers around

the bay area are approaching wildfire fuels reduction and forest restoration projects.

- District continues to work in coordination with Marin County Fire on the development of a prescribed burn plan for the Rock Springs Area of the watershed as part of the Biodiversity Fires, and Fuels Integrated Plan. Prescribed burning may be carried out in February if fuel and air quality conditions are favorable.
- Staff have been burning piles in the Sky Oaks vicinity to reduce fuels removed as part of the District ongoing forest restoration work. Pile burning is occurring 3-4 days of week as conditions allow with support from the California Conservation Corps.
- The District continued work on the Watershed Recreation Management Planning process to identify strategies for balancing the goals of various Mount Tamalpais Watershed visitors with protection of the watershed's unique biodiversity, habitat, and water resources. Staff hosted Community Workshop #5 to review the Watershed Census Survey results and concepts relating to recreation zoning which was attended by 168 community members attended.

DISCUSSION

B. SUMMARY:

AF = Acre Feet

Mg/L = milligrams per liter

MPN = most probable number

MPY = mils per year

MG = million gallons

NTU = nephelometric turbidity units

1. Water Production:

	FY 2022/23		FY 2021/22	
	(million gallons)	(acre-feet)	(million gallons)	(acre-feet)
Potable				
Total production this FY	4,144	12,717	3,865	11,862
Monthly production, January	424	1,302	422	1,295
Daily average, January	13.68	41.99	13.61	41.76
Recycled				
Total production this FY	143.02	438.91	119.75	367.50
Monthly production, January	6.17	18.94	4.95	15.19
Daily average, January	0.20	0.61	0.16	0.49

Raw Water				
Total production this FY	42.81	131.38	26.94	82.68
Monthly production, January	0.00	0.00	0.00	0.00
Daily average, January	0.00	0.00	0.00	0.00
Imported Water				
Total imported this FY	876	2,689	24,803	76,119
Monthly imported, January	95	292	1,032	3,167
Reservoir Storage				
Total storage, December	25,884	79,435	24,803	76,119
Storage change during January	4,584	14,068	1,032	3,167
Stream Releases				
Total releases this FY	1,642	5,038	1,190	3,652
Monthly releases, January	59	182	300	921

2. Precipitation:

	FY 2022/23 (in.)	FY 2021/22 (in.)
Alpine	37.03	40.79
Bon Tempe	36.07	38.54
Kent	33.49	39.07
Lagunitas *	45.19	43.16
Nicasio	30.21	24.62
Phoenix	41.43	44.84
Soulajule	30.41	26.56

* Average to date = 30.03 inches

3. Water Quality:

Laboratory:	FY 2022/23	FY 2021/22
Water Quality Complaints:		
Month of Record	4	8
Fiscal Year to Date	97	96
Water Quality Information Phone Calls:		
Month of Record	2	11
Fiscal Year to Date	54	72

The WQ lab ensured that the water supplied met or surpassed water quality regulations by collecting and analyzing 1,987 analyses on lakes, treatment plants and distribution system samples.

Mild steel corrosion rates averaged 3.24 (1.14 – 5.29) MPY. The AWWA has recommended an operating level of <5 MPY with a goal of <1 MPY.

Complaint Flushing: One flushing event was performed for this month on record related to customer complaints. At Hy # 05908 at 1601 Lucas Valley Rd. in San Rafael.

Tank Survey Program: 18 water storage tank sanitary surveys were performed during the month. 6.98 % planned survey program has been completed for calendar year 2023.

Disinfection Program: No new pipeline were disinfected during the month of January. Performed chlorination's on 9 water storage tanks to ensure compliance with bacteriological water quality regulations.

Tank Water Quality Monitoring Program: Performed 37 water quality-monitoring events on storage tanks for various water quality parameters this month to help ensure compliance with bacteriological water quality regulations.

Summary:

The lab performed 18 sanitary tank surveys, treated 9 tanks for low chlorine, and checked an additional 37 tanks for low chlorine residual in January 2023.

4. Water Treatment:

	San Geronimo		Bon Tempe		Ignacio	
Treatment Results	Average	Monthly Goal	Average	Monthly Goal	Average	Monthly Goal
Turbidity (NTU)	0.06	≤ 0.10	0.04	≤ 0.10	0.03	≤ 0.10
Chlorine residual (mg/L)	2.71	2.75 *	2.8	2.75 *	2.85	2.75 *
Color (units)	0.7	≤ 15	0.4	≤ 15	0.0	≤ 15
pH (units)	7.8	7.8*	7.8	7.8*	8.1	8.1**

* Set monthly by Water Quality Lab
** pH to Ignacio is controlled by SCWA

5. Capital Improvement:

a. San Geronimo Treatment Plant Permanent Emergency Generator Project (D19027)
Summary: This project involves the installation of emergency generators, electrical equipment, fuel storage tanks and site grading all within the community of Woodacre.

- Project Budget: $5,375,600
- Monthly Activities: The Contractors and District forces are working to complete automation of emergency generator equipment. Outstanding work includes installing necessary control wires, programing relays and PLCs, and system integration with the District's SCADA system. The completion of system automation and functional testing is estimated early March 2023.

b. Treehaven Pipeline Replacement Project (F21003): This project is a component of the District's Fire Flow Improvement Program, and will replace nearly 8,000 linear feet of undersized fire flow deficient pipe as old as 95-years with 8-inch and 6-inch welded steel pipe.

- Project Budget: $3,654,990
- Monthly Activities: The project is delayed and the completion date is estimated Summer 2023.

6. Other:

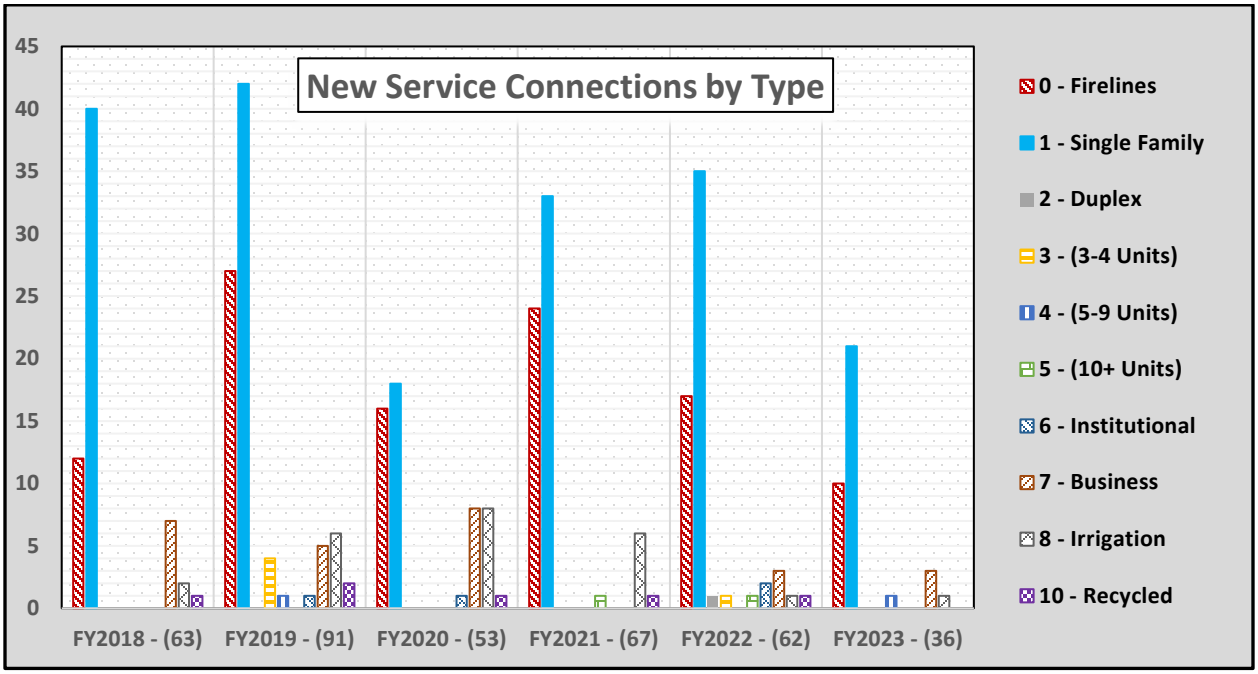
Pipeline Installation	FY2022/23	FY2021/22
Pipe installed during January (feet)	876	2,826
Total pipe installed this fiscal year (feet)	6,937	13,119
Total miles of pipeline within the District	908*	908*

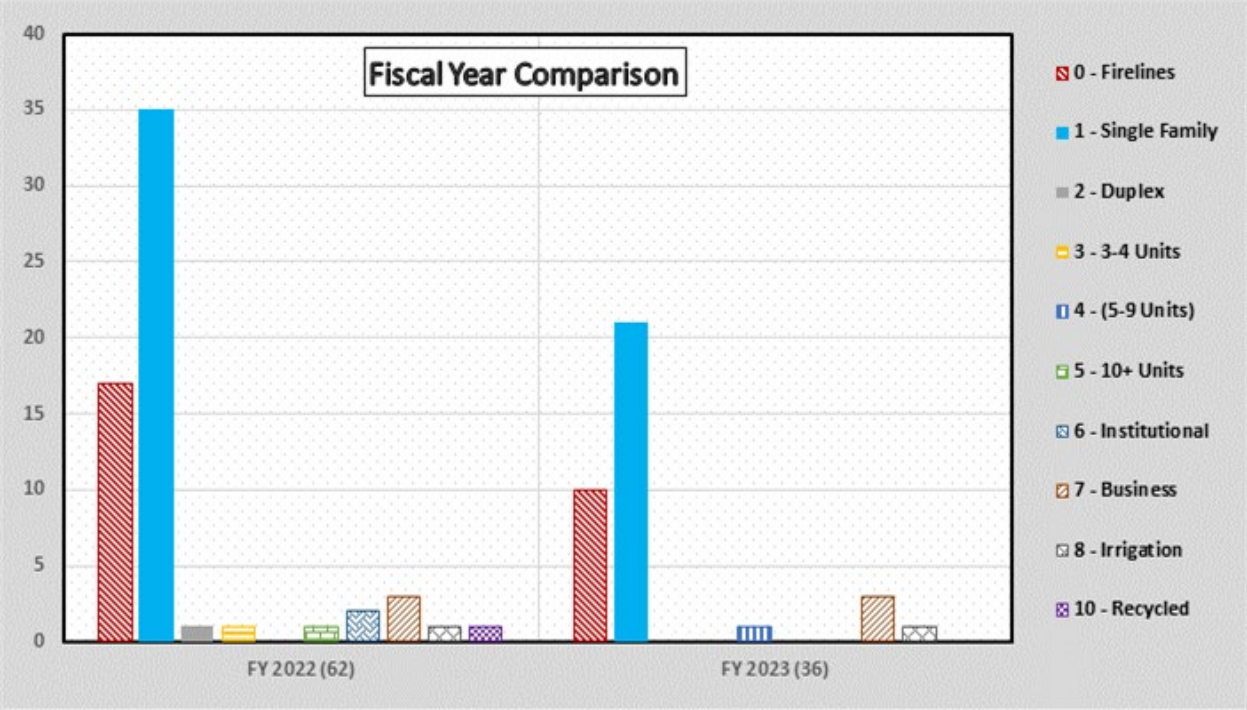
** Reflects adjustment for abandoned pipelines*

Pipe Locates (837 Responses)	FY2022/23	FY2021/22
Month of January (feet)	17,539	29,965
Total this fiscal year (feet)	160,440	288,417

Main Line Leaks Repaired:	FY2022/23	FY2021/22
Month of January	12	13

Total this fiscal year	116	111
Services:	FY2022/23	FY2021/22
Service upgrades during January	13	5
Total service upgrades this FY	102	80
Service connections installed during January	1	1
Total active services as of February 1, 2023	61,897	61,797




Fiscal Year Comparison
40
35
30
25
20
15
10
5
0
FY 2022 (62)
FY 2023 (36)
0 - Firelines
1 - Single Family
2 - Duplex
3 - 3-4 Units
4 - (5-9 Units)
5 - 10+ Units
6 - Institutional
7 - Business
8 - Irrigation
10 - Recycled

7. Demand Management:

	Jan-23	FY 22/23 TOTAL	FY 21/22 TOTAL	FY 20/21 TOTAL
WATER-EFFICIENCY PROGRAMS				
Water-Use Site Surveys				
Conservation Assistance Program (CAP) Consultations				
Residential properties resi 1-2 (single-family)	16	226	731	117
Residential properties resi 3-5 (multi-family units)	0	1	7	5
Non-residential properties resi 6-7 (commercial)	2	2	1	5
Dedicated irrigation accounts resi 8-10 (large landscape)	0	0	3	6
Marin Master Gardeners' Marin-Friendly Garden Walks				0
Residential garden walks	0	52	100	129
Public Outreach and Education, Customer Service				0
Public outreach events (number of people attending)	0	225	1602	0
Public education events (number of participants)	0	186	536	398
Customer calls/emails admin staff	279	2575	9508	5738
School Education				0
School assemblies				0
Number of activities	0	0	0	0
Number of students reached	0	0	0	0
Field trips				0
Number of activities	0	4	0	0
Number of students reached	0	78	0	0
Classroom presentations				0
Number of activities	1	6	0	1
Number of students reached	7	142	0	22
Other (e.g. booth events, school gardens)				0
Number of activities	0	0	0	0
Number of students reached	0	0	0	0
Incentives				0
Number of HECWs approved	9	54	190	163
Number of Rain Barrel/Cisterns approved	2	10	76	19
"Landscape Your Lawn" Turf Replacments approved	0	68	402	6
Number of Laundry-to-Landscape Systems approved	0	1	27	0
Hot water recirculating system rebates	4	23	122	0
Pool Cover rebates	3	17	298	0
HET rebates	3	10	92	0
Number of Smart Controllers rebates approved	1	24	69	85
Number of Smart Home Water Monitor "Flume Direct Distribution" redeemed	21	178	1568	1140
Number of Smart Controllers "Rachio Direct Distribution" approved	2	36	178	233
Advanced Metering Infrastructure (AMI)				0
AMI leak letters sent to customers (>200 GPD)	119	762	1050	1601
ORDINANCES				
Water Waste Prevention				
Water Waste Reports Received	7	285	4451	589
Water Waste Notifications Sent	1	67	0	0
Landscape Plan Review				
Plans submitted	8	38	77	94
Plans exempt	3	3	1	4
Plans completed	1	12	17	19
Plans in workflow (pass & fail)	9	76	123	154
Tier 4 Exemption				0
Inspections that resulted in a pass	0	0	1	1
Graywater Compliance Form				0
Applications Received *(as of Dec 2019)*	3	53	57	106
Systems installed	0	10	13	7

8. Watershed Protection:

Atmospheric Rivers Impact the Watershed

During January a serious of atmospheric river storms brought heavy rain and wind to the watershed. This filled the reservoirs, but brought down trees and caused landslides. The rangers responded to many storm related incidents and assisted other Marin Water work groups, State Parks and Marin County with storm related issues.

Fairfax Bolinas Road near Alpine Lake after a storm

When the sun came out so did the visitors

When it wasn't raining and the sun was out the watershed experienced dramatic levels of visitation. On several weekends with good weather the parking lots on the watershed were at capacity and twice some parking areas had to be closed. One weekend day a ranger patrol counted 460 people on Cataract Trail in an hour and a half

An increase of Search and Rescue Incidents

There were seven search and rescue incidents on the watershed during January. Two involved callouts for the Marin Search and Rescue (SAR) Team to assist district rangers. The first was on New Year's Day for a hiker stranded on the Helen Markt Trail after sunset. The hiker did not have a light and was not dressed for the nighttime conditions. The on-duty ranger determined the exact location of the hiker and directed SAR to them. The second incident occurred when an elderly person with elderly subject with dementia did not return home from a walk on the watershed near Fairfax. The subject was found safe during the hasty search phase of the incident and given a ride home.

