



## NORTH MARIN WATER DISTRICT

**NORTH MARIN WATER DISTRICT**  
**AGENDA - REGULAR MEETING**  
 October 3, 2023 – 4:00 p.m.  
 Location: 100 Wood Hollow Dr., Suite 300  
 Novato, California

Information about and copies of supporting materials on agenda items are available for public review at the District Office, at the Reception Desk, by calling the District Secretary at (415) 897-4133 or on our website at nmwd.com. A fee may be charged for copies. District facilities and meetings comply with the Americans with Disabilities Act. If special accommodations are needed, please contact the District Secretary as soon as possible, but at least two days prior to the meeting.

Est. Time	Item	Subject
4:00 p.m.		<b>CALL TO ORDER</b>
	1.	<b>APPROVE MINUTES FROM REGULAR MEETING</b> , September 19, 2023
	2.	<b>GENERAL MANAGER'S REPORT</b>
	3.	<b>OPEN TIME: (Please observe a three-minute time limit)</b>  This section of the agenda is provided so that the public may express comments on any issues not listed on the agenda that are of interest to the public and within the jurisdiction of the North Marin Water District. When comments are made about matters not on the agenda, Board members can ask questions for clarification, respond to statements or questions from members of the public, refer a matter to staff, or direct staff to place a matter of business on a future agenda. The public may also express comments on agenda items at the time of Board consideration.
	4.	<b>STAFF/DIRECTORS REPORTS</b>
		<b>CONSENT CALENDAR</b>  The General Manager has reviewed the following items. To his knowledge, there is no opposition to the action. The items can be acted on in one consolidated motion as recommended or may be removed from the Consent Calendar and separately considered at the request of any person.
	5.	<b>Consent – Approve:</b> Auditor-Controller's Statement of Investment Policy
	6.	<b>Consent - Approve:</b> Bahia Hydropneumatic System Replacement Project – Design Services Contract Amendment
		<b>ACTION CALENDAR</b>
	7.	<b>Approve:</b> Authorize the General Manager to Send a Comment Letter to State Water Resources Control Board regarding Proposed Rulemaking on Water Conservation
	8.	<b>Approve:</b> First Amendment to the 1985 Agreement Between North Marin Water District and Marin County Flood Control and Water Conservation District on Stafford Dam
		<b>INFORMATION ITEMS</b>
	9.	FY 2022/23 End of Year Progress Report – Engineering
	10.	<b>MISCELLANEOUS</b> Disbursements - Dated September 21, 2023 Disbursements – Dated September 28, 2023 Auditor-Controller's Monthly Report of Investments for July 2023 NOAA Seasonal Outlook Drought Probability NOAA Three-Month Outlook Precipitation Probability

All times are approximate and for reference only.

The Board of Directors may consider an item at a different time than set forth herein.

<b>Est. Time</b>	<b>Item</b>	<b>Subject</b>
		<u>News Articles:</u> Marin IJ – Wary of Weather: Bay Area forecasts show El Nino conditions, increasing global temperatures and the possibility of a wetter-than-average season – WET WINTER? Marin IJ – Newsom mulls water ban on some decorative lawns - PERMANENT PROHIBITION
5:30 p.m.	11.	<b><i>ADJOURNMENT</i></b>

1

1 **DRAFT**  
2 **NORTH MARIN WATER DISTRICT**  
3 **MINUTES OF REGULAR MEETING**  
4 **OF THE BOARD OF DIRECTORS**  
5 **September 19, 2023**

6 **CALL TO ORDER**

7 President Fraites called the regular meeting of the Board of Directors of North Marin Water  
8 District to order at 4:00 p.m. at the District Headquarters and the agenda was accepted as  
9 presented. Present were Directors Jack Baker, Ken Eichstaedt, Rick Fraites, Michael Joly, and  
10 Stephen Petterle. Also present were General Manager Tony Williams, District Secretary Eileen  
11 Mulliner, and Auditor-Controller Julie Blue.

12 District employees Robert Clark, Operations and Maintenance Superintendent, Ryan Grisso,  
13 Water Conservation Coordinator, Pablo Ramudo, Water Quality Supervisor, and Avram Pearlman,  
14 Associate Engineer, were also in attendance.

15 **MINUTES**

16 On motion of Director Joly, seconded by Director Baker, the Board approved the minutes  
17 from the August 15, 2023 regular meeting as presented by the following vote:

18 AYES: Director(s) Baker, Eichstaedt, Fraites, Joly and Petterle

19 NOES: None

20 ABSENT: None

21 ABSTAIN: None

22 On motion of Director Petterle, seconded by Director Baker, the Board approved the minutes  
23 from the Sept 12, 2023 special meeting as presented by the following vote:

24 AYES: Director(s) Baker, Eichstaedt, Fraites, Joly and Petterle

25 NOES: None

26 ABSENT: None

27 ABSTAIN: None

28 **GENERAL MANAGER'S REPORT**

29 Tony Williams gave the Board a brief update regarding the Potter Valley project, saying that  
30 the "New Eel-Russian Facility" proponents submitted a proposal at the end of July to PGE to take  
31 over some of the facilities. He also said that the Russian River Planning Group will meet in early  
32 October and will have more to report after that.

33 Mr. Williams told that Board that the West Marin Services Ad-hoc Committee met on August  
34 18<sup>th</sup> in Oceana Marin and that they met with some of the residents while there. Robert Clark also  
35 gave a tour of our Oceana Marin facilities. The Committee also visited the former Coast Guard  
36 housing property in Pt Reyes Station. The next meeting will be in mid-October and Mr. Williams will  
37 report back after that.

1 Mr. Williams has asked Ben Horenstein of Marin Water will give a presentation to the Board  
2 on their water supply plans at an upcoming Board meeting.

3 Mr. Williams noted that there was a story in the Marin IJ regarding proposed regulations from  
4 the State Water Board, and that it mentioned that water conservation is permanent. He and Ryan  
5 Grisso will likely provide a comment letter to the Water Board.

6 Director Baker asked about the make-up of residents in Oceana Marin, wanting to know how  
7 many people live in Oceana Marin full time versus part time or renters. Mr. Williams said they would  
8 look into that and report back.

9 **OPEN TIME**

10 President Fraites asked if anyone in the audience wished to bring up an item not on the  
11 agenda and there was no response.

12 **STAFF/DIRECTORS REPORTS**

13 President Fraites asked if staff or Directors wished to bring up an item not on the agenda.

14 Pablo Ramudo told the Board that there was an issue with the intake structure at Stafford  
15 Lake. He said there was a problem with the hydraulic lines that operate the intake gates, resulting in  
16 some water from the bottom of the lake entering the plant. This resulted in natural ammonia levels  
17 rising and not a concern but that there was some chlorine odor detected and staff had received a  
18 few calls about it, but again it was not a concern. We have been working on a fix for the hydraulic  
19 lines, a contractor did come out and repair the hose. Director Baker asked if there was a health  
20 issue with this situation and Mr. Ramudo said no.

21 Director Fraites mentioned that the Board should be doing the General Manager's  
22 evaluation soon.

23 **Consent Calendar**

24 Director Joly asked to have Item #8, Bid Advertisement for Crest Pump Station Project,  
25 taken off the Consent Calendar and moved to the Action Calendar. The request was approved by  
26 the other Directors.

27 On the motion of Director Joly, and seconded by Director Baker, the Board approved the  
28 following item two items on the consent calendar by the following vote:

29 AYES: Director(s) Baker, Eichstaedt, Fraites, Joly and Petterle

30 NOES: None

31 ABSENT: None

32 ABSTAIN: None

33 **TEXT FOR FALL 2023 NOVATO "WATERLINE", ISSUE 51**

34 Draft text for the Fall 2023 Novato "Waterline" was presented to the Board for review. Issue

1 51 included information the General Manager’s message regarding the Redwood Blvd. Landslide  
2 and local and regional water supply updates. Other information in this issue was advertisement for  
3 the customer survey, water conservation program offerings, Watersmart AMI portal access, Low-  
4 Income Assistant Program (LIRA), and the Cash for Grass and mule Rebate programs.

5 **CONSTRUCTION MANAGEMENT SERVICES FOR CREST PUMP STATION WITH GHD, INC.**

6 In February 2023, staff solicited proposals from three qualified firms to provide bidding  
7 support and construction management services the for the construction phase of the Crest Pump  
8 Station. Two of the firms did not provide proposals, however GHD, Inc. did. Although they were the  
9 only firm to submit a proposal, they have a history of providing high quality services to the District.  
10 Engineering will proceed with an agreement for bidding support and Construction Management  
11 Services with GHD, Inc. for the Crest Pump Station project.

12 **~~BID ADVERTISEMENT FOR CREST PUMP STATION PROJECT – MOVED TO ACTION~~**

13 **CALENDAR**

14 **ACTION CALENDAR**

15 **BID ADVERTISEMENT FOR CREST PUMP STATION PROJECT**

16 Director Joly wanted to get an overview of the pump stations in the Novato system and he  
17 asked how many we have and if we have looked into possibly reducing the number of them over the  
18 next 20-30 years. Robert Clark replied that we have 25 pump stations and several hydro-pneumatic  
19 systems as well as 6 pump stations in West Marin. Mr. Clark said that we really can’t reduce the  
20 number of pump stations and that the system is well designed with the fewest number that we can  
21 have. He said that pumps within each station are typically replaced approximately every 10 years.  
22 Tony Williams reminded the Board there was a significant leak at the School Rd pump station as  
23 reported by the then Construction Superintendent and overall it is located in a less than ideal  
24 location and needs to be relocated, which is what the Crest Pump Station will do. Mr. Williams also  
25 noted the project estimate was within budget. Director Joly asked about future development and in  
26 particular the San Marin Pump Station. Avram Pearlman, Associate Engineer and engineer for the  
27 project, addressed the Board and said he has worked with the District’s modeling consultant to  
28 model if that zone could handle additional demand in light of the former Fireman’s Fund site likely to  
29 be replaced with a multi-use development which includes significant additional housing. The San  
30 Marin pump station will need to be improved to handle the future development and a new  
31 transmission main will be needed from San Mateo Tank to San Marin Drive. The pump station  
32 improvements will most likely be put on the developer to pay for upsizing the pumps but no new  
33 pump station would be needed. Director Baker asked if there was any way to know when Crest  
34 Pump Station will be completed and Mr. Pearlman said it will be approximately September 2024.

35 Avram Pearlman left the meeting.

1 **CONSULTING SERVICES AGREEMENT CONTRACT AMENDMENT FOR A COMPENSATION**  
2 **STUDY WITH KOFF & ASSOCIATES**

3 The Board approved the agreement with Koff & Associates in March of 2023 to conduct a  
4 compensation study for North Marin Water District in support the Side Letter agreement to the 2018-  
5 2023 NMWD Employee Association Memorandum of Understanding. To date Koff & Associates  
6 has made substantial progress on the study.