Incidents and Events	536
Visitor Assists	156
Warnings	142
Assist Watershed Maintenance	73
Citations	58
Dam Check	26
Misc Law Enforcement Calls	19
Vandalism	11
Search and Rescue	7
Assist Other Agency	7
Fish and Game Contact	5
Complaint: Illegal Bike Use	4
Illegal Trail Work	4
Preventative Search and Rescue	3
Medical Aid	2
Assist Outside Law Enforcement	2
Ranger Callout	2
Assist Other MMWD Work Group	2
Closed Parking Due to Capacity Issues	2
Misc Call for Service	2
Landslide Alarm	2
Citizen Complaint: Off Leash Dogs	1
Suspicious Circumstance	1
Humane/Animal Call for Service	1
Citizen Complaint: Swimming	1
Illegal Fire	1
Citizen Complaint: ebike use	1
Citizen Complaint: F&G	1
Citizen Complaint: Smoking	1

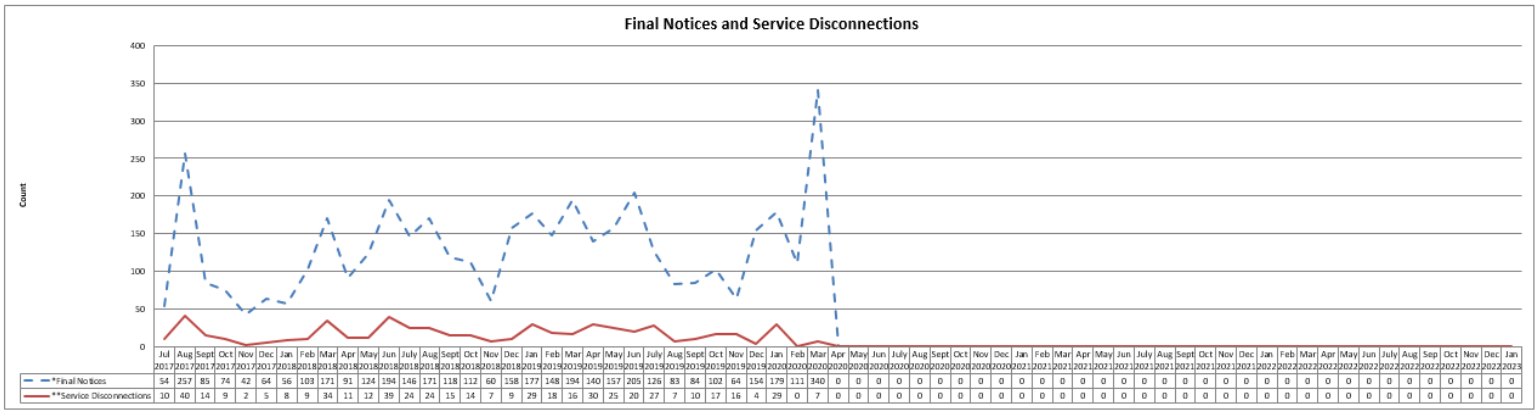
Citations	58
Non-Payment of Parking Fees	42
Obstruct Traffic/Parking within 6' of Center	8
No Parking	3
Parking in Front of Gate	1
Dog off Leash	1
Fish Over Limit	1
CVC Violation	1
Damage Natural Resources	1

MARIN WATER

9. Shutoff Notices and Disconnections:

Month	Jan 2023
Final Notices	0
Service Disconnections	0

* Includes 5 day, 10 day and final notices
**3/13/20 Suspended termination of water service for non-payment due to COVID- 19
*3/24/20 Suspended Late Fees and Final Notices



FISCAL IMPACT
None

ATTACHMENT(S)
None

DEPARTMENT OR DIVISION	DIVISION MANAGER	APPROVED
Office of the General Manager	_____	
	Ben Horenstein General Manager	**Ben Horenstein General Manager**

Item Number: 05
Meeting Date: 02-21-2023
Meeting: Board of Directors

Approval Item

TITLE
Purchase of Meters for Annual Meter Change Program

RECOMMENDATION
Approve the purchase of 5/8", 3/4" & 1" meters in the amount of $200,473

SUMMARY
Staff is requesting that the Board of Directors approve and authorize the purchase of 2,342 Sensus SRII meters in the amount of $200,473, comprised of 1,536 5/8" meters, 184 3/4" meters and 622 1" meters. Sensus, our current vendor, recently announced that the meter model that Marin Water currently uses will be discontinued and the replacement meter option will include a 78 percent price increase on average. Placing this order will secure the necessary inventory for 1-2 years and will result in a savings for the District of approximately $140,000.

DISCUSSION
The District maintains an annual Meter Change Program that has a target rate of 3,000 meter replacements per year. The expected lifespan of most meters is 20 years and the current budget for this program is $200,000 per year, which amounts to a unit cost of $66 per meter. Approximately 95% of Marin Water meters are 5/8", 3/4" and 1", most of which are Sensus positive displacement analog meters. Although the Sensus SRII meter is analog, it can be easily retrofitted to digital (AMI ready) by replacing the register. This process takes a few minutes and does not interrupt water service to the customer.

Quote Selection Process
There are only two options for collecting quotes on Sensus meters; direct from the Manufacturer (Sensus) or our designated regional representative (Aqua Metric):

1. Sensus - $200,473 (pre-tax)
2. Aqua Metric - $260,324 (pre-tax)

FISCAL IMPACT
Funds are available within the current budget for this purchase and placing this order will secure the necessary inventory for 1-2 years at the current.

ATTACHMENT(S)
None

Item Number: 05
Meeting Date: 02-21-2023

DEPARTMENT OR DIVISION	DIVISION MANAGER	APPROVED
Administration Services		
	Bret Uppendahl **Admin. Services Manager**	**Ben Horenstein** **General Manager**

Item Number: 06
Meeting Date: 02-21-2023
Meeting: Board of Directors

Approval Item

TITLE
Approval to Fill Engineering Technician Position in the Engineering Division

RECOMMENDATION
Authorize the General Manager to recruit and hire one permanent Engineering Technician position in the Engineering Division

SUMMARY
One Engineering Technician position has been vacated by the incumbent. Staff is requesting authorization for the General Manager to recruit and hire one permanent Engineering Technician and any other subsequent positions that may become vacant as a result of this recruitment.

DISCUSSION
The Engineering Technician in the Records group is critical to the timely and accurate recording and maintenance of digital records of the District's water system. Specifically, this position prepares digital record drawings for the District's Capital Improvement Program and reimbursable, privately sponsored projects. This Engineering Technician in Records also digitally updates leak points and maintenance and repair reports within the District's GIS (Geographical Information System). Furthermore, this position provides support for the Underground Service Alert (USA) pipe location service by performing field mark and locates. The USA pipe locating service ensures agencies and contractors are aware of the presence of underground District facilities so they can safely dig around them. The District is mandated by the State to respond to USA requests within 48 hours. District staff requests the Board to authorize the General Manager to recruit and hire one Engineering Technician position. Staff further requests the Board authorize the General Manager to recruit and fill any vacant position that may be subsequently created upon filling this Engineering Technician position.

FISCAL IMPACT
The total annual salary with benefits for the Engineering Technician ranges from a minimum of $113,060 to a maximum of $135,626. Filling the Engineering Technician position will not increase the total number of budgeted Full Time Equivalents (FTEs) within the Engineering Division.

ATTACHMENT(S)
None

Item Number: 06
Meeting Date: 02-21-2023

DEPARTMENT OR DIVISION	DIVISION MANAGER	APPROVED
Engineering	**Crystal Yezman** **Director of Engineering**	**Ben Horenstein** **General Manager**

Item Number: 07
Meeting Date: 02-21-2023
Meeting: Board of Directors

Approval Item

TITLE
Approval to Fill Construction Inspector Position in the Engineering Division

RECOMMENDATION
Authorize the General Manager to recruit and hire one Construction Inspector in the Engineering Division

SUMMARY
A Construction Inspector position within the District Engineering Division recently became vacant in December of 2022, upon retirement of the incumbent. Staff is requesting authorization for the General Manager to recruit and hire one permanent Construction Inspector and any other subsequent positions that may become vacant as a result of this recruitment.

DISCUSSION
The Engineering Division has three distinct departments utilized to deliver capital projects to replace critical water infrastructure – Planning, Design, and Construction Management. The Construction Management Department consists of 10 employees who manage and enforce all District capital construction projects – one manager, one inspection supervisor, 6 inspectors, and 2 engineering technicians. One Construction Inspector announced his retirement effective December 2022.

Construction Inspectors are responsible for performing daily construction monitoring and reporting for all District construction projects including Capital, Fire Flow, Reimbursable, and Subdivisions. Construction Inspectors enforce compliance with construction plans and specifications, as well as District, County, State, and Federal regulations and standards. Inspectors work closely with Distribution System Operators, Control Systems Technicians, Corrosion Control staff, Water Quality staff, and Backflow Specialists – all to ensure that installation, environmental, and water quality standards and regulations are met.

Construction Inspectors are also utilized to provide important District asset records for water facilities, perform constructability reviews for design projects, and perform inspection of potable water discharges near sensitive water bodies pursuant to the National Pollutant Discharge Elimination System requirements.

FISCAL IMPACT
The total annual salary with benefits for the Construction Inspector position ranges from a minimum of $122,423.40 to a maximum of $170,764.20. Salary and benefits for the Construction Inspector position is budgeted in the Engineering Division budget. Filling this

Construction Inspector position will not increase the total number of budgeted Full Time Equivalents (FTEs) within the Engineering Division.

ATTACHMENT(S)
None

DEPARTMENT OR DIVISION	DIVISION MANAGER	APPROVED
Engineering	**Crystal Yezman** **Director of Engineering**	**Ben Horenstein** **General Manager**

Item Number: 08
Meeting Date: 02-21-2023
Meeting: Board of Directors

Approval Item

TITLE
Approval to Fill Associate or Assistant Engineer Position in the Engineering Division

RECOMMENDATION
Authorize the General Manager to recruit and hire one Associate or Assistant Engineer in the Engineering Division

SUMMARY
An Associate Engineer position within the District's Engineering Division recently became vacant in September of 2022, upon separation of the current incumbent. Staff is requesting authorization for the General Manager to recruit and hire one permanent Associate or Assistant Engineer and any other subsequent positions that may become vacant as a result of this recruitment.

DISCUSSION
The Associate or Assistant Engineer conducts a variety of tasks in support of capital planning, dam safety and program management, water rights reporting, and development services support. These tasks include preparing planning reports for upcoming capital projects; preparing regulatory reports for the State Water Board; utilizing the hydraulic model to assist Development Services; managing the dams safety program through instrumentation reporting to the Division of Safety of Dams, emergency management plan preparation, and condition assessments; assisting in grant applications for large capital projects; support in long term capital planning and budgeting; and preparing agenda reports and making presentations to the Operations Committee and Board. District staff anticipate filling this position by July 2023.

FISCAL IMPACT
The total annual salary with benefits for the Associate Engineer position ranges from a minimum of $165,693.60 to a maximum of $200,134.80 and the total annual salary with benefits for the Assistant Engineer ranges from a minimum of $143,337.60 to a maximum of $173,599.20. Salary and benefits for the Associate or Assistant position is budgeted in the Engineering Division budget. Filling this Associate or Assistant Engineer position will not increase the total number of budgeted Full Time Equivalents (FTEs) within the Engineering Division.

ATTACHMENT(S)
None

Item Number: 08
Meeting Date: 02-21-2023

DEPARTMENT OR DIVISION	DIVISION MANAGER	APPROVED
Engineering	Crystal Yezman Director of Engineering	Ben Horenstein General Manager

Item Number: 09
Meeting Date: 02-21-2023
Meeting: Board of Directors

Approval Item

TITLE
Approval to Fill Customer Service Representative III Position

RECOMMENDATION
Authorize the General Manager to recruit and hire a Customer Service Representative III in the Administrative Services Division

SUMMARY
A Customer Service Representative III position in the Administrative Services Division became vacant upon retirement of the incumbent. Staff is requesting authorization for the General Manager to recruit and hire one permanent Customer Service Representative III and any other subsequent positions that may become vacant as a result of this recruitment.

DISCUSSION
The Customer Service Representative III performs a variety of difficult and complex direct customer contact and office support activities supporting the servicing and maintenance of customer accounts for water service and billing. Filling this position will allow the Customer Service Department to provide more timely responses to billing adjustment inquiries and to improve processing times for payment plans and customer discount program applications.

FISCAL IMPACT
Salary and benefits for this position is included in the Administrative Services Division budget for FY 2023. The total annual salary with benefits for the Customer Service Representative III position ranges from $96,017 to $115,943. Filling this position will not increase the total number of full time employees (FTEs) in the Administrative Services Division.

ATTACHMENT(S)
None

DEPARTMENT OR DIVISION	DIVISION MANAGER	APPROVED
Administrative Services	**Bret Uppendahl** **Finance Director**	**Ben Horenstein** **General Manager**

Item Number: 10
Meeting Date: 02-21-2023
Meeting: Board of Directors

Approval Item

TITLE
Resolution Adopting the 2019 Bay Area Integrated Regional Water Management Plan Update

RECOMMENDATION
Approve a resolution adopting the 2019 Bay Area Integrated Regional Water Management Plan Update

DISCUSSION
The Bay Area Integrated Regional Water Management (IRWM) plan is a nine-county effort to coordinate and improve water supply reliability, protect water quality, manage flood protection, maintain public health standards, and enhance the overall health of the San Francisco Bay, consistent with Water Code section 10530, the Integrated Regional Water Management Plan Act adopted in 2002. The District, which first adopted the Bay Area IRWM plan in November, 2006, and most recently in 2014, has participated in the plan since that time, and has received funding for a variety of projects ranging from customer water conservation rebates to culvert replacement. IRWM plans are living documents and must be updated to meet current California Water Code and Department of Water Resources standards, address statewide water management priorities, and address regional needs and conditions through proposed project actions.

Key updates included in the 2019 Bay Area IRWM Plan Update include 1) an improved project review process to better reflect regional goals, 2) updated groundwater quality information, and 3) expanded disadvantaged community information and outreach plans.

On December 8, 2022, District staff were notified that an application for $6.5M in funding for the Marin City/San Rafael Water Supply Resilience Project had been approved by the Bay Area Integrated Regional Water Management Coordinating Committee for inclusion in the regional Prop 1 Round 2 application to the Department of Water Resources. That recommendation, however, does require that the District formally adopt the 2019 IRWM Plan Update before the Department of Water Resources (DWR) will formally grant an award.

For this reason, staff recommends that the Board approve the proposed resolution adopting the 2019 Bay Area Integrated Regional Water Management Plan Update.

FISCAL IMPACT
Adoption of an IRWM Plan does not entail a commitment of resources to or implementation of any project, and there is no joint commitment or responsibility by IRWM Plan participants to implement projects. However, the District must adopt this Plan update in order to be eligible

for pending and future grant awards, including funding for the Marin City/San Rafael Water Supply Resilience Project.

ATTACHMENT(S)

1) 2019 Bay Area IRWM Plan Update
2) Proposed Resolution

DEPARTMENT OR DIVISION	DIVISION MANAGER	APPROVED
Watershed Resources Department	**Shaun Horne** **Watershed Resources Manager**	**Ben Horenstein** **General Manager**

MARIN MUNICIPAL WATER DISTRICT

RESOLUTION NO.

A RESOLUTION OF THE MARIN MUNICIPAL WATER DISTRICT BOARD OF DIRECTORS ADOPTING THE 2019 SAN FRANCISCO BAY AREA INTEGRATED REGIONAL WATER MANAGEMENT PLAN (IRWMP) UPDATE

WHEREAS, in support of the Marin Municipal Water District's (District's) mission to "to provide our customers with reliable, high-quality water at a reasonable price", the District participates in the San Francisco Bay Area Integrated Regional Water Management (IRWM) Program, which fosters collaboration with other agencies in the Bay Area to address regional water system and flood protection challenges while creating opportunities for grant funding; and

WHEREAS, state statute and guidelines require that IRWMPs be adopted and periodically updated by the governing boards of participating agencies before applying for IRWMP grant funding, with the District approving the last update in 2014; and

WHEREAS, the San Francisco Bay Region's IRWM Coordinating Committee prepared the 2019 Bay Area IRWMP Update to meet the new requirements from the Department of Water Resources (DWR) and the 2019 IRWP Update was approved by DWR on March 21, 2020; and

WHEREAS, adoption of the 2019 San Francisco Bay Area IRWMP Update by the District will maintain the District's eligibility for grant funding; and

WHEREAS, the 2019 Bay Area IRWMP Update is meant to be complementary to participating agencies' individual plans and programs and does not supersede nor deter such plans and programs.

NOW, THEREFORE, BE IT RESOLVED, that the Marin Municipal Water District's Board of Directors does hereby adopt the 2019 San Francisco Bay Area IRWMP Update.

PASSED AND ADOPTED this 21st day of February, 2023, by the following vote of the Board of Directors.

AYES:

NOES:

ABSENT:

_____

Monty Schmitt
President, Board of Directors

ATTEST:

_____

Terrie Gillen
Board Secretary

Item Number: 11
Meeting Date: 02-21-2023
Meeting: Board of Directors

Approval Item

TITLE
Public Hearing to Adopt the Updated 2023 Water Shortage Contingency Plan and Implementation Ordinance No. 462

RECOMMENDATION
Conduct a Public Hearing on the draft updated 2023 Water Shortage Contingency Plan and proposed Ordinance No. 462; approve a Resolution Adopting the updated 2023 Water Shortage Contingency Plan; and adopt proposed Ordinance No. 462 implementing the updated 2023 Water Shortage Contingency Plan

SUMMARY
The primary objective of the Water Shortage Contingency Plan (WSCP) is to ensure that the District has in place the necessary resources and management responses needed to protect health and human safety, minimize economic disruption, and preserve environmental and community assets during water supply shortages and interruptions. Based on water system performance during the most recent drought of 2020 and 2021, staff is proposing to update the WSCP and the associated District code codifying the District's reliance on the updated WSCP and associated triggers that define water shortage levels and associated actions to preserve the water supply during times of shortage.

DISCUSSION
The Water Shortage Contingency Plan contains several state mandated sections and was adopted by the Board in June 2021, in coordination with the adoption of the 2020 Urban Water Management Plan. On July 15, 2022 staff provided an overview of the current WSCP and discussed proposed refinement to the drought triggers. A subsequent discussion was held on September 6, 2021 and October 21, 2022 which provided further refinements on the proposed triggers. Most recently, on January 13, 2023, the Operations Committee/Board referred the updated WCSP to a regularly scheduled Board meeting for consideration. The proposed draft updated 2023 WSCP includes updated triggers, as previously presented, and updated shortage level response actions based on lessons learned from the recent drought response and additional refinements based on input provided at prior Committee presentations.

Drought Triggers

Drought triggers in the WSCP were adopted in June 2021 as part of the Urban Water Management Plan and are described in Table 1 below.

Table 1 - Existing WSCP Shortage Levels and Triggers

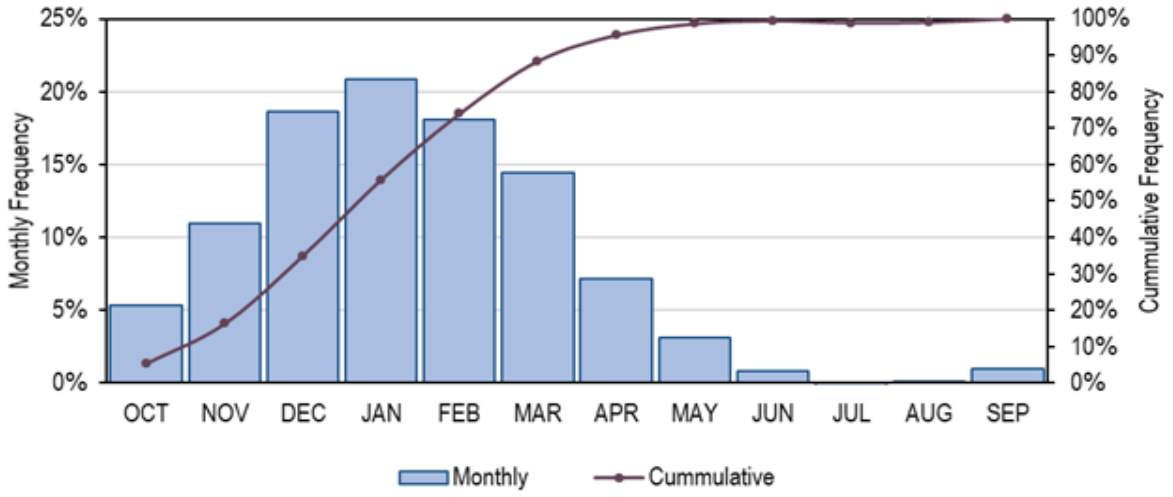
Shortage Level	Percent Shortage Range	Shortage Trigger
1 - Voluntary	Up to 10%	If rainfall is 30% below average for the water year[1] as of April 1st
2 - Voluntary	Up to 20%	Total reservoir storage is in the vicinity of 45,000 acre-feet on January 1st
3 - Mandatory	Up to 30%	Total reservoir storage is in the vicinity of 50,000 AF on February 1st
4 - Mandatory	Up to 40%	Total reservoir storage is in the vicinity of 55,000 AF on April 30th and/or storage level projections using average rainfall indicate December 1st storage in vicinity of 30,000 AF.
5 - Mandatory	Up to 50%	Total reservoir storage on December 1 is less than 30,000 AF.
6 - Mandatory	>50%	Continued drought and forecasted decreasing storage levels or catastrophic event beyond Stage 5, or total reservoir storage is projected to be in the vicinity of 30,000 AF on April 1st.

1. 30% below average rainfall is defined as less than 32 inches of rainfall at the Lagunitas rainfall gauge for the time period of October 1 thru March 31

Based upon further analysis and experience from the recent Water Shortage Emergency, staff determined that the current trigger dates are too close to one another to be effective from an implementation and messaging standpoint. As currently written, the identified level of conservation could change as often as each month, which is likely to make it difficult for customers to follow and for the District to communicate information on newly implemented actions. A clear and readily understandable set of triggers with sufficient time between stages would provide a better basis for communication and greater chance of successfully galvanizing District customers to take action when needed. In addition, the current triggers attempt to take into account dry winter conditions and in doing so are potentially overly conservative and run the risk of a premature call to action to save water that over time could diminish the effectiveness of response. For example, a 20% conservation goal in January could very likely be rendered unnecessary in February, given the potential for significant rainfall during this period. Staff therefore proposes updating the current triggers and shortage response actions in an updated WSCP.

The proposed triggers are clear and are based on the total local reservoir storage level, or projected storage level, as of April 1. In projecting local reservoir storage levels staff factors in the projected availability of supplemental water from Sonoma Water to ensure that all water resources are included in the District's water supply forecast. With respect to the timing of the triggers, as illustrated by the chart below, historically 88% of rainfall has been received by April 1, as such water storage conditions are essentially established and can be accurately forecasted

for the remainder of the year. The proposed triggers allow for flexibility in implementation if current conditions forecast storage levels in the vicinity of the proposed trigger.



Staff is proposing a new set of triggers related directly to local storage level and keyed on April 1 as described in Table 2 below. While the principal indicator of a Shortage Level may appear to rely only on local supplies, it should be noted that the purchase of supplemental water or augmented supply added to the system through the Strategic Water Supply Assessment or as part of drought response results in a slower decline in reservoir storage levels and may delay or prevent the need for implementation of subsequent shortage level triggers and associated actions. The use of local storage levels factors in all other water supplies currently available to the District.

Table 2 - Proposed Shortage Levels and Triggers

Shortage Level	**Percent Shortage Range**	**Shortage Trigger** **Total Local Reservoir Storage on April 1st at, or projected to be in the vicinity of:**
1 - Voluntary	Up to 10%	70,000 AF
2 - Voluntary	Up to 20%	65,000 AF
3 - Mandatory	Up to 30%	55,000 AF
4 - Mandatory	Up to 40%	45,000 AF
5 - Mandatory	Up to 50%	35,000 AF
6 - Mandatory	>50%	25,000 AF

In selecting the proposed reservoir storage trigger levels, staff has reviewed the average storage level on April 1 and the frequency with which the proposed storage level trigger has

been reached since the addition of Soulajule reservoir and the expansion of Kent reservoir in 1983. For example, as shown in the table below the reservoir storage level for the first trigger is 70,000 AF (or in the vicinity thereof) on April 1 which has occurred on 12 occasions since 1983 or approximately in 1 in every 3 of the years. The frequency of the trigger levels seems appropriate given that the early shortage levels are not activated too frequently nor are they never activated at all. Shortage level three, where there is a potential to call upon customers to achieve up to 30% mandatory conservation, has only been reached on 3 occasions (1990, 1991 and 2021) all of which were multiyear droughts. Similarly, shortage level 4 has only occurred in 2021 and is the lowest storage level on April 1 since 1983. The triggers activate the shortage levels at a reasonable frequency that allows the District to act early in potential drought.

Trigger level Frequency - April 1				
Shortage Level	**Percent Shortage Range**	**Trigger Level [AF]**	**# Occurrences**	**Percentage Occurrence**
1 - Voluntary	10%	70,000	12	31%
2 - Voluntary	20%	65,000	7	18%
3 - Mandatory	30%	55,000	3	8%
4 - Mandatory	40%	45,000	1	3%
5 - Mandatory	50%	35,000	0	0%
6 - Mandatory	>50%	25,000	0	0%

In addition, staff has reviewed how the proposed trigger levels would have affected the timing of response actions in the most recent drought of 2020-2021. It is highly likely that the District would have initiated the proposed Shortage Level 1 trigger (70,000 AF as of April 1) calling for 10% voluntary conservation as early as April 1, 2020 or 10 months earlier than occurred. Staff will provide a presentation to the Board on the proposed trigger levels looking at both timing and effectiveness of the proposed triggers. As the District's water supply portfolio is diversified, the WSCP can be updated and refined, additionally the WSCP is reviewed, updated and adopted every five years as part of the Urban Water Management Plan (UWMP). The next UWMP update will occur in 2025, per the 1983 Urban Water Management Planning Act legislation.

Water Shortage Response Actions: Prohibitions and District Actions

Each shortage level identifies specific prohibitions on end users and District Actions within the WSCP, which may include District Operational Changes, Communications and Outreach Actions,

and implementation of Drought Surcharges. Pursuant to proposed Ordinance No. 462, which would implement the WSCP, the Board would activate, by resolution, each shortage stage and an associated conservation target within the identified range, which could be increased within the stage, as needed. With the Board adoption of each shortage stage, staff would implement the associated actions identified in the WSCP. The proposed ordinance also addresses the variance and enforcement process for the implementation of water use rules aimed to achieve the targeted water savings. Staff would return to the Board periodically during a water shortage to update the Board and to make recommendations on further action, either to increase or decrease the water shortage levels, depending on current conditions.

End User Prohibitions

The end user prohibitions activated at each level are designed to conserve water through restricting specific actions which align with the conservation target. The conservation target is a District-wide goal and will not be assigned to each specific individual water customer. The prohibitions escalate at each water shortage stage based on the anticipated reduction needed. To assist customers during a water shortage, numeric targets may be established to guide customers in meeting the District-wide goal. These numeric targets would take into consideration current legislative water use standards and current community water use trends. The District may grant variances for use of water otherwise prohibited under the mandatory water use prohibitions if it is found and determined that a variance is warranted under the parameters set forth in proposed Ordinance No. 462.

District Actions

In addition to implementing and enforcing prohibitions on end users, the District has identified a suite of actions and operational changes it will enact at the various stages of water shortage. These actions are meant to reduce water demands on the distribution system itself, facilitate implementation of the identified water use prohibitions, provide educational resources to customers, and define the timing to increase the amount of supplemental water from Sonoma or to utilize local water supplies that are not used in normal year conditions. Additionally, Drought Surcharges are addressed in the WSCP and will be developed as part of the 2023 rate setting process so that this tool will be available to the District during periods of water shortage. The specific actions are described in Attachment 2 of the updated WSCP, Water Shortage Response Actions.

PROCESS

While the highly variable nature of precipitation in the District's watershed prevents accurate assessment of water supply conditions until April 1, the routine water supply updates will contain storage level projections for a range of possible precipitation and the Board may

choose to act at any time other than April 1 should storage levels be projected to be in the vicinity of a shortage level trigger.

FISCAL IMPACT

Since the District bills its customers, in part, per unit volume of water consumed, the District would experience a reduction in revenue upon implementation of water conservation measures pursuant to the WSCP. The District may also experience expense increases related to increased public outreach, water waste patrols, emergency water transfers, and generators and fuel for internal reservoir water transfers. To compensate for the expected revenue reduction caused by periods of water shortage, the District may utilize reserves to the extent possible and will, with the 2023 rate setting process, consider drought surcharge rates, which when in place, will help to address increased expenses and revenue shortfalls due to drought.

ATTACHMENT(S)

1. 2023 Water Shortage Contingency Plan
2. Proposed Resolution for adoption
3. Proposed Ordinance No. 462
4. Water Waste Prohibitions in Effect at All Times

DEPARTMENT OR DIVISION	DIVISION MANAGER	APPROVED
Water Resources	**Paul Sellier,** **Water Resources Director**	**Ben Horenstein** **General Manager**

Item Number: 11
Attachment: 01

Water Shortage Contingency Plan

2023 Update
Marin Municipal Water District

February 2023

TABLE OF CONTENTS

TABLES

ATTACHMENTS

1 INTRODUCTION

Marin Municipal Water District's (MMWD's or District's) Water Shortage Contingency Plan (WSCP) has been developed to serve as a flexible framework of planned response measures to mitigate future water supply shortages. This WSCP builds upon and supersedes the WSCP that was presented in the 2020 Urban Water Management Plan (UWMP). The WSCP includes the stages of response to a water shortage caused by drought or by supply interruptions caused by infrastructure failure, regulatory mandate, or catastrophic human-caused or natural events. The primary objective of the WSCP is to ensure that the District has in place the necessary resources and management responses needed to protect health and human safety, minimize economic disruption, and preserve environmental and community assets during water supply shortages and interruptions. The WSCP also includes procedures to conduct an annual assessment of water supply and demand in order to determine whether water shortage conditions are likely to exist in the forthcoming year, and to proactively begin the process of implementing WSCP stages of action, as appropriate.
This WSCP has been prepared in accordance with California Water Code (CWC) § 10640 and CWC § 10632 of the UWMP Act. The information presented in the respective WSCP sections and the associated text and tables are collectively intended to fulfill the requirements of that sub-section of the UWMP Act.

2 WATER SUPPLY RELIABILITY ANALYSIS

Assessment of water supply reliability is dependent upon a number of factors, such as: the sources of water, regulatory and legal constraints, hydrological and environmental conditions, projected climate change impacts, and expected growth, among others. Based on historical data, water supply modeling, projections of future water uses, imported water, and recycled water availability, an assessment was conducted for determining the reliability of future water supply. Based on the service reliability analysis completed as part of the 2020 UWMP, the District is expected to have adequate water supplies during normal years, single dry years, and multiple dry years to meet projected demands through 2045.

A Drought Risk Assessment was also conducted during the 2020 UWMP water supply reliability assessment, which evaluates the effects on available water supply sources of an assumed five-year drought commencing the year after the assessment is completed (i.e., from 2021 through 2025). Based on the Drought Risk Assessment, the District is expected to have sufficient water supply from 2021 to 2025 in this multi-year drought scenario, although, as described in this WSCP, there are a number of actions that the District will implement to reduce demands and further ensure supply reliability at various levels of water shortage.

However, contrary to the foregoing assessments of water supply, the District recently experienced two very dry years (2020 and 2021) that resulted in historically low reservoir storage levels to the point the where District was projected to runout of water in less than a year. Reservoir levels were replenished by a 100 year rain event in October 2021 and an atmospheric river in December 2021. Since that time the District has revised the analysis to include more severe drought conditions and concluded that additional water supply is needed to assure adequate water supply during extreme drought conditions.

3 PRIOR DROUGHT ACTIONS

The District has historically developed different strategies for reducing water demand during water shortages. The District's actions in response to the drought that occurred in California between 2014 and 2017 and the recent severe drought of 2021 are discussed below.

On 1 April 2015, Governor Brown issued the fourth in a series of Executive Orders regarding actions necessary to address California's severe drought conditions. Executive Order B-29-15 directed the State Water Resources Control Board (SWRCB) to impose the first ever mandatory restrictions on urban water suppliers to achieve a statewide 25% reduction in potable urban water usage through February 2016. The Executive Order also required commercial, industrial, and institutional (CII) users to implement water efficiency measures, prohibited irrigation with potable water of ornamental turf in public street medians, and prohibited irrigation with potable water outside newly constructed homes and buildings that is not delivered by drip or microspray systems, along with numerous other directives.

On 5 May 2015, the SWRCB adopted Resolution 2015-0032 that mandated minimum actions by water suppliers and their customers to conserve water supplies into 2016 and assigned a mandatory water conservation savings goal to each water supplier based on a measurement of their residential water use in gallons per capita per day (R-GPCD). The Office of Administrative Law approved the regulations and modified the CWC on 18 May 2015. On 2 February 2016, the SWRCB voted to extend the emergency regulations until October 2016 with some modifications. On 9 May 2016, the Governor issued Executive Order B-37-16, which directed the SWRCB to extend the emergency regulations through the end of January 2017 as well as make certain water use restrictions permanent. On 18 May 2016, the SWRCB adopted Resolution 2016-0029 that adjusted the water conservation savings goal and replaced the February 2016 emergency regulation. The SWRCB may take separate action to make some of the requirements of the regulations permanent in response to the Executive Order.

The mandatory conservation standards included in CWC § 865(c) ranged from 8% for suppliers with an R-GPCD below 65 R-GPCD, up to 36% for suppliers with an R-GPCD of greater than 215 GPCD. As with previous emergency drought regulations adopted by the SWRCB in 2014, the new water conservation regulation was primarily intended to reduce outdoor urban water use. Based on their R-GPCD, the District was required to reduce water use by 20% relative to its 2013 water use.

Through enactment of its WSCP, the District surpassed these reduction targets. During the June 2015 through May 2016 compliance period, the District surpassed its water use reduction target with a cumulative savings of 21% relative to its 2013 use. In June 2016, the District adopted its 2015 UWMP and associated WSCP update. In April 2017, Governor Brown ended the drought State of Emergency.

More recently in April of 2021, the District declared a water shortage emergency pursuant to California Water Code sections 350 and 71640, and the County of Marin declared a drought emergency in May 2021. Also in May 2021 Governor Newsom declared a drought emergency in certain areas of the state, and later that year extended the drought emergency to the entire state of California. The state is currently seeking 15% reductions in water use across the state.

4 ANNUAL WATER SUPPLY AND DEMAND ASSESSMENT PROCEDURES

Each year the District will conduct an Annual Water Supply and Demand Assessment (AWSDA) to identify whether there is likely to be a water shortage condition in the following year. Because a substantial portion of the District's potable water supply is from SCWA, the evaluation of SCWA supplies for a particular year will be based on information provided by SCWA.
For purposes of this assessment, a water shortage condition is defined as an anticipated shortfall of 20%, corresponding to Water Shortage Level 2. Each element of the AWSDA is described below, along with the key data inputs and methodologies for determining these elements, and expected timing of the decision process.

1. Evaluation Criteria

   The evaluation criteria that will be used to identify whether the District is likely to experience a water shortage in the coming year include:

   - **SCWA Available Supply –** SCWA will develop and present the draft annual assessment to the Technical Advisory Committee (TAC) at the April meeting. The final annual assessment will be presented in the June TAC meeting. The District is a member of the TAC and the Water Advisory Committee (WAC) that represents the major cities and water districts that receive water delivered by the Sonoma Water aqueduct system. The District will conduct the Annual Assessment regarding the SCWA available supply as part of a coordinated effort led by SCWA.