7 Tony Williams said that after review of the draft study, the Employee Association provided  
8 feedback on a majority of positions that were looked analyzed and have requested additional  
9 analysis. Mr. Williams, with consensus from the negotiations team, agrees with the additional  
10 analysis and asked Koff & Associates to provide a proposal for additional work. The cost includes a  
11 contingency amount to cover any unanticipated work or additional analysis needed to finalize the  
12 study to help with timely completion and to avoid prolonged negotiations.

13 Director Joly asked if the Employee Association is satisfied with 34 positions being looked at  
14 as opposed to every single one and Mr. Williams said he believed they were. He noted that the final  
15 salary survey will also serve to complete a salary schedule for the District, which is also included in  
16 Koff & Associates scope.

17 On the motion of Director Joly, and seconded by Director Baker, the Board approved by the  
18 following vote:

19 AYES: Director(s) Baker, Eichstaedt, Fraites, Joly and Petterle

20 NOES: None

21 ABSENT: None

22 ABSTAIN: None

23 **LEASE AGREEMENT WITH INDIAN VALLEY GOLF CLUB – FUTURE AMENDMENT FOR**  
24 **LEASE TERM**

25 Director Petterle recused himself from discussing and voting on this item as he is a member  
26 of the golf club and would be unable to vote.

27 Tony Williams said that Indian Valley Golf Club (IVGC) would like to do some improvements  
28 assuming the District wants to extend the lease after its expiration in 2030 and he said from staff's  
29 perspective there is no problem with issuing a Letter of Intent to give them piece of mind that we will  
30 want to continue. He noted that actual negotiations and a formal lease amendment is not an  
31 immediate priority and that the District should evaluate the lease, including certain provisions (total  
32 of five listed in the Board memorandum) at a time closer to the expiration.

33 Director Baker asked if there have been any big issues over the years, other than the areas  
34 noted in the staff report. Mr. Williams said that golf balls in the lake have been an ongoing issue but  
35 understands the benefit of the golf shop allowing people to test out clubs by hitting balls which  
36 happen to be directed toward the lake. Pablo Ramudo said there are provisions in the lease

1 regarding chemical use on the course itself and this hasn't been an issue. Robert Clark said that  
2 some community activities as well as County Parks have asked about having a path that goes  
3 around the lake. Director Fraites said that he doesn't like seeing the golf balls but said he doesn't  
4 see where you can put a driving range to avoid having them going in the lake. Director Joly asked if  
5 the road was IVGC's responsibility to maintain and Mr. Williams said yes per the lease. Director Joly  
6 also asked if there is any liability to the District, especially at the intersection with Novato Boulevard  
7 and the answer was yes likely since the District is the property owner. He also asked if District  
8 projects or operations that impact the access road has impeded on the golf club's business and the  
9 answer was yes, at times, but we have worked it out with them through pre-planning and  
10 communications. Mr. Williams was asked why 30 years was chosen as the term of the lease and he  
11 said he had he chosen that time frame but was open to other terms based on the Board's input.  
12 Director Eichstaedt asked if our legal counsel has reviewed the lease and Mr. Williams said that  
13 they have not reviewed it but will when it is time to formally do an amendment and that it is why a  
14 letter of intent is being used at this point. Director Eichstaedt also asked when the last time legal  
15 reviewed the lease and Mr. Williams said it was 1988 when it was executed.

16 On the motion of Director Joly, and seconded by Director Eichstaedt, the Board approved by  
17 the following vote:

18 AYES: Director(s) Baker, Eichstaedt, Fraites and Joly

19 NOES: None

20 ABSENT: None

21 ABSTAIN: Director Petterle

## 22 **LETTERS OF SUPPORT FOR WATER SYSTEMS PFAS CERCLA LIABILITY PROTECTIONS**

23 The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) is  
24 designed to remediate contaminated sites and hold parties that caused the contamination financially  
25 responsible for cleanup through its polluter-pays model. The Association of California Water  
26 Agencies (ACWA) strongly supports the polluter-pays principle. However, under current federal  
27 efforts ACWA member agencies and their ratepayers will be facing a community-pays outcome that  
28 unfairly shifts the clean-up and liability costs onto ACWA member agencies and the public they  
29 serve. The North Marin Water District is a member of ACWA, Region 1. ACWA is urging its  
30 member agencies to send letters to Senators Diana Feinstein and Alex Padilla to build support for  
31 PFAS liability protections for water and wastewater agencies under CERCLA. Without liability  
32 protections, water systems could be held responsible for the cleanup of sites contaminated with  
33 PFAS.

34 Tony Williams expressed to the Board that it is prudent to follow ACWA's request to send  
35 these letters in light of PFAS issues and note that we will have to start testing for these chemicals.



1 The former Hamilton Air Force Base is on the list of CERCLA sites and could potentially have PFAS  
2 contamination.

3 On the motion of Director Joly, and seconded by Director Eichstaedt, the Board approved by  
4 the following vote:

5 AYES: Director(s) Baker, Eichstaedt, Fraités, Joly and Petterle

6 NOES: None

7 ABSENT: None

8 ABSTAIN: None

9 **INFORMATION ITEMS**

10 **PRELIMINARY FY 22/23 FINANCIAL STATEMENT**

11 Julie Blue gave an overview of the Preliminary FY 22/23 Financial Statement to the Board.  
12 She said we recently completed the fieldwork for the financial statement audit which was the first in-  
13 person audit in 3 years. She added that some adjustments may be made prior to finalizing the FY  
14 22/23 financial statement. She noted that operating revenue came in at 94% of the budget while the  
15 operating expenses came in at 88% of budget. She added that capital expenditures were \$9.8M  
16 which was 52% of the Capital Improvements Projects budget. She noted that the Administration  
17 and Lab Building Upgrade project was a significant portion of the CIP. The Novato service area's  
18 net income was \$4.4M which included drought surcharges of about \$400,000. Connection fees  
19 collected were approximately \$440,000 over the fiscal year. She also said that 188 mg of recycled  
20 water was consumed and overall there was a loss of \$126,000 in revenue for the fiscal year for  
21 recycled water. West Marin's consumption was 50.9 mg and the system showed a net loss of  
22 \$41,000. She said that Oceana Marin has 235 active accounts with over \$300,000 in operating  
23 revenue and a net loss of \$63,000.

24 Julie told the Board that the final audited financial statement will be presented at an  
25 upcoming board meeting. Director Joly asked if the number of recycled water customers was at the  
26 maximum possible. Tony Williams answered that there will be a few more new customers but there  
27 are limitations due to where the recycled water pipelines are located. There is a potential for some  
28 additional customers in the Hamilton area as the recycled water pipeline in that area is being  
29 extended next to the Homeward Bound project. The Hamilton shopping area is a potential future  
30 customer because of this extension.

31 **POST-DROUGHT CONDITIONS AND FUTURE WATER MANAGEMENT**

32 Tony Williams told the Board that in June 2022, Directors Petterle and Grossi were identified  
33 to serve on the Drought Ad-hoc Committee. After Director Grossi's passing, Director Joly joined the  
34 committee in his place. Mr. Williams said the committee met several times since June 2022. He  
35 said that now that the drought is over it is time to sunset the committee. He is recommending a new

1 Ad-hoc Committee for Water Management be formed. The Board identified Directors Petterle and  
2 Joly to be on it. Director Fraites stated Directors Petterle and Joly will serve on the newly formed  
3 Water Management Ad-hoc Committee.

4 **POST DROUGHT CUSTOMER SURVEY**

5 Ryan Grisso addressed the Board noting that as we have come out of a drought that now is  
6 the time for customer education which was a recurring theme with the Drought Ad-hoc Committee.  
7 He said he is working with Kiosk to create a post-drought customer survey, which is included with  
8 this item. He said he is working on establishing a baseline on what we communicate to them and  
9 how we communicate to them. Director Petterle said he liked the survey idea but would be  
10 interested in another question to be on it: to ask customers what their annual usage is. Ryan said  
11 they can add this to the survey. He said the survey will be advertised in the Novato Waterline for the  
12 month of October. Director Eichstaedt asked if this will go to the West Marin Waterline as well.  
13 Ryan said it is currently Novato-based because the District doesn't do a Fall Newsletter for West  
14 Marin but it can go to West Marin as well since it will actually reside on the website. He said he feels  
15 that this is a good way to keep West Marin in the loop, and will also explore including it in the Spring  
16 Waterline for West Marin. Director Petterle said the survey should not go to Oceana Marin since we  
17 don't provide water service there.

18 **FY 2022/23 END OF YEAR PROGRESS REPORT - WATER CONSERVATION AND PUBLIC**  
19 **COMMUNICATIONS**

20 Ryan Grisso gave a brief overview of the Water Conservation and Public Communications  
21 End of Year Progress Report to the Board. He said that there has been a slight decline in  
22 conservation participation but we continue to offer programs. He also said that we are looking to  
23 possibly revamp some of the incentives. Ryan said that we are continuing with our communication  
24 program and social media updates. He said the website is ADA accessible and that Kiosk, Inc., our  
25 communications consultant, monitors the website for this compliance. Mr. Grisso noted that we send  
26 out the Waterline newsletter twice a year to Novato residents and once a year to West Marin. He  
27 stated that a social media report is produced each month that is included in the Board agenda  
28 packets. Tony Williams mentioned that the Stafford Dam/Lake is now a stand-alone page on the  
29 website.

30 Ryan Grisso left the meeting.

31 **FY 2022/23 END OF YEAR PROGRESS REPORT - WATER QUALITY**

32 Pablo Ramudo gave an overview of the Water Quality End of Year Progress Report to the  
33 Board. He said that there are fewer nutrients going into the lake. The lake has had algae but no  
34 large blooms of blue green algae which cause issues. This year's algae was half of what it was last

1 year. He said that at the Stafford Treatment Plant they were able to remove the TOCs which results  
2 in less disinfection byproducts.

3 Pablo said that there has been a great deal of improvement for the Pt. Reyes system due to  
4 Gallagher Well No. 2. There has been a lot of fresh water coming in and less salt water and that the  
5 bromide level has been very low. We were able to turn off Gallagher Well No. 1 in June. He noted  
6 there has been no salts in the wells, and no iron in Well No. 2 and very low iron in No. 1. He also  
7 mentioned that the Deer Island recycled water facility was not run this year. Director Eichstaedt  
8 asked how many complaints or comments have we received in West Marin and Pablo said he has  
9 not heard of any complaints and that we have received a few positive comments. Mr. Ramudo gave  
10 a PowerPoint presentation that summarizes new and upcoming regulations, including the Lead and  
11 Copper Rule Revisions (LCRR), PFAS, new contaminants, microplastics, and changes to laboratory  
12 operations and requirements. He said the inventory of service lines will be completed soon as part of  
13 the LCRR. Pablo also noted that we performed some monitoring of PFAS in 2014 and 2015 and  
14 there was no detection. Monitoring will be done again in 2024 and new methods will be used to  
15 perform the tests due to new regulations which have much lower detection levels.

16 **MISCELLANEOUS**

17 The Board received the following miscellaneous items: Disbursements dated August 17,  
18 August 24, August 31, September 7, and September 14, 2023, Monthly Progress Report, AR  
19 Coalition AB 30 Support Letter, AWWA Utility Advisory – Letter to U. S. President Biden about  
20 PFAS, and U.S. Seasonal Drought Outlook – August 31, 2023.