     Further details about the evaluation criteria and procedure used by SCWA in conducting an Annual Assessment could be found in **Attachment 1** of this WSCP. As discussed in **Attachment 1**, evaluation criteria used by SCWA include:

     - Unconstrained customer demand for each of SCWA's wholesale customers, considering weather, growth, and other influencing factors;
     - Russian River operations, including current reservoir releases from Lake Sonoma and Mendocino and anticipated releases to meet in-stream flow requirements and water demand;
     - Hydrology and watershed conditions, including Lake Sonoma and Lake Mendocino cumulative inflows and storage levels, soil moisture, and snowpack; and
     - Potter Valley Project inflows, including Lake Pillsbury storage levels and observed and projected project transfers.

   - **Local Surface Water Available Supply -** The District keeps real time data on all local reservoir water levels with periodic evaluations of reservoir capacity through bathymetric studies. The last bathymetric study was completed in April 2016.

- **Rainfall Data -** Rainfall data is maintained by the District through calibrated rain gauges located on District's watershed lands. There are two principal rain gauge locations: one located at Lake Lagunitas for which the District has 142 years of rainfall data, and the other located at the Kent Lake stream release that is used for determination of dry or normal year conditions for stream releases to Lagunitas Creek. The gauges are manually read by District staff. Unofficially, the District currently has the ability to record these rain gauge information via an installed SCADA system. After a couple years of comparing the manual reads to the SCADA data, if the two results are close enough then the District will solely collect the rain data via SCADA.

- **Reservoir Storage -** The District's primary water supply is surface water, fed from local rainfall, into the seven local reservoirs: Lagunitas, Phoenix, Bon Tempe, Alpine, Kent, Nicasio and Soulajule. In 2022, the total reservoir storage operated by the District is 25.9 billion gallons (79,566 AF). From these reservoirs, the water is conveyed to either the Bon Tempe Treatment Plant (BTTP) near Ross or the San Geronimo Treatment Plant (SGTP) in Woodacre.

- **Local Regulatory Conditions -** The District and North Marin Water District entered into the 2022 Amended and Restated Interconnection Agreement in January 2022. The purpose of the agreement is to provide the basis for and mechanism whereby Marin Municipal and North Marin can each, as a first priority, continue to meet the needs of their respective customers, and simultaneously, to the extent feasible, utilize their respective water systems and surplus system capacity in a coordinated manner for the benefit of the customers of both Districts. Section 3 C of the agreement governs the release by Marin Municipal for the benefit of North Marin as follows: "*On North Marin's request, when flow in Lagunitas Creek is determined by North Marin to be low or when the dry year condition described in State Water Resources Control Board Order 95-17 occurs, Marin Municipal shall release to Nicasio Creek or Lagunitas Creek for North Marin's benefit up to 250 acre-feet per year. Said water shall be used by North Marin within its Inverness Point Reyes Annexation Territory*." Since the agreement was signed North Marin has not requested release volumes of any significance.

- **State Regulatory Conditions -** Evaluation of any state-mandated drought or water use restrictions known during preparation of the AWSDA. Water Rights Order 95-17 defines dry year conditions which impact the regulated volume of stream releases from Kent Lake.

These criteria will be assessed by District staff with detailed knowledge of District operations. The data used to support these assessments may include, but are not limited to, SCWA's Annual Water Supply and Demand Assessment, reservoir storage levels and system demand.

2. Water Supply

On the basis of the evaluation criteria above and available supporting information, the District will quantify the projected available supply over the forthcoming year. This quantification will likely be a range, and subject to revision as new data are available and as conditions evolve.

3. Unconstrained Customer Demand

   Unconstrained customer demands (i.e., the expected water use in the absence of shortage-caused reductions in water use) will be evaluated and estimated for the forthcoming year based on:

   - A comparison of monthly customer demands relative to prior years (e.g., last 3 years),
   - Evaluation of current and anticipated weather conditions,
   - New demands anticipated during the coming year (e.g., new accounts coming online), and
   - Any other potentially pertinent factors identified by the District (e.g., pandemic-related stay-at-home orders).

4. Planned Water Use for Current Year Considering Dry Subsequent Year

   The District will compare the estimated unconstrained demands to the anticipated supplies for the current year, assuming that the following year will be dry (i.e., a 20% supply shortfall), using the Evaluation Criteria identified above.

5. Infrastructure Considerations

   The District will evaluate how infrastructure capabilities and constraints may affect its ability to deliver supplies to meet expected customer water demands in the coming year. The constraints and capabilities are expected to include, among other things:

   - Anticipated capital projects and upgrades, and

     Anticipated maintenance and repairs.

6. Team Members

   The District's Water Resources Director will lead a team to conduct the assessment, the Team will include:

   - District's Water Resources Director,
   - District's Operations Director,
   - District's Conservation Manager,
   - District's Engineering Planning Department,
   - District's Public Outreach Department,

7. Timeline

Once per month, at a regularly scheduled Board meeting, the Water Resources Director provides the District Board of Directors a briefing on water supply. The Monthly Water Supply Update typically includes at a minimum rainfall, reservoir storage levels and a storage level forecast to the end of the water year. The District's water storage levels, demand and hydrologic conditions are continuously monitored throughout the year. The District will utilize the procedures outlined in Table 4-1 to complete the AWSDA. Consistent with California Water Code (CWC) § 10632.1, the District will perform and submit an AWSDA to DWR by July 1st of each year beginning in 2022.

Table 4-1 Annual Supply-Demand Assessment Procedures Decision-Making Timeline

Decision-Making Process	Responsible Parties	Start Date	End Date
Track reservoir storage levels to determine if a shortage is projected	Water Resources Department	1 Jan	1 April
Determine water supplies by source for the current year	Water Resources Department	1 April	30 April
Obtain Draft Assessment from SCWA	SCWA	April	April
Provide Comments on SCWA Draft Assessment	MMWD	April	April
Calculate the water supply reliability using spreadsheet, computer model, or other method	Water Resources Department	1 April	--
Determine shortages and response actions	Water Resources Department	30 April	--
Prepare and present preliminary report to District Board	Water Resources Department	30 April	--
Obtain Final Annual Assessment from SCWA	SCWA	May/June	May/June
Update water supply reliability and on SCWA Final Assessment	Water Resources Department	May/June	30 June
Send final annual water shortage assessment report to the State	Water Resources Department	1 June	No later than July 1st of each year beginning in 2022

5 WATER SHORTAGE LEVELS

This WSCP includes six triggers, as required by the State that provide the District more flexibility in addressing dry periods earlier in the water year. The triggers allow the District to successfully manage supplies through severe drought and are designed to reduce the likelihood of a water shortage that will negatively affect customers. Table 5-1 shows the six stages of water shortage currently used by the District. Each stage of the WSCP will be enacted and retracted by resolution of the District Board of Directors based on identified triggers and staff recommendation, or upon the determination that SCWA or another governing authority (e.g., the SWRCB) has required a voluntary or mandatory reduction in water use due to a water supply shortage or emergency. Each stage of action is described in further detail in Sections 6.1 through 6.8 below.

Table 5-1 Water Shortage Contingency Plan Levels (DWR Table 8-1)

Shortage Level	Percent Shortage Range	Shortage Response Actions
0	0%	• Includes water waste prohibitions effective at all times.
1	Up to 10%	• Total reservoir storage is at or is projected to be, or is, in the vicinity of 70,000 acre-feet on April 1st. • Includes implementation of mandatory restrictions on end uses (see **Table 6-1**) as well as agency actions (see **Table 6-2**).
2	Up to 20%	• Total reservoir storage is at or is projected to be, or is, in the vicinity of 65,000 acre-feet on April 1st. • Includes implementation of mandatory restrictions on end uses (see **Table 6-1**) as well as agency actions (see **Table 6-2**).
3	Up to 30%	• Total reservoir storage is at or is projected to be, or is, in the vicinity of 55,000 acre-feet on April 1st. • Includes implementation of mandatory restrictions on end uses (see **Table 6-1**) as well as agency actions (see **Table 6-2**).
4	Up to 40%	• Total reservoir storage is at or is projected to be, or is, in the vicinity of 45,000 acre-feet on April 1st. • Includes implementation of mandatory restrictions on end uses (see **Table 6-1**) as well as agency actions (see **Table 6-2**).
5	Up to 50%	• Total reservoir storage is at or is projected to be, or is, in the vicinity of 35,000 acre-feet on April 1st. • Includes implementation of mandatory restrictions on end uses (see **Table 6-1**) as well as agency actions (see **Table 6-2**).
6	>50%	• Total reservoir storage is at or is projected to be, or is, in the vicinity of 25,000 acre-feet on April 1st. • Includes implementation of mandatory restrictions on end uses (see **Table 6-1**) as well as agency actions (see **Table 6-2**).

6 SHORTAGE RESPONSE ACTIONS

This section describes the response actions the District will take to deal with the shortages associated with each of the six stages enumerated in Section 5. The Prohibitions on End Users, District Actions and Supply Augmentation are collated in Attachment 3 for ease of implementation.

6.1 Prohibitions on End Users

The District has a number of restrictions and prohibitions that it implements during periods of rationing (i.e., water shortage stages). Additionally, the District implements on-going prohibitions to reduce baseline water waste (Attachment 4). **Table 6-1** below identifies these prohibitions, the water shortage stage(s) at which they are implemented, and whether a penalty, charge, or other enforcement mechanism is applied for violations of these prohibitions. The water shortage stages of action are discussed further in Section 5 and the penalties, charges, and enforcement are discussed in Section 6.4. These prohibitions and enforcement actions have been adopted and are codified in the District's Code.

Table 6-1 Demand Reduction Actions (DWR Table 8-2)

Shortage Level	Demand Reduction Actions	How much is this going to reduce the shortage gap? (a)	Additional Explanation or Reference (optional)	Penalty, Charge, or Other Enforcement?
Landscape Irrigation				
0, 1, 2, 3, 4, 5, 6	Other landscape restriction or prohibition	5%	The application of potable water to outdoor landscapes during and within 48 hours after measurable rainfall is prohibited.	Y
0, 1, 2, 3, 4, 5, 6	Restrict or prohibit runoff from landscape irrigation	5%	Irrigation shall not be conducted in a manner or to an extent that allows water to run off or overspray the areas being watered. Every customer is required to have his or her water distribution lines and facilities under control at all times to avoid water waste.	Y
0, 1, 2, 3, 4, 5, 6	Limit landscape irrigation to specific times	5%	Any landscape irrigation between the hours of 9:00 a.m. and 7:00 p.m. is prohibited. Necessary testing and repair of irrigation systems for the purpose of eliminating water waste is permitted during the hours of 9:00 a.m. and 7:00 p.m. Customers shall maintain appropriate documentation of any necessary testing and repairs for these purposes. For example, this documentation	Y

			may include, but not be limited to, any applicable reports, invoices, photos, videos, and/or receipts for materials and labor related to the testing and repairs.	
0, 1, 2, 3, 4, 5, 6	Limit landscape irrigation to specific days	5%	Increase restrictions on irrigation. For example, operating outdoor irrigation systems using potable water for the purpose of irrigating with overhead spray more than two days, as assigned by the District, within any calendar week may be prohibited. For the purposes of this section, "calendar week" shall mean a period running from Monday-Sunday.	Y
0, 1, 2, 3, 4, 5, 6	Other landscape restriction or prohibition	5%	Irrigating ornamental turf on public street medians is prohibited.	Y
3	Prohibit certain types of landscape irrigation	30%	Golf course irrigation, with potable or raw water, shall be reduced by 30% compared to the average use of the last three normal years or shall be irrigated to the sites Maximum Applied Water Allowance per District Water Efficient Landscape Code Appendix A, whichever is less.	Y
4	Limit landscape irrigation to specific days	40%	Limit irrigation to 1 day per week, assigned by the District.	Y
4	Prohibit certain types of landscape irrigation	40%	Golf course irrigation, with potable or raw water, shall be reduced by 40% compared to the average use of the last three normal years or shall be irrigated to 90% of the sites Maximum Applied Water Allowance per District Water Efficient Landscape Code Appendix A, whichever is less.	
5	Other landscape restriction or prohibition	50%	Irrigation restricted to maintain tree health for all	Y

			potable and raw water customers, including golf courses.	
5	Other	50%	Establish, or implement, Water Use Limits and associated penalties.	Y
Restrictions on Consumer Products				
0, 1, 2, 3, 4, 5, 6	Other	5%	The installation of reverse osmosis water purifying systems not equipped with an automatic shutoff unit is prohibited.	Y
0, 1, 2, 3, 4, 5, 6	Pools and Spas - Require covers for pools and spas	30%	All recreational pools and spas shall have covers.	Y
Restrictions on New Connections and Landscaping				
0, 1, 2, 3, 4, 5, 6	Other	5%	Single pass cooling systems for air conditioning or other cooling system applications are prohibited, unless required for health or safety reasons.	Y
0, 1, 2, 3, 4, 5, 6	Other	5%	New non-recirculating systems for conveyer car wash applications is prohibited.	Y
4, 5, 6	Other	40%	No installation of new landscapes including no expansion of existing landscapes.	Y
5	Moratorium or Net Zero Demand Increase on New Connections	50%	The Board shall consider a moratorium on new water service connections, or no net water use requirements for new connections.	Y
6	Other	55%	New water service connections will not be granted.	Y
6	Other	55%	The use of potable water for any purpose other than human health and sanitation is prohibited.	Y
Restrictions on Commercial Operations				

0, 1, 2, 3, 4, 5, 6	Lodging establishment must offer opt out of linen service	5%	Lodging establishments must provide patrons the option of not having towels and linen laundered daily.	Y
0, 1, 2, 3, 4, 5, 6	Restaurants may only serve water upon request	5%	Drinking water served upon request only.	Y
Other				
0, 1, 2, 3, 4, 5, 6	Prohibit use of potable water for washing hard surfaces	5%	The washing of sidewalks, walkways, driveways, parking lots and all other hard surfaced areas by direct hosing, except as may be permitted by current regulations pertaining to urban water runoff pollution prevention as defined by the Marin County Stormwater Pollution Prevention Program and other controlling agencies.	Y
0, 1, 2, 3, 4, 5, 6	Customers must repair leaks, breaks, and malfunctions in a timely manner	5%	The escape of water through breaks or leaks within the consumer's plumbing or private distribution system for any substantial period of time within which such break or leak should reasonably have been discovered and corrected. It shall be presumed that a period of 48 hours after the consumer discovers such a leak or break, or receives notice from the district of such leak or break, whichever occurs first, is a reasonable time within which to correct such leak or break.	Y
0, 1, 2, 3, 4, 5, 6	Other	5%	Gutter flooding is prohibited.	Y
3, 4, 5, 6	Other	30%	Use of potable water for refilling or make-up water of any decorative water features, is prohibited.	Y

2, 3, 4, 5, 6	Other	20%	Implement drought rates consistent with District-wide targeted water savings.	N
5, 6	Other landscape restriction or prohibition	50%	Refilling a completely drained swimming pool and initial filling of any swimming pool for which application for a building permit was made after District specified date.	Y
0, 1, 2, 3, 4, 5, 6	Require automatic shut-off hoses	5%	Using a garden hose without a shut-off nozzle is prohibited.	N
0, 1, 2, 3, 4, 5, 6	Other	5%	Any excess water runoff flowing onto the public right-of-way at a rate of one gallon per minute or greater not caused by storm water or naturally occurring groundwater is prohibited.	Y
0, 1, 2, 3, 4, 5, 6	Other	5%	Use of private fire lines or private fire taps for any purposes other than fire suppression and necessary testing is prohibited.	Y
3, 4, 5, 6	Other	30%	Washing vehicles with potable water except at commercial carwash facilities that use recycled water, is prohibited.	Y
3, 4, 5, 6	Other	30%	Power-washing any structure using potable water, unless required for health and safety as required by Marin County Health Department.	Y
3, 4, 5, 6	Limit use of potable water for construction and dust control	30%	Use of potable water for dust control, soil compaction, street cleaning, or any other use, as determined by the District, which can be met with disinfected tertiary recycled water.	Y
0, 1, 2	Other	5%	Sewer cleaning/flushing should be done using recycled water when available without hauling by truck and whenever reasonably possible.	Y

3, 4, 5, 6	Other	30%	Limit sewer cleaning/flushing to only recycled water.	Y
4,5,6	Other	40%	Request that local fire departments limit training exercises that use potable water and cease hydrant testing.	Y
6	Other	50%	Request that local fire departments cease training exercises that use potable water and cease hydrant testing.	Y
Notes: (a) The reductions shown are the combined reductions for all the actions associated with the particular shortage level.				

6.2 Variances to Dry Period Regulations

The District does allow for certain variances to the water shortage stage prohibitions discussed in Section 6.1. All variance requests must be submitted in writing to the District and include the account name, service number, and service address. Per the District's Water Conservation Ordinance (Title 13) variances may be granted to District customers as follows:

The District may grant variances for use of water otherwise prohibited under mandatory water use prohibitions if it is found and determined that:

(1) Failure to do so would cause an unnecessary and undue hardship on applicant or the public, including but not limited to, adverse economic impacts;

(2) Failure to do so would cause an emergency condition affecting the health, sanitation, fire protection or safety of the applicant or the public; or

(3) Customer is able and agrees to provide an alternative means of providing comparable water conservation.