21 The Board also received the following news articles: Marin IJ – Marin Municipal set to start  
22 study of new supply options – DROUGHT RESPONSE, Marin IJ – Water suppliers in Marin keep  
23 eye on talks for dam – NORTH COAST, Marin IJ – Utility to convert dormant tunnel to water storage  
24 – MMWD, Marin IJ – Plan looks to Sonoma for getting more water – MARIN MUNICIPAL, Marin IJ –  
25 Increase sought in wager savings – STATE REGULATIONS, Marin IJ – Transition to smart meters  
26 will face delay – MMWD, Politico – Keep off the grass, WaterNews Network – New California law  
27 taps science to improve water management, and CalTrout News – Dam Removal on the Eel is  
28 Closer Than Ever.

29 The Board also received the NMWD Web and Social Media Report –August 2023.

30 **ADJOURNMENT**

31 President Fraites adjourned the meeting at 6:02 p.m.

32 Submitted by

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34  
35 Eileen Mulliner  
36 District Secretary  
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**MEMORANDUM**

To: Board of Director

Date: October 3, 2023

From: Julie Blue, Auditor-Controller *JB*

Subject: Approve Auditor-Controller's Statement of Investment Policy

\\nrmwdsrv1\administration\acl\word\invest\23\policy memo 2023.docx**RECOMMENDED ACTION:** Approve the Investment Policy as Presented.**FINANCIAL IMPACT:** None

Following is the District's Statement of Investment Policy which is presented to the Board annually for review. There are no changes in the Investment Policy from the version approved by the Board last year.

***NORTH MARIN WATER DISTRICT STATEMENT OF INVESTMENT POLICY***

- 1) Investment of sinking fund or reserve money of the North Marin Water District shall be made in securities in which North Marin Water District is legally empowered to invest such funds in accordance with Section 53601 of the Government Code, taking into consideration the probable income as well as the probable safety of said funds, exercising the judgment and care, under the circumstances then prevailing, which individuals of prudence, discretion and intelligence exercise in the management of their own affairs, not in regard to speculation, but in regard to the permanent disposition of said funds.
- 2) As far as possible, all money shall be deposited for safekeeping in financial institutions insured by the Federal Deposit Insurance Corporation or may be invested as provided in Section 53635 of the Government Code, pertaining to local agency pooled money investments.
- 3) Money may be invested in the Local Agency Investment Fund in accordance with Section 16429.1 of the Government Code.
- 4) A minimum of 20% of the District's investment portfolio shall remain liquid (i.e., in demand deposit accounts or equivalent) at all times. In addition, the weighted average life of the portfolio shall not exceed 2½ years.
- 5) No investments shall be made in financial futures or financial option contracts that are otherwise allowed pursuant to Section 53601.1 of the Government Code.
- 6) Interest earned through investment of the pooled District treasury shall be credited to the various water, sewer, and reserve account funds in direct proportion to their percentage of the total District treasury.
- 7) Accounts shall be maintained in North Marin Water District accounting records to record the reserve and inactive funds invested at all times in accordance with the State Controller's chart of accounts as authorized by Section 53891 of the Government Code.
- 8) Reserve fund account balances shall be maintained separately and shall reflect at all times the balance in each reserve fund in a manner consistent with generally accepted accounting practices.
- 9) Depositories having custody of North Marin Water District funds shall be directed to forward copies of all correspondence concerning North Marin Water District funds to the Auditor-Controller of North Marin Water District, serving as Treasurer. In the Auditor-Controller's absence, the General Manager of the District shall serve as Treasurer. In addition to the Auditor-Controller, the General Manager, the Assistant General Manager/Chief Engineer, and the Accounting Supervisor shall be signatories on all



investment accounts maintained by the District. Banking Institutions shall require authorization from two signatories to execute any non-recurring wire transfer.

10) Verification that moneys have been on deposit at all times and collateralized in amounts equal to or in excess of funds designated by the Board of Directors as reserve funds shall be made in the annual audit of records.

11) The Auditor-Controller shall render a monthly investment report to the Board.

12) Criteria for selecting investments and the absolute order of priority shall be: (a) safety, (b) liquidity, (c) yield.

13) No more than two-thirds of District deposits in a depository shall be collateralized by non-government guaranteed mortgage backed securities, with the remainder to be backed by government guaranteed mortgage backed securities or non-mortgage backed securities.

14) The Auditor-Controller shall maintain a list of authorized broker/dealers who are approved for investment purposes. All authorized broker/dealers must certify that they have received and read the District's Investment Policy and will follow the guidelines therein, and must submit a copy of their firm's most recent audited financial statement annually. Staff shall investigate broker/dealers who wish to do business with the District to verify their experience with California public sector agencies, verify that they are licensed and in good standing with the California Department of Securities, the Securities and Exchange Commission or other applicable self-regulatory organizations.

#### RECOMMENDATION

Approve the Investment Policy as presented.

6

**MEMORANDUM**

To: Board of Directors October 3, 2023  
From: Eric Miller, Assistant GM/Chief Engineer *EM*  
Avram Pearlman, Associate Engineer *AP*  
Re: Bahia Hydropneumatic System Replacement Project  
Design Services Contract Amendment  
R:\NON JOB No ISSUES\Consultants\Freyer & Laureta\BOD Memo\F&L Amend 2 Contract BOD memo 10-03-2023.doc

**RECOMMENDED ACTION:** Board authorize the General Manager to amend the agreement with Freyer & Laureta, Inc.

**FINANCIAL IMPACT:** \$28,900 (included in FY 23/24 CIP Budget)

The District has historically relied on consultant services via qualified engineering and other professional services firms to assist with the planning, engineering support and design of Capital Improvement Projects (CIP) or special studies to supplement in-house staff. On September 3, 2021, the Board approved an Agreement with Freyer & Laureta, Inc. (F&L) for engineering and design services related to the District's seven (7) hydropneumatic pressure stations, and established an initial budget of \$98,600 for Tasks 1-4 of the proposed scope of work (attached).

The scope of work also included optional services (Task 5) for the design phase of the priority site identified as a deliverable in the previous tasks. The Bahia hydropneumatic system was selected as the highest priority site for replacement, and Amendment 1 to F&L's contract was approved by the Board on October 10, 2022 which authorized F&L to proceed with Task 5.

As F&L progressed with design of the Bahia hydropneumatic system, District staff identified additional scope that would improve efficiency at the future site and requested that F&L provide a proposal to integrate the District's standard SCADA controller rather than use and integrated package SCADA system. This decision carries an increased design cost, although future hydropneumatic replacement projects will duplicate this design and the District will realize future cost savings.

The purpose of this memo is to request a second amendment to the agreement with F&L to fund final design efforts under Task 5 with this new direction from District staff. To date, F&L has provided the District with quality work at a reasonable price, and staff feels that this amendment is in-line with industry costs for this work.

Below is a summary of the contract costs to date:

TABLE 1: Contract Summary

Initial Contract Amount	\$98,600
Amendment 1	\$61,200
Amendment 2	\$28,900
New Total Not-to-Exceed Contract Amount	\$188,700
Total billed to date	\$155,559
Remaining Balance on Contract after Amendment 2	\$33,141

Amendment 2 will increase funds for F&L to continue to provide a detailed design for the Bahia hydropneumatic system, including additional drawings, bid specifications and an engineer's estimate of probable cost. Additionally, the period of performance for the contract will be extended until June 30, 2024 to accommodate the increased scope of work.

#### RECOMMENDATION

Board authorize the General Manager to amend the agreement with Freyer & Laureta, Inc., for the Bahia Hydropneumatic System Replacement Project in the amount of \$28,900 for a new total not-to-exceed amount of \$188,700.

Attachment: 1. Freyer & Laureta, Inc. Proposal for Additional Engineering and Design Services (ASR #1) dated June 8, 2023



June 8, 2023

Avram Pearlman, P.E.  
 Associate Engineer  
 North Marin Water District  
 PO Box 146  
 Novato, CA 94948

**RE: Proposal for Additional Engineering and Design Services (ASR #1)  
 NMWD Hydro-pneumatic Stations Project  
 North Marin Water District, Novato, CA**

Dear Mr. Pearlman,

Freyer & Laureta, Inc. (F&L) is pleased to present to the North Marin Water District (District) the attached proposal for additional engineering design services, referred to herein as Additional Services Request #1 (ASR #1), for the Hydro-pneumatic Stations Project (Project). This proposal is in addition to the original proposal dated August 19, 2021. We will provide additional services with support from our specialty sub-consultant, Beecher Engineering, Inc. (BEI).

## Background

The F&L team worked with the District to design the priority hydro-pneumatic tank site, Bahia, once the District authorized Task 5 from our original proposed dated August 19, 2021 via email on September 27, 2022. The F&L team submitted the 65% submittal on January 6, 2023, and the 90% Submittal on March 10, 2023. As part of the submittal review process, the F&L team collaborated with the District and Core Utilities to evaluate the proposed System Control and Data Acquisition (SCADA) strategy that was based on the Bahia project utilizing a packaged pump station as the preferred solution.

As presented in the Engineering Assessment dated September 2, 2022, a packaged pump station was the preferred option to simplify construction and reduce engineering design fee as well as schedule as the station arrives on site as a complete unit. The District and F&L collaborated throughout the Engineering Assessment to evaluate potential solutions for all hydro-pneumatic tank sites and agreed that the most cost effective solution for the District's hydro-pneumatic tank sites was to replace the existing Bahia system with a packaged pump station. As described in the Engineering Assessment and presented in the Bahia design submittals, the packaged pump station solution requires minimal electrical and controls engineering support from the F&L team because the packaged pump station supplier provides a complete and operable solution including completing the necessary engineering design as part of the shop drawing submittal process. The disadvantage of the packaged pump station solution was that integration of the package pump station control system into the District SCADA would be limited to the package pump station control system providing run status only and

### Headquarters

150 Executive Park Blvd, Ste 4200  
 San Francisco, CA 94134  
 (415) 534-7070

### North Bay Office

505 San Marin Dr, Ste A220  
 Novato, CA 94945  
 (415) 534-7070

### East Bay Office

825 Washington Street, Ste 237  
 Oakland, CA 94607  
 (510) 937-2310

### South Bay Office

20863 Stevens Creek Blvd, Ste 400  
 Cupertino, CA 95014  
 (408) 516-1090



the ability for District staff to remotely stop the pumps via communication with the onsite Remote Telemetry Unit (RTU) that currently exists at the Crest Tank site.

During discussions with District staff following the 90% submittal, the team collaborative identified potential pros and cons with implementing a packaged pump station solution including strategies for partially modifying the package pump station supplier scope of work. Based on the collaborative discussions, F&L understands that the District would like to explore potentially implementing a pump solutions without a packaged pump station due to the complication of integrating the packaged pump station into the District's existing SCADA system. The District requested that F&L team provide a proposal to modify the current design to implement a pump station solution without reliance on a package pump station. Changing the specified packaged pump station to the new pump configuration requires additional services, including:

- Specifying pump motor control center (MCC) with variable frequency drives (VFDs) to power and operate the currently specified pumps,
- Modifying the layout of the new pump station building,
- Control schematics that will include a new custom-integrated control panel for the new pump equipment and new flow instrumentation, and
- New electrical details for the new pump configuration.

F&L understands that we will partner with Core Utilities to collaboratively develop the pump control narrative and that Core Utilities will lead the SCADA design and integration component of the project.

## **Proposed Scope**

F&L will provide the following additional services:

### Task 1 – Project Management:

- No Additional Scope

### Task 2 – Engineering Assessment:

- No Additional Scope

### Task 3 – Concept Design:

- No Additional Scope

### Task 4 – Technical Report:

- No Additional Scope

### Task 5 – Design Services for Priority Site

The F&L team has submitted both the 65% and 90% Design Submittals specifying a packaged pump station from Grundfos. If the Project moves forward without a packaged pump station, it is recommended that the F&L team should provide revised milestone submittals at 75% Design and 95% Design. F&L will engage BEI to provide the additional scope for Task 5, including:

- 1) BEI and F&L will attend an on-site meeting with the District and Core Utilities to discuss SCADA integration pump system requirements before the 75% Submittal.
- 2) Developing the final design utilizing the PG&E single phase, 240 V, 200 amp service.
- 3) BEI will develop the following additional drawings:
  - a) E001: Electrical Legend and General Notes
  - b) E002: Electrical Site Plan
  - c) E003: Facility Single Line Diagram – Demolition
  - d) E004: Facility Single Line Diagram – Modifications
  - e) E005: Control Schematic Diagram-1
  - f) E006: Control Schematic Diagram-2
  - g) E007: Electrical Details-1
  - h) E008: Electrical Details-2
  - i) E009: Electrical Details-3
  - j) E010: Electrical Details-4
  - k) E011: New Electrical Ductbank Schedules
  - l) E012: Circuit Schedules
- 4) BEI will develop the following expanded technical specifications:
  - a) Section 16100 – Electrical Requirements
  - b) Section 17100 – Control System Requirements
  - c) Section 17200 – Control Strategies
- 5) Specification Section 17100 will include specifications for the new flowmeter being added to the site and any hardware/hardwire modifications required for the existing RTU. Specifications will state that existing RTU/PLC and SCADA system programming will be performed “By Others” (i.e., Core Utilities).
- 6) BEI will develop the Specification Section 17200 template. Core Utilities, in collaboration with F&L, will provide a narrative description of how the new pumping system will operate.
- 7) BEI and F&L will attend up to two virtual workshops with the District.

#### *Deliverables*

1. Site Visit Meeting Minutes
2. 75% Design Submittal
3. 75% Design Submittal Workshop Agenda and Minutes (Virtual)
4. 95% Design Submittal
5. 95% Design Submittal Workshop Agenda and Minutes (Virtual)
6. Final Design Submittal

#### *Key Task Assumptions*

1. The District will contract Core Utilities to provide RTU/PLC and SCADA system programming, including providing the Specification Section 17200.
2. Per previous discussions with the District, demolition of the electrical components of the existing Bahia booster pump system has been excluded and is assumed to be abandoned in place with no work required by the Contractor.

### **Proposed Schedule**

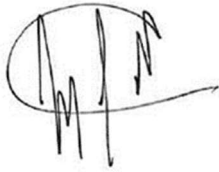
F&L will provide the Scope of Work described above on a mutually agreeable schedule.

## Proposed Fee

F&L proposes to provide the Scope of Work described on a time and materials basis in accordance with our current Charge Rate Schedule dated January 1, 2021, for a not-to-exceed fee of **\$28,900**, which will not be exceeded without written approval. Table 1, attached to this proposal, includes a summary of estimated hours by task and billing classification.

Thank you for the opportunity to continue to support the District on this important project. Please contact me at (650) 619-3226 or [tarantino@freyerlaureta.com](mailto:tarantino@freyerlaureta.com) to discuss any questions or comments about this proposal.

Very truly yours,



**Jeffrey J. Tarantino, P.E., Executive Vice President  
FREYER & LAURETA, INC.**

### Attachments:

1. Table 1 – Budget for Additional Services – Hydro-Pneumatic Tank Project



**TABLE 1**  
**BUDGET ESTIMATE FOR ADDITIONAL ENGINEERING AND DESIGN SERVICES**  
**HYDRO-PNEUMATIC STATIONS PROJECT**  
 North Marin Water District

TASKS	ESTIMATED LABOR (Hours)									TOTAL LABOR COST (\$)
	F&L				CEG			BE	AH	
	Clerical	Staff Engineer III	Project Manager	Principal	GIS/CADD	Project Engineer/Geologist	Principal Engineer	Project Manager	Principal	
	90	140	195	235	149	187	275	221	231	
<b>Task 1: Project Management</b>										
No additional Scope										
Subtotal Labor Hours - Task 1										
<b>Task 2: Engineering Assessment</b>										
No additional Scope										
Subtotal Labor Hours - Task 2										
<b>Task 3: Conceptual Design</b>										
No additional Scope										
Subtotal Labor Hours - Task 3										
<b>Task 4: Technical Report</b>										
No additional Scope										
Subtotal Labor Hours - Task 4										
<b>Task 5: Design Services for Priority Site</b>										
Site Visit								4		\$900
Develop 75% Design Documents		8	2					45		\$11,400
District Staff Meeting to Review 75% Design Documents			1	1				4		\$1,300
Develop 95% Design Documents		4	2					36		\$8,900
District Staff Meeting to Review 95% Design Documents			1	1				4		\$1,300
Develop Final Design Documents		2	1					20		\$4,900
Internal Review				1						\$200
Subtotal Labor Hours - Task 5		14	7	3				113		\$28,900
<b>Total Labor Hours</b>		<b>14</b>	<b>7</b>	<b>3</b>				<b>113</b>		<b>\$28,900</b>

**7**



## MEMORANDUM

To: Board of Directors October 3, 2023

From: Tony Williams, General Manager *TW*  
 Ryan Grisso, Water Conservation Coordinator *RG*

Subj: Comment Letter to State Water Resource Control Board – Proposed Regulatory Framework for Making Water Conservation a Way of Life  
t:\gmlbod memos 2023\10-3-23 meeting\comment letter to swrcb\10-3-23 bod com ltr swrcb conserv rules.docx

**RECOMMENDED ACTION:** Authorize the General Manager to Send a Comment Letter to State Water Resources Control Board regarding Proposed Rulemaking on Water Conservation

**FINANCIAL IMPACT:** None at this time

The State Water Resources Control Board (SWRCB or “Water Board”) is proposing to adopt new regulations (see Attachment 1) to establish long-term water conservation requirements in response to climate change and the likely occurrence of longer and more intense droughts as well as the 2018 passing of Senate Bill (SB) 606 and Assembly Bill (AB) 1668 (together, 2018 conservation legislation).

Staff has reviewed the proposed regulations and has prepared a comment letter (Attachment 2) to be submitted to the State Board. The comments include a consensus response from the Sonoma Marin Saving Water Partnership (SMSWP) and member agencies, mainly relating to our historic water conservation achievements without such an onerous regulation and inconsistencies between the original legislation and the proposed regulations, with reference to proposed draft regulation improvement points submitted by the Association of California Water Agencies (ACWA). Staff also feels that this proposed regulation, as drafted, in conjunction with all the other new water quality regulations will have impacts to District staffing levels with little or not direct benefit to our customers.

### RECOMMENDATION

Authorize the General Manager to send the attached comment letter in response to the Water Board’s proposed rulemaking for making water conservation a California way of life on behalf of the District.

### ATTACHMENTS:

1. Notice of Proposed Regulatory Action
2. Draft comment letter to Water Board




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## State Water Resources Control Board

**NOTICE OF PROPOSED REGULATORY ACTION**  
**TITLE 23. Waters**  
**DIVISION 3. State Water Resources Control Board and Regional Water Quality Control Boards**  
**CHAPTER 3.5 – Urban Water Use Efficiency and Conservation**  
**ARTICLE 1**  
**SUBJECT: MAKING CONSERVATION A CALIFORNIA WAY OF LIFE**

### NOTICE OF PROPOSED RULEMAKING

The State Water Resources Control Board (State Water Board or Board) proposes to adopt the proposed regulation described below, after considering all comments, objections, and recommendations regarding the proposed action.

### PROPOSED REGULATORY ACTION

The State Water Board proposes to add California Code of Regulations, title 23, division 3, chapter 3.5, article 1, sections 965-975 and 978. Existing articles 1, 2, and 3 will be renumbered to articles 2, 3, and 4, respectively. The proposed new sections would establish a new foundation for long-term improvements in water conservation and drought planning to adapt to climate change and the resulting longer and more intense droughts in California. The proposed *Making Conservation a California Way of Life* regulation (proposed regulation) would require Urban Retail Water Suppliers (suppliers) to calculate and adhere to water use objectives, implement Commercial, Industrial, and Institutional (CII) performance measures, and submit annual progress reports.

### PUBLIC HEARING

The State Water Board will conduct a public hearing on **October 4, 2023**. The public hearing will include an overview of the regulatory timeline and process, along with presentations led by urban retail water suppliers and other interested parties on the proposed regulation. At the hearing, any person may present oral or written comments relevant to the proposed action described in this notice, in addition to the written comment opportunity described below. Board staff will provide an overview of the proposed regulation and key provisions, followed by an opportunity for the public to comment. While a quorum of the State Water Board may be present, the Board will not take formal action at the public hearing.

The meeting will be held at the Joe Serna Jr. CalEPA Building, 1001 I Street, Sacramento, CA 95814, with the option to participate remotely.

E. JOAQUIN ESQUIVEL, CHAIR | EILEEN SOBECK, EXECUTIVE DIRECTOR

Notices will be sent to those who subscribe to the “Water Conservation Regulations” GovDelivery topic list. Information about the public hearing will be posted on the webpage:

[https://www.waterboards.ca.gov/water\\_issues/programs/conservation\\_portal/regs/water\\_efficiency\\_legislation.html](https://www.waterboards.ca.gov/water_issues/programs/conservation_portal/regs/water_efficiency_legislation.html)

## LANGUAGE SERVICES

To request translation of documents, interpretation services, or to submit a language access complaint, please submit your request by September 22, 2023, using one of the following options:

1. Complete online request at: [bit.ly/LanguageAccessForm](https://bit.ly/LanguageAccessForm)
2. Call (916) 341-5254
3. Email [OPP-LanguageServices@Waterboards.ca.gov](mailto:OPP-LanguageServices@Waterboards.ca.gov)

## SPECIAL ACCOMMODATION REQUEST

To request special accommodations or language needs, please contact the Clerk to the Board at (916) 341-5611 as soon as possible, but no later than 10 business days before the scheduled Board hearing.

Para solicitar comodidades especiales o necesidades de otro idioma, por favor llame a la oficina del Consejo al (916) 341-5611 lo más pronto posible, pero no menos de 10 días de trabajo antes del día programado para la audiencia del Consejo.