Any request for a variance shall be submitted to the District in a writing providing sufficient detail regarding the request and the reasons therefore. After consideration of the variance request, a written decision shall be provided to the customer rejecting, partially approving or approving the variance request. If the customer disagrees with the initial determination, the customer may avail themselves of the appeal process set below.

(1) Customers may appeal a decision regarding a variance or an enforcement action by following the procedures set forth below:

(A) Within thirty (30) calendar days of the variance denial or partial denial or a notice of violation, customer shall mail a written appeal containing all applicable evidence supporting their position to the Water Efficiency Department at 220

Nellen Avenue, Corte Madera, CA 94925. For purposes of this section an appeal shall be deemed received by the District on the day of post-mark by the U.S. Postal Service.

(B) The District shall respond to the appeal in writing either denying, granting or partially granting the appeal. If customer disputes the initial written determination of his/her appeal, then customer may request a further appeal by submitting a further writing to the District within fifteen (15) calendar days from the date of the initial written response to the appeal.

(C) Upon receipt of a timely further appeal, a hearing on the appeal will be scheduled and the District will mail notice of this date to the customer at least ten (10) calendar days before the hearing.

(D)The General Manager or designee shall conduct a hearing on the appeal considering all applicable facts and issue a written decision containing his or her decision on the appeal. The General Manager's or designee's decision shall be final.

(E) Any action not timely appealed shall be deemed final.

(F) Pending receipt of a written appeal or pending hearing pursuant to an appeal, the District may take appropriate steps to prevent unauthorized use of water as appropriate to prevent waste.

(G) This notice and hearing procedure shall not apply to those water waste situations charged as misdemeanors.

6.3 District Actions

In addition to implementing and enforcing the prohibitions on end users discussed in 6.1, the District has identified a suite of actions and operational changes it will enact at the various stages of water shortage. These actions are meant to reduce water demands on the distribution system itself, facilitate implementation of the identified prohibitions, provide educational resources to customers, and to continue to offer customers opportunities to reduce their water use. The District actions identified for each stage of action are listed below.

Dry Condition Stage: Shortage Level 1: 10% Voluntary

Operations

- Increase Sonoma Water supplemental water imports and closely monitor storage levels and weather conditions

Advisory Stage: Shortage Level 2: 20% Voluntary

Operations

- Continue to maximize Sonoma Water supplemental water imports and closely monitor storage levels and weather conditions

- Minimize system flushing
- Initiate water waste patrols

Drought Rates

- Implement drought rates consistent with District-wide targeted water savings.

Alert Stage: Shortage Level 3: 30% Mandatory

Operations

- Continue to maximize Sonoma Water supplemental water imports and closely monitor storage levels and weather conditions
- Water waste patrols
- Increase system leak repair rate
- Restrict line flushing to include only regulatory compliance actions
- Access stored Emergency Supply - Soulajule and Phoenix

Drought Rates

- Drought rates will continue to increase based on declaration of water shortage stage and water savings target.

Severe Stage: Shortage Level 4: 40% Mandatory

Operations

- Continue to maximize Sonoma Water supplemental water imports and closely monitor storage levels and weather conditions
- Restrict line flushing to include only regulatory compliance actions
- Access stored Emergency Supply - Soulajule and Phoenix
- Increase system leak repair rate
- Increase Water waste patrols
- Consider Temporary Urgency Change Petition
- Consider Declaration of Water Shortage Emergency
- Consider limiting or excluding new service connections.

Drought Rates

- Drought rates will continue to increase based on declaration of water shortage stage and water savings target.

Critical Stage: Shortage Level 5: 50% Mandatory

Operations

- Continue to maximize Sonoma Water supplemental water imports and closely monitor storage levels and weather conditions
- Restrict line flushing to include only regulatory compliance actions
- Access stored Emergency Supply - Soulajule and Phoenix
- Increase system leak repair rate
- Increase water waste patrols
- Implement Temporary Urgency Change Petition
- Implement Water Use Limits and Penalties

Drought Rates

- Drought rates will continue to increase based on declaration of water shortage stage and water savings target.

Emergency Stage: Shortage Level 6: > 50% Mandatory

Operations

- Continue to maximize Sonoma Water supplemental water imports and closely monitor storage levels and weather conditions
- Restrict line flushing to include only regulatory compliance actions
- Access stored Emergency Supply - Soulajule and Phoenix
- Increase system leak repair rate
- Increase Water waste patrols
- Implement Temporary Urgency Change Petition
- Decrease Water Use Limits and implement issuance of Penalties to align with Health and Safety Water Allotments

Drought Rates

- Drought rates will continue to increase based on declaration of water shortage stage and water savings target.

6.4 Penalties, Charges, and Other Enforcement of Prohibitions

Table 6-1 in Section 6.1 identified the restrictions on water use by customers to be implemented during various stages of water shortage, as well as which of these items are enforceable by penalty. Any

customer violating the restrictions on water use identified in **Table 6-1** shall receive a penalty as described below per the District's Enforcement provisions::

(1) For violations of the provisions set forth in chapter, other than Section 13.02.020(1)(B), the following enforcement procedures shall apply:

(A) First *Notice*—Warning Letter. Any customer violating the regulations and restrictions on water use set forth in this chapter, other than Section 13.02.020(1)(B), shall receive a written warning informing them of the violation for the first such violation and warning that a second such violation will result in a penalty.

(B) *Notice* of Violation. If, after receiving a written warning of violation for the same category of violation within one year, the district shall issue a *notice* of violation imposing a $25.00 fine on the customer's next water bill.

(2) Repeat Violations. For customers found by the district to incur a further violation within the same category for which customer has already received a fine within the past year, customer shall be charged a fine of $250.00 for each successive violation.

(3) Additional Enforcement Procedures.

(A) Failure by the customer to correct the violation and pay the applicable fine, after following the procedures set forth above in this section, may cause the district to install a flow restrictor to be installed in the service. If a flow restrictor is placed, a charge of $150.00 for cost of installation and an additional $150.00 cost for removal shall be paid by the violator.

(B) Any willful violation occurring subsequent to the issuance of the third written *notice* of violation may constitute a misdemeanor and may be referred to the Marin County District Attorney's office for prosecution. An individual convicted shall be punished by imprisonment in the County Jail for not more than 30 days, or by a fine not exceeding $1,000.00 or both.

(C) The district may also disconnect the water service pursuant to Section 11.28.020 of this code. If water service is disconnected, it shall be restored only upon payment of the turn-on charge fixed by the Board of Directors.

6.5 Defining Water Features

As required by CWC §10632, the District distinguishes between "decorative water features" such as ponds, lakes, and fountains that are artificially supplied with water and "recreational water features" such as swimming pools and spas. Prohibitions on water use for decorative water features are listed separately from those for recreational water features (see **Table 6-1**).

6.6 Supply Augmentation

Table 6-2 below includes a list of potential water supply augmentation actions that may be implemented in the event of a water shortage. While shortage levels are indicated in the table below, prior to enacting these actions, the District will evaluate on a case-by-case basis:

(1) the sufficiency of demand reduction actions (**Table 6-1**) to supply shortage conditions,

(2) the feasibility of implementing the action in light of regulatory, operational, and other constraints, and

(3) the costs of implementing the action in context with the severity of the water shortage condition.

Table 6-3 Supply Augmentation and Other Actions (DWR Table 8-3)

Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier	How much is this going to reduce the shortage gap?	Additional Explanation or Reference *(optional)*
1	Increase supplemental water imports and closely monitor storage levels and weather conditions	Up to 5,000 AF	Range dependent on regional drought conditions and hydraulic capabilities
1	Enact dry year stream release flow reductions	Up to 100 AF	As defined under Water Right Order 95-17 and agreements with NMWD
2	Minimize system flushing	Unknown	Focus on water quality improvements
2	Water waste patrols	Unknown	
3	Restrict line flushing to include only regulatory compliance actions	Unknown	Flush for violations of water quality regulations or required disinfection for new construction and repairs.
3	Increase system leak repair to prioritize class 2 leaks	Unknown	
3	Access Stored Emergency Supply	Unknown	Rental of generator for Soulajule Reservoir to transfer water to Nicasio Reservoir
3	Access Stored Emergency Supply	Unknown	Initiate adjustments to pipe configuration to transfer water from Phoenix Lake to Bon Tempe Lake
4	Consider a Temporary Urgency Change Petition	Up to 2,500 AF	Change to environmental releases – possible reduction of migration flow volumes.
4	Increase water waste patrols	Unknown	
4	Increase system leak repair to prioritize class 1-3 leaks	Unknown	
4	Consider Declaration of Water Shortage Emergency	Unknown	
4	Initiate development of Emergency Supplemental Supplies	Unknown	

Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier	How much is this going to reduce the shortage gap?	Additional Explanation or Reference *(optional)*
5	Consider a moratorium on new water service connections, or no net water use requirements for new connections	Unknown	
5	Implement Water Use Limits and Penalties	Unknown	Long term
6	Decrease Water Use Limits and implement issuance of Penalties to align with Health and Safety Water Allotments	Unknown	Conducting feasibility analysis
NOTES:			

6.7 Shortage Response Action Effectiveness

Table 6-1 summarizes the District's water shortage response actions with their estimated water reductions for each stage. For each action identified, the District has estimated the extent to which that action will reduce the gap between supplies and demands. The District has estimated the effectiveness of the shortage response actions based on water use reductions that have occurred historically and on expected reductions associated with implementing the Water Use Limits and Associated Penalties, and Drought Rates in more severe shortages.

7 CATASTROPHIC SUPPLY INTERRUPTION

Catastrophic supply interruptions may be caused by a regional power outage, an earthquake, or other disaster. In accordance with the Emergency Services Act, the District has developed an Emergency Operation Plan (EOP). This EOP guides response to unpredicted catastrophic events that might impact water delivery including regional power outages, earthquakes, or other disasters. The EOP outlines standard operating procedures for all levels of emergency, from minor accidents to major disasters. The District's EOP has been coordinated with the SCWA and neighboring water purveyors.

In addition to the EOP, the District has prepared Emergency Action Plans for each of their dams that have been filed with the Department of Safety of Dams and the Marin County Office of Emergency Services. These Emergency Action Plans include inundation maps as well as notification procedures and contacts with the California Office of Emergency Services to assist first responders in case of an emergency.

7.1 Seismic Risk Assessment

Impacts associated with earthquakes and liquefaction are discussed in the *2022 Marin Municipal Water District Hazard Mitigation Plan* (District LHMP)[1]. The District LHMP assesses the District's vulnerabilities to various hazards, including seismic hazards, and presents mitigation strategies that are planned over the next five years.

The District LHMP includes a discussion of the probability of a seismic event affecting District assets, citing an ABAG projection of a 63% chance of an earthquake of magnitude 6.7 of greater on one of the faults affecting Marin County between now and 2032. The District LHMP notes that much of the District's assets are located within mapped liquefaction areas or areas of high risk soils. The District LHMP includes an assessment of the District's vulnerability in the event of a major seismic event, and estimates that an earthquake on the San Andreas Fault of magnitude 7.8 would result in a total building damage of approximately $185 million.

Some measures to mitigate seismic risk identified in the District LHMP include:

- Harden infrastructure and provide redundancy for critical functions;
- Perform seismic retrofits for vulnerable critical assets;
- Keep reserves for reconstruction; and
- Develop and adopt a continuity of operations plan.

Further discussion of seismic risks specific to the SCWA water system is provided in the *Sonoma County Water Agency Local Hazard Mitigation Plan,* dated 16 October 2018 (SCWA LHMP; SCWA, 2018).[2] The SCWA LHMP specifically assesses SCWA's natural hazard risks and vulnerabilities facing the SCWA infrastructure and provides a plan of action to address these vulnerabilities. The SCWA LHMP identifies a series of mitigation measures to address seismic risk, including seismic retrofits of distribution system components to protect against damage due to liquefaction and lateral spread hazard and installation of automated throttling valves at aqueducts and interties to minimize uncontrolled releases out of SCWA facilities. For more detail regarding planned mitigation measures to address seismic risks, please refer to the SCWA LHMP.

The District also assessed the risks of an earthquake to the District's water supply system and infrastructure in the Marin Municipal Water District Water Resources Plan 2040 (MMWD, 2017).[3] Through use of the Marin WaterSim model, it was determined that, while several treatment plants could become un-operational for up to three months following an earthquake event, District water demands

[1]District's LHMP can be found at the following website: https://www.marinwater.org/sites/default/files/2022-04/2022-03-23_MMWD_Hazard_Mitigation_Plan_Final.pdf

[2] The SCWA LHMP could be found in the following website: https://evogov.s3.amazonaws.com/185/media/186587.pdf

[3] The Marin Municipal Water District Water Resources Plan 2040 could be found in the District website: https://www.marinwater.org/sites/default/files/2020-09/Water%20Resources%20Plan%202040.pdf

could still be met by increasing production from unaffected treatment plants. More detail regarding the earthquake risk assessment and modelling can be found in District's Water Resources Plan 2040.

8 COMMUNICATION PROTOCOLS

Each stage of the WSCP will be enacted and retracted with a formal declaration by the District Board of Directors based on identified triggers and staff recommendation, or upon the determination that SCWA or another governing authority (e.g., the SWRCB) has required a voluntary or mandatory reduction in water use due to a water supply shortage or emergency. Procedures for water shortage declaration and termination are detailed below in Section 10.

Even before formal declaration of a water shortage, a public information program will be activated to provide customers with as much advance notice as possible. Following declaration of a shortage, District customers would need to be provided notice of water shortage rules and regulations via a variety of media and communications methods. Some of these communication methods will include the following:

Dry Conditions Stage: Shortage Level 1: 10% Voluntary

- Initiate public outreach campaign to communicate about dry conditions
- Education focused on ongoing prohibitions and water waste reporting
- Provide list of simple actions that can be done to save water (e.g., use a broom instead of hosing down a sidewalk)
- Explain drought situation to the public and governmental bodies via "Drought Watch" to provide a snapshot of the water supply picture, restrictions, and water conservation tips
- Promote the Weekly Watering Schedule
- Explain other stages and forecast future actions

Advisory Stage: Shortage Level 2: 20% Voluntary

- Accelerate public information and increase outreach
- Develop internal speakers bureau to provide educations presentations to community groups
- Develop (or use existing) brief and simple educational videos that cover topics normally touched on during water efficiency phone consultations
- Provide outreach toolkit to cities in service area of drought conditions to ensure collaboration
- Encourage use of graywater and weather-based landscape watering
- Explain other stages and forecast future actions

Alert Stage: Shortage Level 3: 30% Mandatory

- Accelerate public information program, outreach campaign, and communication with news media to help amplify messaging

- Provide updated outreach toolkit to cities to ensure collaboration
- Reduce Weekly Watering Schedule to deficit irrigation
- Continue to encourage use of graywater and weather-based landscape watering
- Explain other stages and forecast future actions

Sever Stage: Shortage Level 4: 40% Mandatory

- Provide information to customers about trees preservation during drought conditions
- Accelerate public information program, outreach campaign, and communication with news media to help amplify messaging
- Provide updated outreach toolkit to cities to ensure collaboration
- Reduce Weekly Watering Schedule to deficit irrigation
- Continue to encourage use of graywater and weather-based landscape watering
- Explain other stages and forecast future actions

Critical Stage: Shortage Level 5: 50% Mandatory

- Accelerate public information program, outreach campaign, and additional communication with news media to help amplify messaging
- Provide updated outreach toolkit to cities to ensure collaboration
- Explain other stages and forecast future actions
- Communicate Water Use Limits and associated penalties
- Provide information to customers about trees preservation during drought conditions
- Reduce Weekly Watering Schedule to deficit irrigation
- Continue to encourage use of graywater and weather-based landscape watering

Emergency Stage: Shortage Level 6: > 50% Mandatory

- Accelerate public information program, outreach campaign, and additional communication with news media to help amplify messaging regarding Health and Safety Water Allotments
- Provide updated outreach toolkit to cities to ensure collaboration
- Provide information to customers about trees preservation during drought conditions
- Reduce Weekly Watering Schedule to deficit irrigation
- Continue to encourage use of graywater and weather-based landscape watering

Coordination between the District and other public agencies may begin prior to formal declaration of a water shortage and can be accomplished through regular meetings, e-mail group updates, and presentations. In a regional water shortage scenario, the District would use public outreach resources and materials provided by SCWA, ACWA, Marin County, and other strategic partners, as well as its own resources as described above.

9 COMPLIANCE AND ENFORCEMENT

As discussed in Section 6.4, any customer violating the regulations and restrictions on water use set forth above in **Table 6-1** shall receive a written warning for the first such violation, and then a notice of violation and a $25 fine for a second violation, and additional penalties for repeat violations as noted in Section 6.4. Additional enforcement procedures may include the following:

- Failure to correct the violation and pay the applicable fine may cause the District to install a flow restrictor on the service.
- Any willful violation occurring subsequent to the issuance of the third written notice of violation may constitute a misdemeanor and may be referred to the Marin County district attorney's office for prosecution.
- The District may also disconnect the water service pursuant its code. If water service is disconnected, it shall be restored only upon payment of the turn-on charge fixed by the board of directors.

As discussed in Chapter 9 of the District's 2020 Urban Water Management Plan (UWMP), several District staff members jointly share the responsibility for implementation of the District's water conservation program. Staff time dedicated to water conservation and enforcement action will increase with the severity of a supply shortage. Additional duties may be assigned to current employees or hiring of temporary staff may be considered to meet staffing needs during extreme water shortages.