## WRITTEN COMMENT PERIOD AND SUBMITTAL OF COMMENTS

[Gov. Code, § 11346.4(a), § 11346.5(a)(15)]

Any interested person may submit written comments relevant to the proposed regulatory action to the Clerk to the State Water Board. Any written comments pertaining to the proposed regulation, regardless of the method of transmittal, must be received by the Clerk **by October 17, 2023**, which is hereby designated as the close of the written comment period. Comments received after this date will not be considered timely. Written comments may be submitted via any of the following methods:

1. By email to: [commentletters@waterboards.ca.gov](mailto:commentletters@waterboards.ca.gov). The State Water Board requests but does not require that email transmission of comments, particularly those with attachments, contain the regulation package identifier “**Comment Letter—Proposed Making Conservation a California Way of Life Regulation**” in the subject line to facilitate timely identification and review of the comment.
2. By fax transmission to: (916) 341-5620. The State Water Board requests but does not require that faxed comments contain the subject line “**Comment Letter—Proposed Making Conservation a California Way of Life Regulation.**”
3. By mail to: Clerk to the Board, Courtney Tyler, State Water Resources Control Board, P.O. Box 100, Sacramento, CA 95812-0100.
4. Hand-delivered to: Clerk to the Board, Courtney Tyler, State Water Resources Control Board, 1001 I Street, 24th Floor, Sacramento, CA 95814.

The State Water Board requests but does not require that written comments be sent by mail or that hand-delivered be submitted in triplicate.

The State Water Board requests, but does not require, that, if reports or articles in excess of 25 pages are submitted in conjunction with the comments, the commenter provide a summary of the report or article and describe the reason for which the report or article is being submitted or its relevance to the proposed regulation.

All comments, including email or fax transmissions, should include the author's name and U.S. Postal Service mailing address in order for the State Water Board to provide copies of any notices that may be required in future.

Due to the limitations of the email system, emails larger than 15 megabytes (MB) may be rejected and will not be delivered and received by the State Water Board. Therefore, emails larger than 15 MB should be submitted under separate emails or via another form of delivery.

Please note that under the California Public Records Act (Gov. Code, § 7920.000 et seq.), your written and oral comments, attachments, and associated contact information (e.g., your address, phone, email, etc.) become part of the public record and can be released to the public upon request.

If you would like to request a copy of the public comment letters received by the Board for this item, send an email to [commentletters@waterboards.ca.gov](mailto:commentletters@waterboards.ca.gov) and identify that you are requesting copies of public comments for the proposed Making Conservation a California Way of Life Regulation.

To be added to the mailing list for this rulemaking and to receive notification of updates for this rulemaking, you may subscribe to the GovDelivery list for "**Water Conservation Regulations**" [here](#) by selecting "General Interests," then selecting "Water Conservation Regulations."

#### **AUTHORITY AND REFERENCE**

The State Water Board proposes to adopt regulations implementing, interpreting, and making specific Water Code sections 275, 10609, 10609.2, 10609.4, 10609.6, 10609.8, 10609.9, 10609.10, 10609.12, 10609.14, 10609.16, 10609.20, and 10609.22.

Authority: Sections 275, 1058, 10609.2, 10609.10, 10609.20, and 10609.28, Water Code.

References: Article X, Section 2, California Constitution; Sections 3080, 4080, 4100, and 4185, Civil Code; Sections 8558 and 51201, Government Code; Sections 116275 and 116530, Health and Safety Code; Sections 102, 104, 105, 350, 1122, 1123, 1124, 1846, 1846.5, 10608.12, 10608.20, 10608.34, 10609.2, 10609.4, 10609.6, 10609.8, 10609.9, 10609.10, 10609.12, 10609.20, 10609.24, 10609.26, 10609.27, 10609.28, 10611.3, 10617, 10632, and 10728, Water Code.

## **CALIFORNIA ENVIRONMENTAL QUALITY ACT**

Pursuant to section 10609.34 of the Water Code, the proposed regulation is exempt under California Code of Regulations, title 14, section 15308 (Class 8 exemption). The proposed action does not involve the relaxation of existing water conservation or water use standards.

### **INFORMATIVE DIGEST**

[Gov. Code, § 11346.5(a)(3)]

#### **Summary of Existing State Law and Regulations**

In 2018, the California State Legislature enacted Senate Bill (SB) 606 and Assembly Bill (AB) 1668 (together, 2018 conservation legislation) to establish a new foundation for long-term improvements in water conservation and drought planning to adapt to climate change and the longer and more intense droughts that are likely to result in California. Water Code section 10609.2 directs the State Water Resources Control Board (State Water Board or Board) to adopt long-term standards for the efficient use of water, variances for unique uses that can have a material effect on urban water use, and guidelines and methodologies pertaining to the calculation of an urban water use objective (objective). Water Code section 10609.10, subdivision (d) directs the Board to adopt performance measures for Commercial, Industrial, and Institutional (CII) water use. Water Code sections 10609.22 and 10609.24 direct each Urban Retail Water Supplier (supplier) to annually calculate its objective and provide a report pertaining to the objective and implementation of the CII performance measures. The Board's proposed *Making Conservation a California Way of Life* regulation (proposed regulation) would establish methodologies and guidelines to calculate the objectives; standards for efficient residential outdoor water use and efficient use of water on CII landscapes with Dedicated Irrigation Meters (DIMs); CII performance measures; and annual reporting requirements.

Water Code section 10609.2, subdivision (d) directs that the proposed regulation exceeds the targets established by SB X7-7.

Water Code section 10609, subdivision (c)(3) directs that the "long-term standards and urban water use objectives should acknowledge the shade, air quality, and heat-island reduction benefits provided to communities by trees through the support of water-efficient irrigation practices that keep trees healthy."

Water Code section 10609, subdivision (c)(2) directs that the "long-term standards and urban water use objectives should advance the state's goals to mitigate and adapt to climate change."

#### **Comparable Federal Statute and Regulations**

[Gov. Code § 11346.5(a)(3)(B)]

There are no federal regulations or statutes that address the specific subject addressed by the proposed regulation.

### **Effect of the proposed rulemaking**

[Gov. Code § 11346.5(a)(3)(A)]

The proposed regulation creates a new framework for managing urban water use by California's largest water suppliers. It would establish unique efficiency goals for each supplier based on local conditions, while leaving flexibility to implement locally appropriate solutions. In addition to establishing long-term standards for the efficient use of water throughout California's urban areas and a framework that incorporates local conditions and provides flexibility to suppliers to make locally appropriate implementation choices, the proposed regulation is expected to save a significant amount of water.

A recent assessment of urban water supplies found that adopting proven technologies and practices could reduce urban water use in California by 2.0 million to 3.1 million acre-feet per year (AFY), or by 30 to 48 percent (Cooley et al., 2022). The proposed regulation would help California begin to realize that potential; by 2035, it is expected to reduce statewide urban water use by approximately 15 percent from 2020 levels. The Board estimates that the proposed regulation would save approximately 235,000 acre-feet of water in 2025 (compared to the assumed 2025 baseline water use) and increased amounts in subsequent years, reaching almost 440,000 acre-feet of water in 2040 (compared to the assumed 2040 baseline water use). In this way, the proposed regulation would help to realize the [California Water Supply Strategy](#) goal of building upon the conservation achievements of the last two decades to reduce annual water demand in towns and cities by at least half a million acre-feet by 2030.

The proposed regulation would help realize the water savings outlined in the water supply strategy. It is also expected to create indirect benefits beyond water savings. While not the primary goal of the proposed regulation, implementation of the framework is likely to result in suppliers making investments and programmatic changes that encourage individuals, businesses, and local governments to change how they use water. Such changes have the potential to advance the State Water Board's mission of preserving, enhancing, and restoring the quality of water resources and the statutory directive to advance California's climate change mitigation and adaptation goals. The proposed regulation can also support statewide policies to accelerate nature-based solutions, divert organic waste from landfills, build healthy soils, and advance equity.

### **Policy Statement Overview**

[Gov. Code § 11346.5(a)(3)(C)]

The proposed regulation is designed to establish a new foundation for long-term improvements in water conservation and drought planning to adapt to climate change and the longer and more intense droughts that are likely to result in California. The effect of the proposed regulation is the establishment of long-term standards for the efficient use of water and performance measures for commercial, industrial, and institutional water use. Additionally, it will establish a method to estimate the aggregate amount of water that would have been delivered the previous year by an urban retail water supplier if all that water had been used efficiently. This estimated aggregate water use is the urban retail water supplier's urban water use objective. The objective is based



on the water use efficiency standards and local service area characteristics for that year. By comparing the amount of water used in the previous year with the urban water use objective, local urban water suppliers will be in a better position to help eliminate unnecessary use of water; that is, water used in excess of that needed to accomplish the intended beneficial use.

### **Specific Benefits Anticipated from the Proposed Regulatory Action**

[Gov. Code § 11346.5(a)(3)(C)]

#### Protecting Human Health and Water Resources

- In addition to saving water, the proposed regulation may also bring about changes to urban landscapes that protect water quality by reducing dry-weather and wet-weather runoff.
- The proposed regulation would incentivize changes to urban landscapes, including, in some cases, the transition to climate-ready landscapes, which, for the purposes of the proposed regulation are landscapes that save water, reduce waste, nurture soil, sequester carbon, conserve energy and reduce urban heat, protect air and water quality, and create habitat for native plants and pollinators. Because climate-ready landscapes are more efficiently irrigated and make better use of precipitation, the proposed regulation could reduce wet-weather runoff, preventing water pollution and protecting water resources.
- By reducing urban water demand, the proposed regulation could help to preserve in-stream flows and water availability.

#### Supporting Practices that Keep Trees Healthy

- The proposed regulation incentivizes efforts to maintain and increase the urban tree canopy in California. It includes a provision for the planting of new, climate-ready trees and an alternative compliance pathway for suppliers that demonstrate their support of practices that keep trees healthy. By encouraging suppliers to invest in water conservation and tree care, the proposed regulation could not only save water but also support water-efficient irrigation practices that keep trees healthy.

#### Mitigating and Adapting to Climate Change

- Climate change is driving aridification and changing precipitation patterns. Aridification – hotter and drier conditions over longer periods – could diminish our existing water supply by up to 10 by 2040 (California Natural Resources Agency, 2022). Although a naturally occurring feature of California's climate, drought conditions have become more frequent and more intense. A combination of hotter temperatures and low precipitation years – especially when snowpack and snowmelt runoff are low - creates drier conditions. California has been getting drier since 1895. In California and across the southwestern United States, 2000 to 2021 were the driest 22-year period over the past 1,000 years, part of what

scientists call an emerging “megadrought” era (OEHHA, 2022). At the same time, changing precipitation patterns – more rain instead of snow and an increase in the duration, frequency, and intensity of “atmospheric river” storms – may lead to greater flooding risks and reservoirs having to release more water early in the spring to fulfill flood control functions, meaning less of the precipitation we do get can be captured and stored. Toward the end of the century, warming temperatures in California could result in a 30 percent loss of snowpack and a 25 percent increase in rain, leading to a higher volume of water rushing from headwaters and washing out across the state (Huang et al., 2020). In other words, we will likely be grappling with floods and drought simultaneously, causing impacts to water storage and availability.

- The proposed regulation will help us adapt to aridification and changing precipitation patterns. Finding and fixing leaks along with replacing older fixtures and appliances with efficient models will save water indoors and out. Saving water indoors, especially, saves energy, which can reduce the emission of greenhouse gases and other co-emitted air pollutants, improving air quality. If, as a result of work undertaken by suppliers to meet their objectives, households were to replace inefficient clothes washers with more efficient models, embedded statewide energy savings would reach approximately 1,860 GWh of electricity and 36.5 million MMBtu of natural gas by 2040; this equates to \$49 million in direct energy cost savings in 2025 and increased energy cost savings thereafter, reaching approximately \$100 million in 2040.
- Significant water savings can also be realized by transitioning away from high water-using landscapes such as turf to “climate-ready” landscapes. Climate-ready landscapes require much less water because they are planted with lower water-using vegetation that is irrigated much more efficiently. Because they are composed of deeply rooted vegetation and their soils enriched with mulch and compost, climate-ready landscapes are better at retaining rainwater. According to one study, such landscapes retain 80 percent of the rain (Kent, 2017). By slowing, spreading, and sinking rainwater, climate-ready landscapes help keep soils hydrated, which reduces irrigation needs. Climate-ready landscapes also lessen the impact of extreme wet weather events, helping to reduce flooding in urbanized areas.

#### Accelerating Nature-based Solutions, Diverting Organic Waste from Landfills, and Building Healthy Soils

- Implementation of the proposed regulation is likely to result in suppliers making investments and programmatic changes that encourage individuals, businesses, and local governments to change how they use water. Such changes have the potential to support statewide policies to accelerate nature-based solutions, divert organic waste from landfills, and build healthy soils.

### Advancing equity

- The proposed regulation aims to support Governor Newsom’s California’s Water Supply Strategy’s call on state agencies to respond to the hydrological challenges posed by climate change in a way that advances equity and supports disadvantaged communities (Water Supply Strategy, 2022). The proposed regulation incentivizes suppliers to make investments that not only save water but also advance equity. Specifically, the proposed regulation may, in the long-run, mitigate rate increases; it may also encourage suppliers to assess rate structures and invest in programs and partnerships that reduce urban heat.

### **EVALUATION OF INCONSISTENCY OR INCOMPATIBILITY WITH EXISTING STATE REGULATIONS**

[Gov. Code, § 11346.5(a)(3)(D)]

The State Water Board reviewed its existing general regulations and regulations specific to water use efficiency and conservation to evaluate whether the proposed regulation is inconsistent or incompatible with existing state regulations. The State Water Board determined that no other state regulation addressed the same subject matter and that this proposal, if adopted, would not be inconsistent or incompatible with existing state regulations.

### **MANDATED BY FEDERAL LAW OR REGULATIONS**

[Gov. Code, § 11346.2(c)]

Adoption of this regulation is not mandated by federal law or regulations.

### **OTHER STATUTORY REQUIREMENTS**

[Gov. Code, § 11346.5(a)(4)]

### **Safe, Clean, Affordable Water**

[Wat. Code, § 106.3]

Water Code section 106.3 states that it is the policy of the state that every human has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. In preparing the proposed regulation, the State Water Board determined the proposed regulation is consistent with this statewide policy. While the proposed regulation may, in some cases, result in increased costs to those served by a water system, that potential cost is expected to render water neither unaffordable nor inaccessible.

### **Urban Water Use Objectives and Water Use Reporting**

[Wat. Code, § 10609.2]

Water Code section 10609.2 states that the Board, in coordination with the department, shall adopt long-term standards for the efficient use of water, and that the standards shall be adopted for (1) Outdoor residential water use; (2) Outdoor irrigation of landscape areas with dedicated irrigation meters in connection with CII water use; (3) A volume for water loss. Additionally, when adopting the standards, the Board shall consider the policies of Chapter 9 of Division 6, Part 2.55 of the Water Code and the proposed efficiency standards’ effects on local wastewater management, developed

and natural parklands, and urban tree health. The Board also is required to set the long-term standards at a level designed so that the water use objectives, together with other demands excluded from the long-term standards such as CII indoor water use and CII outdoor water use not connected to a dedicated landscape meter, would exceed the statewide conservation targets required pursuant to Chapter 3 (commencing with Section 10608.16). Finally, section 10609.2 states that the Board, in coordination with the department, shall adopt by regulation variances recommended by the department pursuant to Section 10609.14 and guidelines and methodologies pertaining to the calculation of an urban retail water supplier's urban water use objective recommended by the department pursuant to Section 10609.16.

[Wat. Code, § 10609.10]

Water Code section 10609.10 states that the Board, in coordination with the department, shall adopt performance measures for CII water use.

**Pre-Notice Meeting with Affected Parties [Gov. Code, §11346.45(a)]**

Government Code section 11346.45, subdivision (a) requires that, prior to publication of the notice of proposed rulemaking, the agency proposing the regulation must involve parties who would be subject to the proposed regulation in public discussions, when the proposed regulation involves complex proposals or a large number of proposals that cannot be easily reviewed during the comment period. The State Water Board provided suppliers and other interested parties opportunities to be involved in public discussions about the proposed regulation in 12 workshops on the following topics:

- On December 3 and 4, 2021, State Water Board staff hosted two workshops describing the methods being used to analyze how the proposed efficiency standards could affect trees, parklands, and local wastewater management.
- On May 11, 2022, State Water Board staff hosted a workshop summarizing the results of the analysis undertaken to understand how the residential indoor and outdoor standards may affect the wastewater sector.
- On August 12, 2022, State Water Board staff hosted a workshop summarizing the results of the analysis undertaken to understand how the standards may affect trees and parklands.
- On February 23 and 28, 2023 and March 6, 8, and 10, 2023, State Water Board staff hosted workshops to provide an overview of the draft regulatory framework and sought the input of interested parties. Parties provided feedback to help staff understand and evaluate how the framework could affect various organizations, communities, and California. Staff also heard about whether or how various organizations could support efforts to make conservation a way of life.
- On March 22, 2023, State Water Board staff hosted a pre-rulemaking workshop during a public Board meeting. During this workshop, staff presented the proposed regulatory framework.

- On May 17 and 18, 2023, State Water Board staff hosted two workshops with small suppliers (those with less than 10,000 connections) to better understand how the draft regulatory framework could specifically affect small water suppliers.

### **LOCAL MANDATE**

[Gov. Code, § 11346.5(a)(5)]

The proposed regulation would not impose a mandate on local agencies or school districts that requires state reimbursement. The proposed regulation will not be a requirement unique to local government and will apply equally to public and private water systems.

Local agencies currently incur costs in their operation of urban water systems. The costs imposed by the proposed regulation are not the result of a “new program or higher level of service” within the meaning of Article XIII B, section 6 of the California Constitution because the proposed regulation applies generally to all individuals and entities that operate urban water systems in California and does not impose unique requirements on local governments (County of Los Angeles vs. State of California et al, 43 Cal App 3d 46 (1987)). In addition, suppliers can pass on the cost of regulation implementation through increasing service fees. Therefore, no state reimbursement of these costs is required (Gov. Code, §17556, subd. (d)).

### **FISCAL IMPACT**

[Gov. Code, § 11346.5(a)(6)]

#### **Cost to Local Agencies and School Districts Requiring Reimbursement**

None. Any costs incurred by local agencies or school districts as a result of the proposed regulation are not reimbursable by the State pursuant to Article XIII B, section 6 of the California Constitution. Urban retail water suppliers are expected to fully make up for the costs incurred as a result of the proposed regulation by adjusting their rates to customers over time. Government Code §17556, subdivision (d), identifies the types of actions that are not reimbursable state mandates: “the local agency or school district has the authority to levy service charges, fees, or assessments sufficient to pay for the mandated program or increased level of service. This subdivision applies regardless of whether the authority to levy charges, fees, or assessments was enacted or adopted prior to or after the date on which the statute or executive order was enacted or issued.”

#### **Other Non-discretionary Cost or Savings Imposed Upon Local Agencies**

Suppliers operated by local governments: Most suppliers are operated by local governments, usually a city, county, or district, and these suppliers serve almost 81 percent of the total population in the state. Like privately-owned suppliers, some publicly-owned suppliers will likely incur costs to meet their water use objectives. Like privately-owned suppliers, publicly-owned suppliers on the one hand will spend less to acquire water and less on stormwater-related corrective measures, but, on the other hand, will potentially lose revenue due to the water use reductions. Ultimately, the Board expects that suppliers will fully make up for their lost revenues by adjusting their rates to customers over time. Publicly-owned suppliers would incur aggregate costs of

approximately \$8.45 billion and accrue benefits of approximately \$9.09 billion from 2025 to 2040.

Local wastewater management agencies: Water Code section 10609.2 requires that the State Water Board evaluate how the proposed efficiency standards may affect local wastewater management. Wastewater collection, treatment, and reuse agencies may experience increased costs, as well as potential benefits, when the influent volumes lessen or become more concentrated. Local wastewater management agencies would incur costs of \$2.5 billion; benefits for these agencies could not be quantified.

Urban forestry and landscape management agencies: Water Code section 10609.2 requires that the State Water Board evaluate how the proposed efficiency standards may affect urban tree health as well as natural and developed parklands. Potentially affected areas may develop or update urban forestry management plans to prioritize spending on new trees. To meet their objectives, 149 suppliers may have to facilitate savings in outdoor water use. The urban forests within the service areas of these suppliers could be at risk if the required savings are not thoughtfully achieved. If, however, the required water savings are achieved by, for example, increasing the efficiency of irrigation systems and/or by converting turf into climate-ready landscapes, the risk would be minimized. In such areas, likely mitigation actions would include improved public education programs for irrigation management, development of urban forestry management plans and updated tree inventories, and new investments in irrigation technologies adapted to tree watering needs. Local wastewater management agencies would incur costs of approximately \$100 million; benefits for these agencies could not be quantified.

Local institutional water users: Suppliers, both privately- and publicly-owned, and wastewater management agencies may choose to pass on some or all of their increased costs and benefits to their end-customers. Some of their end-customers are local governments, i.e., local institutional water users. The average water cost for an affected CII property might decrease by approximately \$168 per month in the 2025-2040 period (compared to the assumed future baseline). The average wastewater cost might increase by approximately \$6 per month in the same period (compared to the assumed future baseline). Combined, water and wastewater costs would decline on average by \$1,944 a year (compared to the assumed future baseline). Local institutional water users will not incur the cost of purchasing from their suppliers the water that they save. More specifically, local institutional water users, as well as other CII customers, will not use as much water as they would in the absence of the proposed regulation. These water savings are a direct result of the CII performance measures that CII customers, including local institutional water users, implement. All else equal, water savings mean lower water bills (compared to the assumed future baseline).