10 LEGAL AUTHORITIES

The District has the ability to declare and rescind a Water Shortage Emergency under the following authorities and conditions as described under the WSCP shortage levels:

- Article X, Section 2 of the California Constitution mandates that the water resources of the State be put to beneficial use to the fullest extent and that waste or unreasonable use or method of use of water be prevented.
- California Water Code Sections 350 and 71640 authorize the governing body of a municipal water district to find the existence or threat of a drought emergency or other threatened or existing water shortage, and that finding is prima facie evidence of the fact or matter so found, and such fact or matter shall be presumed to continue unchanged unless and until a contrary finding is made by the board by resolution or ordinance.
- Pursuant to California Water Code Sections 353 and 71641, the District may restrict the use of district water during the drought emergency or other water shortage condition and may prohibit the wastage of district water or the use of district water during such periods for any

purpose other than household uses or other restricted uses as the District determines to be necessary.

- Pursuant to California Water Code Sections 376 and 71641 and Government Code Section 6061, the District must publish in a newspaper of general circulation any ordinance setting forth the restrictions, prohibitions, and exclusions determined to be necessary under Water Code Sections 353 and 71640 within 10 days after its adoption. The District's Board may adopt mandatory restriction and prohibitions on the consumption and use of water within the service area so that the water supply can be conserved for the greater public benefit.
- Pursuant to Water Code sections 350 and 71640, and for per the annual water supply and demand assessment, the Board may find the existence or threat of a drought emergency or other water shortage condition.
- The District shall coordinate with any city or county within which it provides water supply services for the possible proclamation of a local emergency.

11 FINANCIAL CONSEQUENCES OF WSCP

Since the District bills its customers, in part, per unit volume of water consumed, the District would experience a reduction in revenue upon implementation of water conservation measures pursuant to the WSCP. The District may also experience expense increases related to increased public outreach, water waste patrols, emergency water transfers, and generators and fuel to allow for the transfer of water from Soulajule to Nicasio reservoir. To compensate for the expected revenue reduction caused by water conservation, the District may utilize reserves to the extent possible and has the authority to implement temporary drought rates, increasing water rates. Additionally, the District's Board of Directors may establish a water rate structure, including excess water use surcharges that provides incentives to conserve water. Individual customers may seek a waiver of excess water use surcharges through the variance process as described in Section 6.2.

12 MONITORING AND REPORTING

The District's local surface water supply and SCWA supply turnouts are all equipped with water meters. In addition, each potable water customer is metered. Non-residential landscape irrigation is metered separately from indoor use at most non-residential sites. The District reads meters on a bi-monthly basis and is able to document both demand reductions and a typically high water use. The District contacts individual customers to resolve issues related to a typically high water use.

Pursuant to California Code of Regulations (CCR) Title 23 §991, the District reports monthly water use and production to the SWRCB.[4] Effective October 1, 2020, during a governor declared drought emergency or when an urban water supplier invokes a water shortage level to respond to a drought

[4] Water supplier monthly reports can be accessed at https://www.waterboards.ca.gov/water_issues/programs/conservation_portal/conservation_reporting.html

greater than 10%, each supplier is required to submit an expanded report that contains the supplier's actions and statistics in achieving planning reductions.

13 WSCP REFINEMENT PROCEDURES

The WSCP is implemented as an adaptive management plan. The District will evaluate the need to revise its WSCP every year after performing its Annual Water Supply and Demand Assessment. The evaluation will consider the effectiveness of WSCP actions and any anticipated water supply shortages. If the WSCP is revised, the District Board of Directors will adopt a new resolution adopting the revised WSCP.

14 PLAN ADOPTION, SUBMITTAL, AND AVAILABILITY

Prior to adopting the WSCP, the District held a formal public hearing to present information on the WSCP on 21 February 2023 in a virtual meeting. The WSCP was adopted by Resolution No. XXXX during the same meeting. A copy of the resolution is included in **Attachment 2**. A copy of the adopted 2023 WSCP including any amendments will be provided to the Department of Water Resources (DWR), the California State Library, and Marin County within 30 days of the adoption (**Attachment 2**). An electronic copy of the adopted 2023 WSCP will be submitted to the DWR using the DWR online submittal tool. A copy of the adopted 2023 WSCP will be available for public review on the District's website within 30 days after filing the plan with DWR.

ATTACHMENT 1: SONOMA COUNTY WATER AGENCY ANNUAL WATER SUPPLY AND DEMAND ASSESSMENT PROCEDURES (SCWA WSCP APPENDIX C)

This section presents the procedures that will be used by Sonoma Water to conduct an annual water supply and demand assessment (annual assessment). The annual assessment is required to be submitted annually to DWR beginning on July 1, 2022. The assessment forecasts near-term water supply conditions to ensure shortage response actions are triggered in a timely manner. The annual assessment will provide 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.

One of the most important functions provided by Sonoma Water is to monitor water supply conditions to gauge the likelihood of water shortages so that Sonoma Water's wholesale customers will be prepared to respond to the shortages. Sonoma Water constantly monitors the reservoir levels at Lake Pillsbury, Lake Mendocino, and Lake Sonoma, and estimates flows in and out of those reservoirs, weather forecasts, and natural flows into and diversions from the Russian River and Dry Creek. By using this data as well as historical data regarding water use in different climatic conditions, Sonoma Water can project when a water shortage may be imminent.

The following subsections describe the decision-making process and data and methodologies. Sonoma Water may modify these procedures based on its experience developing the annual assessment.

Decision Making Process

This section presents the decision-making process and timeline (see Table 1) that Sonoma Water will use each year to determine its water supply reliability. Sonoma Water may revise this decision-making process based on the experience gained from going through the process.
To develop the supply portion of the annual assessment, Sonoma Water staff will start monitoring water supply conditions in December prior to the January Decision 1610 trigger date for setting instream flow requirements per the water year classification specified in Decision 1610. Decision 1610 also requires an assessment of the water year classification and instream flow requirements at the beginning of each subsequent month until June 1, when it is set for the remainder of the year. Consequently, Sonoma Water staff will continue to monitor water supply conditions (reservoir levels, stream/river flows, soil moisture, precipitation, etc.) throughout this time period to ensure its assessment of water supply conditions are consistent with watershed hydrologic conditions and reservoir storage levels. The final annual assessment will include the actual supply conditions up to May. If a water shortage is forecast for the subsequent calendar year, the monitoring of water supply conditions would be conducted during the September to December period of the current calendar year.

To develop the demand portion of the annual assessment, the projections of water demand to be supplied by Sonoma Water for the calendar year and subsequent calendar year will be developed and provided by all of Sonoma Water's customers by February 1. Sonoma Water staff will use the most recent demand data to develop demand projections for those customers that do not provide projections. The annual assessment will consider all demands on Sonoma Water's system to establish the supply available for Sonoma Water's customers that must complete and submit their own annual assessments to DWR.

Sonoma Water will present and submit the annual assessment following the steps described below.

1. Present draft annual assessment to Sonoma Water's customers. The draft annual assessment will be presented to the TAC ad-hoc committee at the April meeting. The assessment will also be presented to the Sonoma Water's other customers. An initial evaluation will be made regarding the potential for a water shortage condition to occur. If a shortage is forecast for the current calendar year and particularly during the critical months of July to October, the initial implementation of WSCPs will be coordinated with all the customers.
2. Receive review comments. Sonoma water's customers will present their review comments including their updated demands and local supply projections at the May TAC meeting. Sonoma Water will communicate directly with Sonoma Water's other customers to obtain their review comments.
3. Present final annual assessment to the TAC. The final annual assessment report will be prepared and presented at the June TAC meeting. The annual assessment may be presented to the WAC. Sonoma Water will coordinate through the TAC to identify if any water supply gaps exist for each customer when considering both Sonoma Water supplies and local supplies. The assessment will be provided directly to Sonoma Water's other customers.
4. Optional presentation of the annual assessment to the Board of Directors. The annual assessment may be presented to Sonoma Water's Board of Directors during one of their regularly scheduled meetings, particularly if a shortage is anticipated or if an existing shortage condition is to be ended.
5. Submit annual assessment to DWR. Sonoma Water will submit the annual assessment report to DWR by July 1 of each year.

Table 1. Annual Assessment Timeline

Task	Dec	Jan	Feb	Mar	Apr	May	Jun
Monitor and forecast water supply conditions	■	■	■	■			
Sonoma Water's customers develop and provide water demand forecast by February 1.		■					
1. Present draft annual assessment to Sonoma Water's customers					■		
2. Receive review comments					■		
3. Present final annual assessment to the TAC						■	■
4. Present annual assessment to the Board of Directors							■
5. Submit annual assessment to DWR (due July 1st)							■

Data and Methodologies

This section presents the key data inputs and assessment methodology that will be used to evaluate Sonoma Water's water supply. The evaluation criteria, water supply, unconstrained demand, water supply, planned water use, infrastructure considerations, and other factors are described.

Evaluation Criteria

The evaluation criteria that will be relied on for each annual assessment include the key data inputs and the constraints that are imposed on the water supplies.

The key data inputs that are used by Sonoma Water staff to forecast water supply for the remainder of the current year and a subsequent dry year include the items described below.

• **Unconstrained customer demand.** Current and subsequent calendar year unconstrained demand for each of Sonoma Water's wholesale customers considering weather, growth, and other influencing factors.

• **Russian River operations.** Current reservoir releases from Lake Sonoma and Lake Mendocino, including anticipated releases to meet in-stream flow requirements and water demands and based on reservoir curves and forecast informed reservoir operations (FIRO) decision support tools.
• **Hydrology and watershed conditions.** Lake Sonoma and Lake Mendocino inflows and storage levels, and soil moisture.

• **Potter Valley Project inflows.** Lake Pillsbury storage levels and observed and projected project transfers.

• **Weather forecasts and historical hydrological records.** Weather forecasts combined with historical records will be used to evaluate probabilities using statistical methods.

The water supply constraints are due to a variety of agreements and decisions, as follows.

• **Lake Sonoma storage level.** Sonoma Water's water rights permits include a provision that requires Sonoma Water to impose a 30 percent reduction in deliveries from the Russian River to its service area when Lake Sonoma storage levels drop below 100,000 acre-feet (ac-ft) before July 15 of any year. This provision is described in more detail in Section 5.1.6.1 in the 2020 Plan.

• **Lake Mendocino storage level.** Having a sufficient supply of water in Lake Mendocino in the fall is of critical importance to the salmonid species in the Russian River and to meet municipal and industrial demands and agricultural irrigation needs.

• **Minimum instream flow requirements.** The minimum instream flow schedule varies based on the hydrologic classifications of Normal, Dry, and Critical water supply conditions as defined in Decision 1610. These classifications will be revised using a new hydrologic index. Minimum instream flow requirements for the Russian River and Dry Creek are met by releases from Coyote Valley Dam and Warm Springs Dam.

• **Flood control operations criteria.** The United States Army Corps of Engineers (USACE) determines the schedule and amount of water released from Lake Mendocino and Lake Sonoma during flood control operations when storage levels exceed the water supply storage pool. Rules of the water control manuals of the reservoirs (USACE, 1984 & 2003) require the flood control pool to be empty except during periods of high flows downstream. During high flow events water is temporarily detained in the flood control pool (above the water supply pool), and later released at rates that avoid exceeding downstream flood stage.

• **Maximum flow releases from Warm Springs and Coyote Valley Dams.** The Lake Mendocino and Sonoma water control manuals define maximum release that are a function of reservoir water elevation or storage level. The maximum release schedules typically only apply during flood control operations. Releases from the reservoirs are further constrained by rules that define the maximum rate of change of release (ramping rates) to minimize rapid changes in stage downstream and avoid fish stranding. These ramping rates were defined in a 2016 letter to the USACE from the National Marine Fisheries Service (NMFS) (NMFS, 2016).

• **The Russian River Biological Opinion.** The Russian River Biological Opinion places certain terms and conditions on the Sonoma Water with respect to its water supply operations.

Water Supply

The Russian River provides most of Sonoma Water's water supply with groundwater supply from the Santa Rosa Plain as a secondary source. Sonoma Water diverts water from the Russian River near Forestville and conveys the water via its transmission system to its customers. Sonoma Water's 2020 Plan (Section 5) provides a more detailed description of the water supplies. The method used to forecast the quantify of water supply is described in Section 3.2.4 below.

Almost all of Sonoma Water's customers, surplus customers, and Russian River customers have other water supplies, in addition to those provided by Sonoma Water, which include local surface water, local groundwater, and recycled water. These local supplies will not be included in the assessment. Each customer will develop its own assessment of their available supplies.

Unconstrained Customer Demand

The assessment will present the current year unconstrained demands from Sonoma Water's customers, considering weather, growth, and other influencing factors. The unconstrained water demands will be provided by the customers or developed by Sonoma Water.

Planned Water Use for Current Year Considering Dry Subsequent Year

The assessment will present an evaluation of the amount of anticipated water supplies for the current calendar year as well as how the supplies will be used, while anticipating that the following calendar year will be dry.

The annual assessment will be based on evaluating the key data inputs to determine the water supply reliability. The methodology to develop the annual assessment will follow the general approach described below.

1. Quantify current calendar year water supply. The available water supply from all water supply sources will be estimated for the current calendar year based on the data inputs, evaluation criteria, and hydrological and regulatory conditions. The current calendar year consists of the latter portion of the current wet season and the earlier portion of the subsequent wet season. Sonoma Water staff will evaluate water supply conditions beginning at least mid-month prior from January to June to determine whether anticipated conditions warrant any actions by Sonoma Water. The wet season that starts in the Fall of the current year will be assumed to be dry as described in the next step. The projections of the water supply will be expressed as a range and based on the results of operations modeling of the Russian River system consisting of the statistical evaluation of multiple scenarios. The model is described later in this subsection. Figure 1 presents the key considerations for the assessment of Russian River supply conditions.

2. Quantify subsequent calendar year supply. The subsequent calendar year water supplies will be estimated by assuming that the next wet season that starts at the end of the current calendar year will be dry. Sonoma Water will select the climate type for the wet season that starts at the end of the subsequent calendar year. Sonoma Water will base the estimate of dry season water supplies on a statistical analysis of the historical precipitation record and the selection of an appropriate exceedance frequency. The details of the methodology will be defined in the development of the assessment.

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 will be considered.

4. Quantify unconstrained water demand. The unconstrained water demands for all the customers will be provided by the customers or developed by Sonoma Water staff.

5. Compare projected water supplies to demands. The water supplies identified in the annual assessment will 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 calendar year. The forecast will be coordinated with Sonoma Water's customers, surplus customers, and Russian River customers. Depending on the extent of the forecast shortage, the appropriate shortage stage will be selected. If the early winter season has been wet and the forecast is for a wet season, there would be no concerns. If the season was dry in the early wet season, there would be a potential concern and river flows and reservoir levels would be monitored more closely. Depending on the extent of precipitation in the latter portion of the wet season, the forecast could be changed to no concern or to an anticipated shortage.

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 it customers to conserve and utilize local supplies. The State Water Resources Control could also mandate reduction of diversions by Sonoma Water. For example, mandatory reductions would be required (as specified in Sonoma Water's water rights) if Lake Sonoma levels reached 100,000 ac-ft by July 15 of a given year. Such reductions would be implemented in accordance with the applicable provisions of the Restructured Agreement and consistent with the defined shortage stages. If a shortage is identified, the water shortage allocation methodology specified by the Restructured Agreement would be used to allocate the reduced supply to each customer. Each of Sonoma Water's customers would develop their own annual assessments that will include estimates of their projected quantity of local water supplies.

The forecast of the amount of available water supplies will be developed by Sonoma Water using the Russian River System Model (RR ResSim). The model is used as a planning tool to simulate the effects of various climatic conditions, levels of demand, and operational criteria on the water supply available for use by Sonoma Water and others.

Infrastructure Considerations

The annual assessment will include an evaluation of how infrastructure capabilities and constraints may affect Sonoma Water's ability to deliver supplies to meet expected customer water use needs in the current year.

Other Factors

The annual assessment will describe any other locally applicable factors that could influence the amount of available water supplies.
Summary: D1610 contains trigger points at the first of the month (January – June) to establish the Hydrologic Index (HI) based on cumulative inflows into Lake Pillsbury (Eel River). Sonoma Water staff evaluate water supply conditions (as shown in Figure 1 below) beginning at least mid-month prior to each of the D1610 trigger dates to determine whether anticipated conditions at the trigger date warrant any actions by Sonoma Water. This assessment process may be revised to consider a changed HI based on the Fish Flow Project as described in Section 5.1.6.1 of the 2020 Plan. While D1610 is currently used, a proposal to change Sonoma Water's water rights may require an updated methodology.