Local sales tax: Suppliers and households will spend more on residential water use efficiency programs and CII performance measures. Wastewater management agencies and urban forestry and landscape management agencies will also incur expenses because of the proposed regulation. Much of that spending includes purchases of several types of goods, including, for example, landscape material, high-efficiency toilets and washers, valves, and water leak monitoring equipment. Sales tax will generally apply to such purchases. The proposed regulation therefore is expected to

have an impact on sales tax revenues. Local sales tax revenues will be greater in the first years of the proposed regulation as this is when much of the water use efficiency measures are assumed to be implemented. Aggregate local sales tax revenues are estimated to increase (compared to the assumed future baseline) by almost \$21 million in 2025, and between \$500,000 and \$3.6 million per year in the following years.

Local inspection and permit fees: As Dedicated Irrigation Meters (DIMs), DIM tie-ins, and backflow devices are installed, suppliers will pay fees to local governments for the appropriate permits and backflow inspections. Local governments thus will experience an increase in revenues from such fees. The aggregate increase in revenue from inspection and permit fees across all local governments will amount to approximately \$2.9 million per year between 2025 and 2030. The additional local staff for these inspections and permitting processes would cost approximately \$1.8 million per year, including overhead, between 2025 and 2030 to local governments.

Local property taxes: Together, wastewater management agencies would incur costs of \$385 million per year between 2025 and 2030, and \$78 million per year afterward. The Board assumed that such costs would be passed on to customers. Wastewater management agencies may pass service charges to customers in different ways, including, for example, through wastewater service bills and property taxes. Wastewater charges are not a property tax and are not related to the assessed value of a property. However, these charges are sometimes included in property tax statements to save on administrative costs. If the estimated wastewater costs were passed on entirely via property tax statements, aggregate revenues across all counties in California would increase (compared to the assumed future baseline) by as much as \$385 million in 2025, and \$78 million per year in the following years.

### **Costs or Savings Imposed Upon State Agencies**

State Water Resources Control Board: None. The State Water Board does not anticipate an increase in resource needs because of the proposed regulation.

State institutional water users: Suppliers are expected to pass on costs and benefits of the proposed regulation to customers, some of which are state institutional water users. The cost pass-through calculation for state institutional water users is the same as the one performed for local institutional water users, and, therefore, relies on the same assumptions and has the same limitations. The average water cost for an affected CII property might decrease by approximately \$168 per month in the 2025-2040 period (compared to the assumed future baseline). The average wastewater cost might increase by approximately \$6 per month in the same period (compared to the assumed future baseline). Combined, water and wastewater costs would decline on average by \$1,944 per year (compared to the assumed future baseline). Collectively, state institutional water users would not incur the cost of purchasing from their suppliers the water that they would save as a result of the proposed regulation. That is, state institutional water users, as well as other CII customers, will not use as much water as they would in the absence of the proposed regulation. These water savings are a direct result of the CII performance measures that CII customers, including state institutional water users, implement. All else equal, water savings mean lower water bills (compared to the assumed future baseline).

State sales tax: As explained for local sales tax, much of the spending by suppliers, households, wastewater management agencies, and urban forestry and landscape management agencies includes purchases of several types of goods; sales tax will generally apply to such purchases. The proposed regulation therefore is expected to have an impact on the state's sales tax revenue. State sales tax revenues will be greater in the first years of the proposed regulation as this is when much of the water use efficiency measures are expected to be implemented. State sales tax revenues are estimated to increase (compared to the assumed future baseline) by almost \$162 million in 2025, and between \$4 million and \$28 million per year in the following years.

### **Costs or Savings in Federal Funding to the State**

None. The State Water Board has determined that the proposed regulation will not create additional costs or savings in federal funding to the state.

### **HOUSING COSTS**

[Gov. Code, § 11346.5(a)(12)]

The State Water Board does not expect that the regulation will have an impact on housing costs.

### **SIGNIFICANT STATEWIDE ADVERSE ECONOMIC IMPACT DIRECTLY AFFECTING BUSINESS, INCLUDING ABILITY TO COMPETE**

[Gov. Code, § 11346.3(a), § 11346.5(a)(7), § 11346.5(a)(8)]

### **Types of Businesses Affected**

Urban retail water suppliers can be either publicly-owned (e.g., municipal agencies, special-purpose and irrigation districts, municipal water districts, and counties) or privately-owned (e.g., investor-owned utilities and nonprofit mutual water companies). The proposed regulation would apply to 405 urban retail water suppliers in the state, 337 of which are publicly-owned. For the purpose of the economic impact assessment, the Board assumed that "businesses" refer to the remaining 68 regulated privately-owned suppliers. Suppliers are generally local monopolies; households and CII customers usually do not have a choice between their water service supplier and another one. Therefore, suppliers are typically not subject to competition in the short term (see Creation of New Businesses or Elimination of Existing Businesses within California section and Competitive Advantages or Disadvantages for California Businesses section below).

### **Projected Compliance Requirements**

Water Code section 10609 et seq. required the Department of Water Resources to provide recommendations on and the State Water Board to adopt standards for the efficient use of water, variances for unique uses that can have a material effect on water use, performance measures for commercial, industrial, and institutional water use, and guidelines and methodologies that identify how each urban retail water supplier will calculate an urban water use objective. The proposed regulation would require suppliers



to comply with urban water use objectives, implement the adopted CII performance measures, and submit annual progress reports.

Urban water use objective: A supplier's urban water use objective is a retrospective estimate of aggregate, efficient water use for the previous year, based on adopted water use efficiency standards and local service area characteristics for that year. A supplier's water use objective equals the sum of standard-based budgets for residential indoor use, residential outdoor use, CII landscapes with DIMs, which are submeters that supply water for only outdoor irrigation, and real water losses. When applicable, the urban water use objectives will also include variances (for example, for water use associated with livestock), provisions (for example, for existing pools, spas and similar water features or for the planting of new, climate-ready trees) and a bonus incentive for potable recycled water use.

Performance measures: CII performance measures are actions to be taken by urban retail water suppliers that would result in increased water use efficiency by CII water users. They will not affect industrial process water. Under the proposed regulation, there are three CII performance measures: (1) suppliers will be required to install DIMs on or employ in-lieu technologies for the landscapes of CII customers that a) do not have a DIM and b) the supplier estimates to have used more than 500,000 gallons of water; (2) suppliers will be required to classify their CII customers according to the broad classification categories used by the U.S. Environmental Protection Agency's ENERGYSTAR Portfolio Manager tool; (3) suppliers will be required to offer best management practices (BMPs) to CII customers that meet specific criteria.

### **Ability to Compete**

[Gov. Code, §11346.5(a)(7)(C)]

The State Water Board has made an initial determination that the adoption of this regulation may have a significant, statewide adverse economic impact directly affecting business. The State Water Board has considered proposed alternatives that would lessen any adverse economic impact on business and invites you to submit proposals. Submissions may include the following considerations:

- (i) The establishment of differing compliance or reporting requirements or timetables that take into account the resources available to businesses.
- (ii) Consolidation or simplification of compliance and reporting requirements for businesses.
- (iii) The use of performance standards rather than prescriptive standards.
- (iv) Exemption or partial exemption from the regulatory requirements for businesses.

The State Water Board has made an initial determination that the adoption of this regulation will not directly affect the ability of California businesses to compete with businesses in other states.

## **RESULTS OF THE STANDARDIZED REGULATORY IMPACT ANALYSIS (SRIA)**

[Gov. Code, § 11346.5(a)(10), § 11346.3(c)]

### **Statement of Results**

The State Water Board determined that the economic impact of the proposed regulation would likely exceed \$50 million in a 12-month period so the regulation should be considered a Major Regulation as defined by California Code of Regulations, title 1, section 2000, subdivision (g). The State Water Board prepared a SRIA as required by Government Code section 11346.3, subdivision (c).

The proposed regulation would save approximately 235,000 acre-feet of water in 2025 (compared to the assumed 2025 baseline water use) and increased amounts in subsequent years, reaching almost 440,000 acre-feet of water saved in 2040 (compared to the assumed 2040 baseline water use). The total cumulative amount of water savings in the 2025-2040 period would be approximately 6.3 million acre-feet. Most of the estimated water savings (approximately 80 percent) would come from the assumed residential water use efficiency measures, and the remainder (approximately 20 percent) from CII performance measures.

In the 2025-2040 period, quantified benefits of the proposed regulation are estimated to exceed the quantified costs. Assuming a discount rate of 3 percent, the State Water Board estimates present discounted values of \$16.0 billion for the quantified benefits and \$13.5 billion for the quantified costs.

Most of the estimated benefits originate from reduced water purchases or reduced water production (compared to the assumed future baseline) by the affected suppliers. The estimated benefits also originate from reduced water use (compared to the assumed future baseline) by residential customers (reduced water use by CII customers, although also a benefit, could not be quantified).

Most of the estimated costs originate from the implementation of residential water use efficiency measures, approximately \$5.8 billion from 2025 to 2040 or 43 percent of total estimated costs, and revenues that would be lost by suppliers (and, to a lesser extent, no wastewater management agencies), approximately \$4.7 billion or 35 percent. The estimated cost of wastewater infrastructure improvements and other related infrastructure projects during that period is approximately \$1.6 billion or 12 percent of total estimated costs.

### **Creation or Elimination of Jobs within California**

The total number of jobs within the state is estimated to increase by approximately 18,000 in 2025. Increases in jobs statewide will range from 5,000 to 11,000 per year in the following years. The top industries experiencing increased employment are architectural, engineering, and related services; greenhouse, nursery, and floriculture production (including compost and mulch operations); and valve and fittings other than plumbing – mostly because of the increase in the demand for turf conversion to climate-ready landscapes.

### **Creation of New Businesses or Elimination of Existing Businesses within California**

The main businesses affected by the proposed regulation are suppliers. Because these are generally local monopolies, households and CII customers usually do not have a choice between their water service supplier and another one. Thus, the proposed regulation is not expected to cause the entry of new suppliers or the exit of existing ones.

Based on increased expenditures by suppliers on residential water use efficiency measures and CII measures, and also on increased expenditures by urban forestry and landscape management agencies, and wastewater management agencies, the top industries experiencing increased sales growth rates include greenhouse, nursery, and floriculture production (including compost and mulch operations); major household appliance manufacturing; valve and fittings other than plumbing; architectural, engineering, and related services; and watch, clock, and other measuring and controlling device manufacturing. Sales growth can be met by increases in the size of existing firms or the creation of new firms in these industries. For traditionally local and small scale, labor-intensive firms such as landscapers or nurseries, sales growth will probably encourage new small businesses. On the other hand, existing manufacturers of major household appliances and plumbing fixtures may expand production.

### **Competitive Advantages or Disadvantages for California Businesses**

The proposed regulation would not put in-state firms at a disadvantage. As noted, before, households and CII customers purchase water from their local water supplier, and they generally do not have a choice between their water service supplier and an out-of-state enterprise. Landscape services are labor-intensive and will likely be provided by existing California-based businesses. Products needed for residential and CII water conservation, such as laundry equipment and valve and fittings manufacturing, tend to be provided by sectors that already compete across state lines. Thus, the proposed regulation is not expected to affect the relative interstate competitiveness of California as a location for those industries.