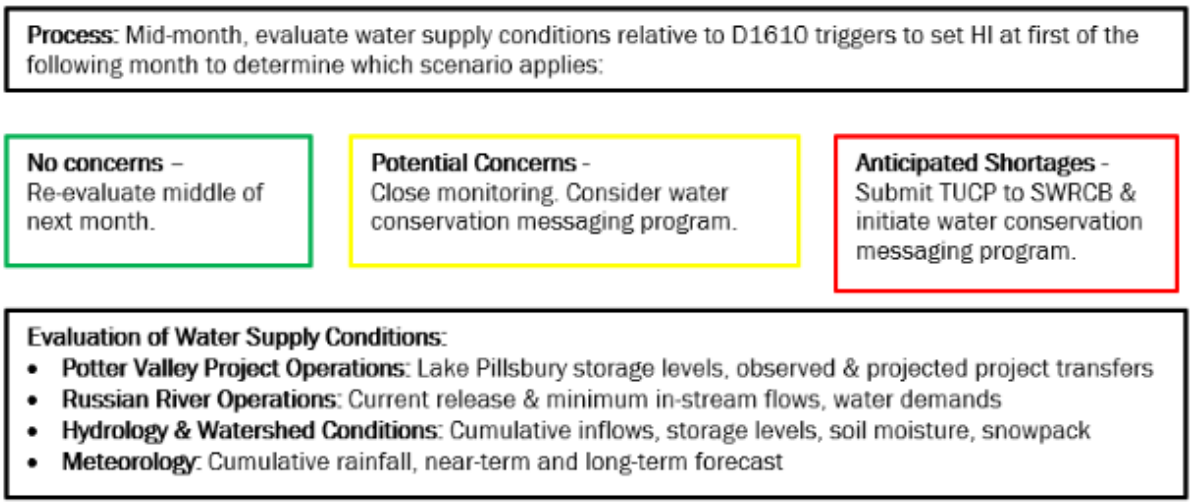


Figure 1. Assessment of Russian River Supply Conditions.

ATTACHMENT 2 WATER SHORTAGE CONTINGENCY PLAN RESOLUTION

ATTACHMENT 3: WATER SHORTAGE RESPONSE ACTIONS: PROHIBITIONS AND DISTRICT ACTIONS

DRY CONDITIONS STAGE

Shortage Level 1: 10% Voluntary (Trigger at Reservoir Storage < 70,000 acre-feet April 1)

Prohibitions on End Users

Water Waste Prohibitions outlined in District's Title 13.02

District Actions

Operations

- Increase supplemental water imports and closely monitor storage levels and weather conditions
- Enact dry year stream release flow restrictions

Outreach

- Initiate public outreach campaign to communicate about dry conditions
- Education focused on ongoing prohibitions and water waste reporting
- Provide list of simple actions that can be done to save water (e.g., use a broom instead of hosing down a sidewalk)
- Explain drought situation to the public and governmental bodies via "Drought Watch" to provide a snapshot of the water supply picture, restrictions, and water conservation tips
- Promote the Weekly Watering Schedule
- Explain other stages and forecast future actions

ADVISORY STAGE

Shortage Level 2: 20% Voluntary (Trigger at Reservoir Storage < 65,000 acre-feet April 1)

Prohibitions on End Users

Water Waste Prohibitions outlined in District's Title 13.02.020

District Actions

Operations

- Continue to maximize supplemental water imports and closely monitor storage levels and weather conditions
- Minimize system flushing
- Initiate water waste patrols

Outreach

- Accelerate public information and increase outreach
- Communicate up to 20% voluntary reduction goals
- Develop internal speakers bureau to provide educations presentations to community groups

- Develop (or use existing) brief and simple educational videos that cover topics normally touched on during water efficiency phone consultations
- Provide outreach toolkit to cities in service area of drought conditions to ensure collaboration
- Encourage use of graywater and weather-based landscape watering
- Explain other stages and forecast future actions

Drought Rates

- Implement drought rates consistent with District-wide targeted water savings

ALERT STAGE

Shortage Level 3: 30% Mandatory (Trigger at Reservoir Storage < 55,000 acre-feet April 1)

Prohibitions on End Users

- Water Waste Prohibitions outlined in District's Title 13.02.020, with trigger for additional Stage 3 measures, as follows:
- Washing vehicles with potable water except at commercial carwash facilities that use recycled water, is prohibited.
- Use of potable water for refilling or make-up water of any decorative water features, is prohibited.
- Golf course irrigation, with potable or raw water, shall be reduced by 30% compared to the average use of the last three normal years or shall be irrigated to the sites Maximum Applied Water Allowance per 13.02.021 Appendix A, whichever is less.
- Power-washing any structure using potable water, unless required for health and safety as required by Marin County Health Department.
- Limit sewer cleaning/flushing to only recycled water.
- Use of potable water for dust control, soil compaction, street cleaning, or any other use, as determined by the District, which can be met with disinfected tertiary recycled water.

District Actions

Operations

- Continue to maximize supplemental water imports and closely monitor storage levels and weather conditions
- Continue water waste patrols to align with Prohibitions on End Users
- Increase system leak repair rate
- Restrict line flushing to include only regulatory compliance actions
- Access stored Emergency Supply - Soulajule and Phoenix

Outreach

- Accelerate public information program, outreach campaign, and communication with news media to help amplify messaging

- Provide updated outreach toolkit to cities to ensure collaboration
- Reduce Weekly Watering Schedule to deficit irrigation
- Continue to encourage use of graywater and weather-based landscape watering
- Explain other stages and forecast future actions

Drought Rates

- Drought rates will continue to increase based on declaration of water shortage stage and water savings target.

SEVERE STAGE

Shortage Level 4: 40% Mandatory (Trigger at Reservoir Storage < 45,000 acre-feet April 1)

Prohibitions on End Users

- Water Waste Prohibitions outlined in District's Title 13.02.020
- Washing vehicles with potable water except at commercial carwash facilities that use recycled water, is prohibited.
- Decorative water features, including the refilling or make-up of any decorative water features, is prohibited.
- Power-washing any structure using potable water, unless required for health and safety as required by Marin County Health Department.
- Limit sewer cleaning/flushing to only recycled water.
- Use of potable water for dust control, soil compaction, street cleaning, or any other use, as determined by the District, which can be met with disinfected tertiary recycled water.
- Golf course irrigation, with potable or raw water, shall be reduced by 40% compared to the average use of the last three normal years or shall be irrigated to 90% of the sites Maximum Applied Water Allowance per 13.02.021 Appendix A, whichever is less.
- Limit irrigation to 1 day per week, assigned by the District.
- No installation of new landscapes including no expansion of existing landscapes.
- Request that local fire departments limit training exercises that use potable water and cease hydrant testing.

District Actions

Operations

- Continue to maximize Sonoma Water supplemental water imports and closely monitor storage levels and weather conditions
- Restrict line flushing to include only regulatory compliance actions
- Access stored Emergency Supply - Soulajule and Phoenix

- Increase system leak repair rate to prioritize class 1-3 leaks
- Increase water waste patrols to align with Prohibitions on End Users
- Consider Temporary Urgency Change Petition
- Consider Declaration of Water Shortage Emergency
- Consider limiting or excluding new service connections.

Outreach

- Provide information to customers about trees preservation during drought conditions
- Accelerate public information program, outreach campaign, and communication with news media to help amplify messaging
- Provide updated outreach toolkit to cities to ensure collaboration
- Reduce Weekly Watering Schedule to deficit irrigation
- Continue to encourage use of graywater and weather-based landscape watering
- Explain other stages and forecast future actions

Drought Rates

- Drought rates will continue to increase based on declaration of water shortage stage and water savings target.

CRITICAL STAGE

Shortage Level 5: 50% Mandatory (Trigger at Reservoir Storage < 35,000 acre-feet April 1)

Prohibitions on End Users

- Water Waste Prohibitions outlined in District's Title 13.02.020
- Washing vehicles with potable water except at commercial carwash facilities that use recycled water, is prohibited.
- Decorative water features, including the refilling or make-up of any decorative water features, is prohibited.
- Use of potable water for dust control, soil compaction, street cleaning, or any other use, as determined by the District, which can be met with disinfected tertiary recycled water.
- No installation of new landscapes including no expansion of existing landscapes.
- Power-washing any structure using potable water, unless required for health and safety as required by Marin County Health Department.
- Limit sewer cleaning/flushing to only recycled water
- Request that local fire departments limit training exercises that use potable water and cease hydrant testing.
- Irrigation restricted to maintain tree health for all potable and raw water customers, including golf courses.

- Refilling a completely drained swimming pool and initial filling of any swimming pool for which application for a building permit was made after District specified date.
- Establish Water Use Limits and associated penalties

District Actions

Operations

- Continue to maximize Sonoma Water supplemental water imports and closely monitor storage levels and weather conditions
- Restrict line flushing to include only regulatory compliance actions
- Access stored Emergency Supply - Soulajule and Phoenix
- Increase system leak repair rate
- Increase water waste patrols
- Implement Temporary Urgency Change Petition
- Implement Water Use Limits and Penalties
- The Board shall consider a moratorium on new water service connections, or no net water use requirements for new connections.

Outreach

- Accelerate public information program, outreach campaign, and additional communication with news media to help amplify messaging
- Provide updated outreach toolkit to cities to ensure collaboration
- Explain other stages and forecast future actions
- Communicate Water Use Limits and associated penalties
- Provide information to customers about trees preservation during drought conditions
- Reduce Weekly Watering Schedule to deficit irrigation
- Continue to encourage use of graywater and weather-based landscape watering

Drought Rates

- Drought rates will continue to increase based on declaration of water shortage stage and water savings target.

EMERGENCY STAGE

Shortage Level 6: > 50% Mandatory (Trigger at Reservoir Storage < 25,000 acre-feet April 1)

- Water Waste Prohibitions outlined in District's Title 13.02.020
- Washing vehicles with potable water except at commercial carwash facilities that use recycled water, is prohibited.

- Decorative water features, including the refilling or make-up of any decorative water features, is prohibited.
- Use of potable water for dust control, soil compaction, street cleaning, or any other use, as determined by the District, which can be met with disinfected tertiary recycled water.
- No installation of new landscapes including no expansion of existing landscapes.
- Power-washing any structure using potable water, unless required for health and safety as required by Marin County Health Department.
- Limit sewer cleaning/flushing to only recycled water
- Refilling a completely drained swimming pool and initial filling of any swimming pool for which application for a building permit was made after District specified date.
- Request that local fire departments cease training exercises that use potable water and cease hydrant testing.
- The use of potable water for any purpose other than human health and sanitation is prohibited.
- Implement Health and Safety Water Allotments.
- New water service connections will not be granted.

District Actions

Operations

- Continue to maximize supplemental water imports and closely monitor storage levels and weather conditions
- Restrict line flushing to include only regulatory compliance actions
- Access stored Emergency Supply - Soulajule and Phoenix
- Increase system leak repair rate
- Increase Water waste patrols
- Implement Temporary Urgency Change Petition
- Decrease Water Use Limits and implement issuance of penalties to align with Health and Safety Water Allotments

Outreach

- Accelerate public information program, outreach campaign, and additional communication with news media to help amplify messaging regarding Health and Safety Water Allotments
- Provide updated outreach toolkit to cities to ensure collaboration
- Explain other stages and forecast future actions
- Provide information to customers about trees preservation during drought conditions
- Reduce Weekly Watering Schedule to deficit irrigation

- Continue to encourage use of graywater and weather-based landscape watering

Drought Rates

- Drought rates will continue to increase based on declaration of water shortage stage and water savings target.

ATTACHMENT 4: WATER WASTE PROHIBITIONS IN EFFECT AT ALL TIMES

13.02.020 Water waste prohibitions.

No customer of the district shall make, cause, use or permit the use of potable water from the district for residential, commercial, industrial, agricultural, governmental or any other purpose in a manner contrary to any provision of this section.

(1) Prohibited Nonessential Uses Applicable to Customers. It is unlawful for any person, firm, partnership, association, corporation, or political entity to use potable water from the district for the following nonessential uses:

(A) The washing of sidewalks, walkways, driveways, parking lots and all other hard surfaced areas by direct hosing, except as may be permitted by current regulations pertaining to urban water runoff pollution prevention as defined by the Marin County Stormwater Pollution Prevention Program and other controlling agencies.

(B) The escape of water through breaks or leaks within the consumer's plumbing or private distribution system for any substantial period of time within which such break or leak should reasonably have been discovered and corrected. It shall be presumed that a period of 48 hours after the consumer discovers such a leak or break, or receives notice from the district of such leak or break, whichever occurs first, is a reasonable time within which to correct such leak or break.

(C) Non-recycling decorative water fountains.

(D) Restrictions on Irrigation. Irrigation shall not be conducted in a manner or to an extent that allows water to run off or overspray the areas being watered. Every consumer is required to have his or her water distribution lines and facilities under control at all times to avoid water waste.

(E) Any excess water runoff flowing onto the public right-of-way at a rate of one gallon per minute or greater not caused by storm water or naturally occurring groundwater, is prohibited.

(F) Using a garden hose without a shut-off nozzle.

(G) Landscape irrigation between the hours of 9:00 a.m. and 7:00 p.m.

(H) Operating outdoor sprinkler irrigation systems delivering overhead spray more than two days within any calendar week and drip irrigation more than three days per week within any calendar week, but excluding hand-watering. For the purpose of this section, "calendar week" shall mean a period running from Monday-Sunday.

(I) The application of potable water to outdoor landscapes during and within 48 hours after measurable rainfall.

(J) Irrigating ornamental turf on public street medians.

(2) Restrictions on Reverse Osmosis Units. The installation of reverse osmosis water purifying systems not equipped with an automatic shutoff unit is prohibited.

(3) The following are prohibited for new connections:

(A) Single pass cooling systems for air conditioning or other cooling system applications unless required for health or safety reasons;

(B) Non-recirculating systems for conveyer carwash applications.

(4) Exemption From Daytime Water Prohibition. Notwithstanding anything contained in this Title 13, testing and repairing irrigation systems for the purpose of eliminating water waste is permitted during the hours of 9:00 a.m. and 7:00 p.m.

(5) Sewer cleaning/flushing should be done using recycled water when available without hauling by truck and whenever reasonably possible. (Ord. 461 §2, 2022)

13.02.021

3(C) Pool and Spa Covers. All recreational pools and spas shall have covers, subject to the variance provisions as set forth in Section 13.02.050.
(6)Drinking Water Served Upon Request Only. By January 1, 2011, eating or drinking establishments, including, but not limited to, a restaurant, hotel, café, cafeteria, bar, or other public place where food or drinks are sold, served, or offered for sale, are prohibited from providing drinking water to any person unless expressly requested.
(7)Commercial Lodging Establishments Must Provide Guests Option to Decline Daily Linen Services. By January 1, 2011, hotels, motels and other commercial lodging establishments shall provide customers the option of not having towels and linen laundered daily. Commercial lodging establishments shall prominently display notice of this option in each bathroom using clear and easily understood language.

11.32.090
No consumer shall cause or permit any water furnished to his property by the district to run to waste in any *gutter* or otherwise. The district may, after one warning, terminate the service of any consumer pursuant to Chapter 11.28 for failure to comply with the foregoing rule. Restoration of service may be conditioned upon installation of a flow restrictor on the consumer's service. Fees will be charged for the flow restrictor and installation or removal in addition to the turn-on charge provided for in Section 11.08.150. (Ord. 314 §2, 1990)

11.50.010 Private fire taps.
A "private fire tap" means a service to provide water for a private fire hydrant, fire sprinkler system or other fire protection installation. Private fire taps may be granted solely to provide water for fire protection and each private fire tap shall have an approved backflow assembly and bypass meter. A single detector check valve may be used when replacing a single detector check valve when a private fire tap upgrade is required as described in Section 11.56.015.The district's system shall extend approximately to the curb line or edge of the public right-of-way, and shall end with an insulating spool piece or kit, but shall not include the detector check valve, or above ground backflow device. All bypass piping, except the meter owned by the District, shall be the responsibility of the consumer. (Ord. 416 §3, 2010; Ord. 314 §2, 1990; Ord. 176 §1, 1978)

Item Number: 11
Attachment: 02

MARIN MUNICIPAL WATER DISTRICT

RESOLUTION NO.

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE MARIN MUNICIPAL WATER DISTRICT ADOPTING THE 2023 WATER SHORTAGE CONTINGENCY PLAN

WHEREAS, the District prepared the draft 2020 Urban Water Management Plan in accordance with the requirements and procedures set forth in the Urban Water Management Planning Act (Act), which included a Water Shortage Contingency Plan setting forth water shortage trigger levels and response actions as required under the Act (WSCP); and

WHEREAS, the District Board of Directors held a public hearing on June 15, 2021 where the Board considered the draft 2020 Urban Water Management Plan and other testimony and public comments provided at the hearing and following the public hearing the Board adopted the Marin Municipal Water District 2020 UWMP and WSCP; and

WHEREAS, based upon experience gained during the District's Water Shortage Emergency of 2021, staff reviewed the 2020 WSCP with an eye to improve the plan to achieve greater clarity and effectiveness of the WSCP and brought forth discussion to the Board of proposed revisions and incorporated feedback from the Board into an updated 2023 WSCP; and

WHEREAS, a public hearing on the updated 2023 Water Shortage Contingency Plan and implementation ordinance was noticed for the 21st day of February, 2023, by teleconference Zoom meeting; and

WHEREAS, the District Board of Directors considered the updated 2023 WSCP and proposed implementation ordinance during the public hearing held on February 21, 2023, and other testimony and public comments provided at the hearing.

NOW THEREFORE, BE IT HEREBY RESOLVED, that the Board of Directors adopts the 2023 Water Shortage Contingency Plan; and

BE IT FURTHER RESOLVED, that the Board of Directors authorizes the General Manager to file the updated 2023 WSCP with the California Department of Water Resources within 30 days of adoption as set forth in Section 10644(b) of the California Water Code.

PASSED AND ADOPTED this 21st day of February, 2023, by the following vote of the Board of Directors.

AYES:

NOES:

ABSENT:

_____
Monty Schmitt
President, Board of Directors

ATTEST:

_____
Terrie Gillen
Board Secretary

DRAFT

MARIN MUNICIPAL WATER DISTRICT

ORDINANCE NO. 462
AN ORDINANCE AMENDING CHAPTER 13.02 ENTITLED " WATER CONSERVATION AND DRY YEAR WATER USE REDUCTION PROGRAM" TO TITLE 13 OF THE MARIN MUNICIPAL WATER DISTRICT CODE ENTITLED "WATER SERVICE CONDITIONS AND WATER CONSERVATION MEASURES" ADDING PROVISIONS FOR THE IMPLEMENTATION OF THE DISTRICT'S WATER SHORTAGE CONTINGENCY PLAN

BE IT ORDAINED BY THE BOARD OF DIRECTORS OF THE MARIN MUNICIPAL WATER DISTRICT AS FOLLOWS:

SECTION 1. Purpose: The purpose of this ordinance is to provide for the implementation of the District's Water Shortage Contingency Plan adopted by the District pursuant to and in accordance with Water Code section 10632, which provides a comprehensive program of water conservation and enforcement measures to preserve the District's water supply during water shortage conditions. The water shortage stages will be enacted by declaration of the District's Board of Directors, with corresponding actions identified in the Water Shortage Contingency Plan that will significantly reduce the consumption of water, thereby preserving and extending the available water supply for the District's customers while reducing the hardship on the general public to the greatest extent possible during any periods of water supply shortage. The water conservation and enforcement measures set forth in this chapter are adopted in accordance with California Water Code sections, 350 *et seq*., 375 *et seq*., and 71640 *et seq*.

SECTION 2. Section 13.02.015 of the Marin Municipal Water District Code entitled "Declaration of Water Shortage Emergency" is hereby deleted and replaced as follows:

13.02.015 Declaration of Water Shortage Emergency
Nothing in this Chapter shall preclude the District from declaring a water shortage emergency, which it may consider and adopt in accordance with Water Code sections 350 *et seq.* and 71640 *et seq.*

SECTION 3. 13.02.030 of the Marin Municipal Water District Code entitled "Water use reduction in dry periods" is hereby deleted and is replaced as follows:

13.02.030 Water Shortage Contingency Plan (WSCP); Implementation
The District-adopted Water Shortage Contingency Plan, as amended from time to time, shall be the guide for District actions during water shortage conditions. The plan, adopted in compliance with Water Code section 10632, provides six shortage stages from least to most severe and sets forth detailed descriptions of the actions and procedures to be used to address varying degrees of water shortages. Driven by the criteria identified in the WSCP, the District General Manager will request the District Board of Directors to declare, by resolution, the appropriate water shortage stage and level of water conservation needed within the District. The water supply shortage so designated shall become effective immediately upon adoption, unless otherwise provided by resolution of the Board, and shall be authorization for the General Manager to implement the actions that correlate with each water shortage stage. As water supply conditions improve, or further deteriorate, the General Manager will return to the Board to revise the appropriate stage of

response. It shall not be necessary to implement any stage prior to another; the stages may be implemented in any reasonable order as deemed necessary and appropriate by the Board in light of existing water supply conditions.

SECTION 4. 13.02.031 of the Marin Municipal Water District Code entitled "Public Outreach of Water Shortage Stages" is hereby added to read as follows:

13.02.031 Public Outreach of Water Shortage Stages

The WSCP includes public communications strategies to be utilized with each water shortage stage. With the Board adoption of each new stage under the WSCP, the District will implement communication of each water shortage stage consistent with the guidance of the WSCP, including use of the District's webpage, social media and news media, as appropriate to assure that District customers are made aware of each newly adopted stage and associated actions.

SECTION 5. 13.02.032 of the Marin Municipal Water District Code entitled "Water Use Prohibitions with Associated Water Shortage Stages" is hereby added to read as follows:

13.02.032 Water Use Prohibitions with Associated Water Shortage Stages

Beginning with water shortage stage three, the WSCP identifies additional, or increasingly strict, customer water use prohibitions to augment the District's normal year water conservation program rules set forth in sections 13.02.020 and 13.02.021. These enhanced water use prohibitions will be implemented and enforced by the District in correspondence with the declaration of each water shortage stage. The new prohibitions will apply to all persons, customers and properties within the District, subject to the enforcement procedures set forth at District Code section 13.02.060 and the variance process set forth at District Code section 13.02.050.

SECTION 6. Section 13.02.050 entitled "Variances" is hereby deleted and replaced to read as follows:

13.02.050 Variances

The District may grant variances for use of water otherwise prohibited by this chapter if it is found and determined that:

(1) Failure to do so would cause an unnecessary and undue hardship on applicant or the public, including but not limited to, adverse economic impacts;

(2) Failure to do so would cause an emergency condition affecting the health, sanitation, fire protection or safety of the applicant or the public; or

(3) Customer is able and agrees to provide an alternative means of providing comparable water conservation.

Any request for a variance shall be submitted to the District in a writing providing sufficient detail regarding the request and the reasons therefore. After consideration of the variance request, a written decision shall be provided to the customer rejecting, partially approving or approving the variance request. If the customer disagrees with the initial determination, the customer may avail themselves of the appeal process set forth in section 13.02.090.

SECTION 7. Findings of Necessity: The Board of Directors, after considering all of the information and testimony presented at its February 21, 2023 meeting regarding this ordinance, finds as follows:

A. Article X Section 2 of the California Constitution and California Water Code section 100 provide that the general welfare requires that water resources be put to beneficial use to the fullest extent of which they are capable and that the waste and unreasonable use of water be prevented, and that conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and the public welfare.

B. California Water Code section 375 authorizes water suppliers to adopt and enforce a comprehensive water conservation program to reduce water consumption and conserve supplies.

C. California Water Code section 71640 authorizes water suppliers to undertake water use restrictions during any emergency caused by drought, or other threatened or existing water shortage, and to prohibit the waste of water or the use of water for purposes other than those determined necessary, and to prohibit the use of water during such periods which it finds to be nonessential. California Water Code section 716401 further authorizes water suppliers to prescribe and define the restrictions, prohibitions, and exclusions referenced in Water Code section 71460.

D. The Marin Municipal Water District's Board of Directors recognizes continued long-term challenges to the region and the state. The District's water supply currently remains limited to water captured in its seven reservoirs; water transported from the Russian River via the North Marin aqueduct; and recycled water produced at the Las Gallinas Valley Sanitary District Plant (for a variety of non-potable purposes). Although options to increase the District's water supply are being evaluated, the implementation of any preferred alternative will not be immediate.

E. Based upon rainfall patterns for the District, very little rainfall occurs from May to October each year. In recent years, the overall summer peak-period has found water use averages about twice winter use. Outdoor water use is more discretionary than interior water use. Some reductions in water use can be achieved by reduction in the demand for water for exterior uses.

F. Due to climate change, weather patterns in the region and the state have become less predictable and more susceptible to extremes, and therefore the District finds and determines that that it is necessary and appropriate to adopt, implement and enforce a water shortage contingency response plan in order to prudently manage and respond to water supply shortages to ensure that there is sufficient water for human consumption, sanitation and fire protection during such periods.

G. California Water Code section 350, et seq. authorizes water suppliers to declare a water shortage emergency when it finds and determines that the agency will not be able to or cannot satisfy the ordinary demands and requirements or water consumers without depleting its water supply to the extent that there would be insufficient water for human consumption, sanitation and fire protection.

H. The District Board of Directors is authorized and hereby finds and determines that it is necessary to prescribe and define restrictions, prohibitions, and exclusions for the use of water during a threatened or existing water supply shortage and to adopt and enforce a water shortage contingency plan to (i) prohibit the waste of District water or restrict the use of District water during such periods, (ii) prohibit the use of District water during such periods

for specific purposes that the District may find are nonessential, and (iii) reduce and restrict the quantity of water used within the District during such periods.

I. The California Urban Water Management Planning Act, Water Code section 10610, et seq. (the Act) mandates that every urban supplier of water providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually, prepare and adopt, in accordance with prescribed requirements, a Water Shortage Contingency Plan (WSCP) as part of its Urban Water Management Plan and in accordance with the Act, the District adopted its WSCP, a detailed plan for how the District intends to act or respond to water shortage conditions on June 15, 2021 and adopted a revised WSCP on February 21, 2023.

J. In accordance with applicable law, the District held a noticed public hearing on February 21, 2023 at 6:30 p.m., or shortly thereafter, virtually in accordance with AB361 and District Resolution No. _____, where the Board of Directors received and considered oral and written testimony regarding the adoption of the District's updated WSCP and Ordinance No. 462.

K. The Board finds this ordinance is exempt from the provisions of the California Environmental Quality Act (CEQA) in accordance with Section 10652 of the Water Code.

SECTION 8. Severability: If any section, subsection, sentence, clause, phrase, portion or part of this ordinance is for any reason held to be invalid or unconstitutional by any court of competent jurisdiction, such section shall not affect the validity of the remaining portions of this code. The Board of Directors hereby declares that it would have adopted this ordinance and each section, subsection, sentence, clause, phrase, part or portion thereof, irrespective of the fact that any one or more sections subsections, clauses, phrases, parts or portions be declared invalid or unconstitutional.

SECTION 9. Effective Date: Pursuant to Water Code section 376, this ordinance shall be effective on the day of its adoption. Within 10 days of adoption, this ordinance, or a summary hereof, shall be published in the Marin Independent Journal pursuant to Section 6061 of the Government Code.

PASSED AND ADOPTED this 21th day of February, 2023 by the following vote of the Board:

AYES:

NOES:

ABSENT:

_____
President, Board of Directors

ATTEST:

_____
Secretary, Board of Directors

Water Waste Prohibitions in Effect at All Times

13.02.020 Water waste prohibitions.

No customer of the district shall make, cause, use or permit the use of potable water from the district for residential, commercial, industrial, agricultural, governmental or any other purpose in a manner contrary to any provision of this section.

(1) Prohibited Nonessential Uses Applicable to Customers. It is unlawful for any person, firm, partnership, association, corporation, or political entity to use potable water from the district for the following nonessential uses:

(A) The washing of sidewalks, walkways, driveways, parking lots and all other hard surfaced areas by direct hosing, except as may be permitted by current regulations pertaining to urban water runoff pollution prevention as defined by the Marin County Stormwater Pollution Prevention Program and other controlling agencies.

(B) The escape of water through breaks or leaks within the consumer's plumbing or private distribution system for any substantial period of time within which such break or leak should reasonably have been discovered and corrected. It shall be presumed that a period of 48 hours after the consumer discovers such a leak or break, or receives notice from the district of such leak or break, whichever occurs first, is a reasonable time within which to correct such leak or break.

(C) Non-recycling decorative water fountains.

(D) Restrictions on Irrigation. Irrigation shall not be conducted in a manner or to an extent that allows water to run off or overspray the areas being watered. Every consumer is required to have his or her water distribution lines and facilities under control at all times to avoid water waste.

(E) Any excess water runoff flowing onto the public right-of-way at a rate of one gallon per minute or greater not caused by storm water or naturally occurring groundwater, is prohibited.

(F) Using a garden hose without a shut-off nozzle.

(G) Landscape irrigation between the hours of 9:00 a.m. and 7:00 p.m.

(H) Operating outdoor sprinkler irrigation systems delivering overhead spray more than two days within any calendar week and drip irrigation more than three days per week within any calendar week, but excluding hand-watering. For the purpose of this section, "calendar week" shall mean a period running from Monday-Sunday.

(I) The application of potable water to outdoor landscapes during and within 48 hours after measurable rainfall.

(J) Irrigating ornamental turf on public street medians.

(2) Restrictions on Reverse Osmosis Units. The installation of reverse osmosis water purifying systems not equipped with an automatic shutoff unit is prohibited.

(3) The following are prohibited for new connections:

(A) Single pass cooling systems for air conditioning or other cooling system applications unless required for health or safety reasons;

(B) Non-recirculating systems for conveyer carwash applications.

(4) Exemption From Daytime Water Prohibition. Notwithstanding anything contained in this Title 13, testing and repairing irrigation systems for the purpose of eliminating water waste is permitted during the hours of 9:00 a.m. and 7:00 p.m.
(5) Sewer cleaning/flushing should be done using recycled water when available without hauling by truck and whenever reasonably possible. (Ord. 461 §2, 2022)

13.02.021
3(C) Pool and Spa Covers. All recreational pools and spas shall have covers, subject to the variance provisions as set forth in Section 13.02.050.
(6)Drinking Water Served Upon Request Only. By January 1, 2011, eating or drinking establishments, including, but not limited to, a restaurant, hotel, café, cafeteria, bar, or other public place where food or drinks are sold, served, or offered for sale, are prohibited from providing drinking water to any person unless expressly requested.
(7)Commercial Lodging Establishments Must Provide Guests Option to Decline Daily Linen Services. By January 1, 2011, hotels, motels and other commercial lodging establishments shall provide customers the option of not having towels and linen laundered daily. Commercial lodging establishments shall prominently display notice of this option in each bathroom using clear and easily understood language.

11.32.090
No consumer shall cause or permit any water furnished to his property by the district to run to waste in any *gutter* or otherwise. The district may, after one warning, terminate the service of any consumer pursuant to Chapter 11.28 for failure to comply with the foregoing rule. Restoration of service may be conditioned upon installation of a flow restrictor on the consumer's service. Fees will be charged for the flow restrictor and installation or removal in addition to the turn-on charge provided for in Section 11.08.150. (Ord. 314 §2, 1990)

11.50.010 Private fire taps.
A "private fire tap" means a service to provide water for a private fire hydrant, fire sprinkler system or other fire protection installation. Private fire taps may be granted solely to provide water for fire protection and each private fire tap shall have an approved backflow assembly and bypass meter. A single detector check valve may be used when replacing a single detector check valve when a private fire tap upgrade is required as described in Section 11.56.015.The district's system shall extend approximately to the curb line or edge of the public right-of-way, and shall end with an insulating spool piece or kit, but shall not include the detector check valve, or above ground backflow device. All bypass piping, except the meter owned by the District, shall be the responsibility of the consumer. (Ord. 416 §3, 2010; Ord. 314 §2, 1990; Ord. 176 §1, 1978)

Item Number: 12
Meeting Date: 02-21-2023
Meeting: Board of Directors

Informational Item

TO: Board of Directors

FROM: Bret Uppendahl, Finance Director

THROUGH: Ben Horenstein, General Manager

DIVISION NAME: Administrative Services Division

ITEM: Rate Setting Process Update

SUMMARY
The District provides high quality water to over 191,000 residents in a 147 square mile area that includes most cities, towns and unincorporated areas within Marin County. Novato and West Marin are located outside of the District's service area.

As a municipal water district that relies on water rates to fund ongoing operations and capital improvements, Marin Municipal Water District (District) is subject to the procedural requirements of Proposition 218 in order to adopt new or increased rates. These procedural requirements include, but are not limited to, an analysis of the cost of providing water service and a public hearing to consider the proposed rate adjustment.

DISCUSSION
In addition to conducting a public hearing to comply with Proposition 218 requirements, the District is committed to meaningful public engagement throughout the entire rate setting process. This includes Board meetings, community workshops, news releases, social media, direct mailers, and website updates.

Since December 2022, the District has provided six updates to the Board, including a special meeting on December 12th, detailed updates at Operations Committee meetings and Finance and Administration Committee meetings, and presentations during regularly scheduled Board meetings on January 3rd and February 7th. The District also recently completed a series of four community workshops, three of which were in-person at different venues within the district, and one of which was a virtual meeting. Staff will be presenting a summary of the feedback received during these workshops and an outline of the next steps in the process.

The District has also created a dedicated webpage for customers to find all rate-setting information in one place. The website includes an overview of the process, FAQ's, links to previous presentations and information on current rates. The website can be accessed through links from the District's homepage or directly at www.marinwater.org/2023ratesetting .

Finally, staff will be presenting an update on the process for incorporating drought rates into the proposed rate structure.

FISCAL IMPACT
None

ATTACHMENT(S)
None

Item Number: 13
Meeting Date: 02-21-2023
Meeting: Board of Directors

Informational Item

TO: Board of Directors

FROM: Terrie Gillen, Board Secretary

THROUGH: Ben Horenstein, General Manager

DIVISION NAME: Communications & Public Affairs Department

ITEM: Future Meeting Schedule and Agenda Items

SUMMARY
Review of the upcoming Board of Directors and Committee meetings

DISCUSSION

Meeting Schedule
Below are the upcoming meetings of the Board of Directors and/or Committees:

Internal Meetings

- Thursday, February 23, 2023
  Finance & Administration Committee/
  Board of Directors (Finance & Administration) Meeting
  9:30 a.m.

- Tuesday, February 28, 2023
  Board of Directors' Special Board Meeting
  Strategic Water Supply Assessment
  5:00 p.m.

- Tuesday, March 7, 2023
  Board of Directors' Regular Bi-Monthly Meeting
  6:30 p.m.

External Meetings

- Monday, February 27, 2023
  North Bay Water Reuse Authority
  9:30 a.m.

- Monday, March 3, 2023
  North Bay Watershed Association
  9:30 a.m.

FISCAL IMPACT
None

ATTACHMENT(S)
None