### **Increase or Decrease in Investment in California**

The increased production by various businesses, due to increased spending by suppliers, households, urban forestry and landscape management agencies, and local wastewater management agencies, should be met through increased production by in-state companies. Landscape services will grow, and given that these are labor-intensive, it seems unlikely that out-of-state companies will displace local landscaping companies. Production and manufacturing in other growth industries, including greenhouse and nursery production, valve and fittings manufacturing, household laundry equipment, and plumbing fixture manufacturing, will experience growth as well, which should attract in-state producers. The growth of these firms will require investment in capital equipment and raw materials.

Additionally, as discussed above, local wastewater management agencies are expected to invest in wastewater infrastructure improvements, such as pipe replacement in wastewater collection systems, and other related infrastructure projects, amounting to approximately \$1.6 billion from 2025 to 2040. These investments in wastewater-related infrastructure will in turn increase production and manufacturing in other industries including fabricated pipe and pipe fitting manufacturing, and pump and pumping equipment manufacturing, which, again, should attract in-state manufacturers. The growth of these firms will require further investment in capital equipment and raw materials.

### **Incentives for Innovation**

Spending by suppliers is expected to spur innovation in certain areas. Given the noticeable increase in spending on landscape conservation programs, the Board anticipates that the industry will respond by developing new technologies and products, for example, new irrigation systems and products, new climate-ready landscapes, improved composting and mulch operations and processes, and by improving on existing installation processes. Many households will seek new low-cost climate-ready landscape strategies, and entrepreneurs who can supply products and services accordingly will grow. Additionally, leak detection equipment and infrastructure are growing and developing, and the increased spending by suppliers will hasten those developments.

### **Benefits of the Regulation**

As explained before, one of the benefits of the proposed regulation that can be quantified is the water savings to suppliers and their customers. As a result of the proposed regulation, suppliers will spend less to acquire water, and similarly, customers will spend less on their water bills. The benefits to suppliers from the CII performance measures also include avoided stormwater-related expenses. Upgrading to more efficient fixtures and appliances leads to both water savings and energy savings. In particular, because more efficient washers use less water than inefficient ones, less water needs to be heated, and less energy is used.

The proposed regulation is expected to yield benefits that are not possible to quantify given the existing data. Compliance with the proposed regulation likely will:

1. Reduce the overall pressure on the limited water resources that many sectors in California compete for and reduce the need to cut water use—in any sector—when there is a drought.
2. Free up suppliers' water for their future use.
3. Improve water quality, improve soils, and sequester more carbon.
4. Improve safety, such as reductions in over-irrigation, mosquito breeding pools and slip hazards.
5. Reduce some landscape maintenance costs.
6. Reduce state costs of disposing of organic materials that should not go to landfills by increasing demand for mulch.
7. Protect biodiversity and support ecosystems.

## **Department of Finance Comments and State Water Board Responses**

The SRIA was submitted to the Department of Finance (DOF) on March 13, 2023. DOF provided comments to the State Water Board on April 12, 2023. DOF generally concurred with the State Water Board's methodology in the SRIA and made three comments. The three comments, and the State Water Board's response to those comments, are as follows:

Comment 1: The version of the SRIA that DOF reviewed assumes that the estimated impacts will be not biased by the omission of water use data for the suppliers that did not provide the requested data, which account for about 11 percent of the affected population. However, if those water districts' water usage is significantly different, the estimated costs may be higher or lower. The SRIA must provide an analysis that shows the omitted suppliers have generally similar water usage patterns to the suppliers that provided data. For example, the SRIA can show that the omitted districts are generally consistent with the state average on publicly available characteristics that are correlated with water use.

Response to Comment 1: An analysis of omitted suppliers was added to the updated SRIA (see SRIA Appendix H). Twenty suppliers without available data had been omitted. The omitted suppliers are on average smaller (fewer than 10,000 connections) than the suppliers included in the least-cost analysis and represent less than 2 percent of all potentially affected connections. The omission of the suppliers, however, should not materially affect the findings in the SRIA. Using data on the number of connections for the 20 suppliers to extrapolate per-connection-year assumptions, present discounted values for residential cost and benefit were calculated. Residential cost and benefit would be approximately \$260 million and \$341 million, respectively, across all 20 suppliers and for the entire 2025-2040 period. These amounts represent approximately 2.5 percent of the combined residential cost and benefit estimated for all suppliers for which data were sufficiently available.

Comment 2: The version of the SRIA that DOF reviewed assumes that customers will apply an average use throttling (e.g., opening a faucet partially, rather than all the way) of 67 percent on their faucets and waterheads. If, instead, customers averaged 80 percent or 40 percent then the costs would change accordingly. The SRIA must provide evidence that the 67 percent assumption is the most accurate or provide a sensitivity analysis to show how the impacts may vary based on average throttling.

Response to Comment 2: An explanation of the 67 percent throttling assumption and supporting evidence was added to the updated SRIA (see SRIA Appendix D). Throttling assumptions were obtained from existing research on residential end use. More specifically, measured average flow rate for showerheads, bathroom faucets, and kitchen faucets was gathered from the residential end use studies' various data collection periods. This included data from: 1996 to 1998, 2005 to 2010, and 2010 to 2013. To calculate throttling rates, the measured average flow rate was then compared to the respective fixture standard during the data collection period. The calculated throttling rate ranged from 50 percent to 86 percent, with an average of 67 percent.

Comment 3: The version of the SRIA that DOF reviewed assumes that California energy costs from 2025 to 2040 will be equal to projected U.S. energy costs over the

same period despite acknowledging that historically energy prices have been more costly in the state than nationwide. The SRIA should either adjust the projected energy costs to account for this historical difference or justify the energy cost assumptions.

Response to Comment 3: The assumed projected U.S. energy costs were replaced in the SRIA with projected California energy costs obtained from the California Energy Commission, and the analysis was updated accordingly (see Energy Savings section of the SRIA). More specifically, annual energy price forecasts for natural gas and electricity for the 2025-2035 period were obtained from California Energy Commission's Energy Demand Forecasts (CEC 2021 and 2022 Integrated Energy Policy Reports). The estimated annual energy cost savings for residential customers of both privately-owned suppliers and publicly-owned suppliers were updated accordingly. Under the assumed California energy costs, the replacement inefficient clothes washers with more efficient clothes washers across suppliers' service areas would result in approximately \$49 million in energy savings in 2025 and increased energy cost savings thereafter, reaching approximately \$100 million in 2040.

### **COST IMPACTS ON REPRESENTATIVE PRIVATE PERSON OR BUSINESS**

[Gov. Code, § 11346.5(a)(9); Cal. Code Regs., tit. 1, § 4(a) and(b)]

#### **Typical Business**

To assess the direct cost impact on the typical regulated business (all regulated businesses are privately-owned suppliers), the Board analyzed the 67 privately-owned suppliers for which data were available. Combined, they serve approximately six million people statewide. For this analysis, a typical business is defined as a hypothetical privately-owned supplier with the average size and average attributes. The typical supplier thus defined has 22,000 service connections and serves approximately 92,000 people. The typical supplier would incur a direct cost of approximately \$7.5 million in 2025. In subsequent years, the typical supplier would incur direct costs ranging between \$1 million and \$5 million.

#### **Individual**

The proposed regulation applies to urban retail water suppliers only. Customers who elect to participate in rebate and incentives programs their suppliers may offer will incur upfront costs associated with the implementation of the residential water use efficiency measures. If an average of 38.9 million individuals are assumed to reside in the service areas of all suppliers in the 2025-2040 period, then, before rebates, the upfront expenses incurred by customers with the residential water use efficiency measures are approximately \$102.6 per person on average in 2025, and range between \$1.3 and \$7.7 per person on average, per year, in the following years.

### **BUSINESS REPORT**

[Gov. Code, § 11346.5(a)(11), § 11346.3(d)]

As a result of the proposed regulation, urban retail water suppliers likely will have to develop water reduction strategies, including rebate and other incentives programs, and submit annual progress reports. It was assumed that there will be ongoing administrative compliance costs of reporting. The annual reporting costs per supplier,

whether privately-owned or publicly-owned, was estimated to be approximately \$5,000, and is based on the annual cost of one eight-hour day each month for a typical engineer (the median California wage for a mechanical engineer is \$53.99 per hour as reported by the Employment Development Department). These work-hour estimates for the reporting costs were obtained based on outreach with suppliers across California and a review of conservation programs statewide. The State Water Board has concluded that it is necessary for the health, safety, or welfare of the people of the state that the regulation apply to businesses.

### **SMALL BUSINESS**

[Cal. Code Regs., tit. 1, § 4(a)]

Urban retail water suppliers are water companies (utilities) providing drinking water to the public and, pursuant to Government Code section 11342.610, are not small businesses.

### **CONSIDERATION OF ALTERNATIVES**

[Gov. Code, § 11346.5(a)(13)]

The Board must determine that no reasonable alternative it considered or that has otherwise been identified and brought to its attention would be more effective in carrying out the purpose for which the action is proposed, would be as effective and less burdensome to affected private persons than the proposed action, or would be more cost effective to affected private persons and equally effective in implementing the statutory policy or other provision of law.

The Board invites interested persons to present statements or arguments with respect to alternatives at the public hearing or during the written comment period.

### **ALTERNATIVES CONSIDERED BY THE BOARD**

The State Water Board considered two alternatives to the proposed regulation. The two alternatives were evaluated for costs and benefits, economic impacts, and cost-effectiveness relative to the proposed regulation, and both alternatives were rejected. A fuller discussion of Alternatives Considered by the Board can be found on pages 28-29 in the Initial Statement of Reasons.

### **FORMS OR DOCUMENTS INCORPORATED BY REFERENCE**

[Cal. Code Regs., tit. 1, § 20(c)(3)]

None.

## **STATE WATER BOARD CONTACT PERSONS**

[Gov. Code, § 11346.5(a)(14)]

Requests for copies of the proposed regulatory text, the Initial Statement of Reasons, subsequent modifications of the proposed regulatory text, if any, or other inquiries concerning the proposed action may be directed to:

Charlotte Ely  
Environmental Program Manager  
State Water Resources Control Board  
Email address: [charlotte.ely@waterboards.ca.gov](mailto:charlotte.ely@waterboards.ca.gov)

Karina Herrera  
Senior Environmental Scientist  
State Water Resources Control Board  
Email address: [karina.herrera@waterboards.ca.gov](mailto:karina.herrera@waterboards.ca.gov)

In the event Charlotte Ely and Karina Herrera are not available to respond to requests or inquiries, please contact:

Paola Gonzalez  
Environmental Scientist  
State Water Resources Control Board  
Email address: [paola.gonzalez@waterboards.ca.gov](mailto:paola.gonzalez@waterboards.ca.gov)

Climate and Conservation inbox  
[ORPP-WaterConservation@Waterboards.ca.gov](mailto:ORPP-WaterConservation@Waterboards.ca.gov)

Please identify the regulation by using the State Water Board regulation package identifier, “**Proposed Making Conservation a California Way of Life Regulation**” in any inquiries or written comments.

## **AVAILABILITY OF INITIAL STATEMENT OF REASONS, TEXT OF PROPOSED REGULATION AND THE RULEMAKING FILE**

[Gov. Code, § 11346.5(a)(16)]

The State Water Board has prepared and has available for public review an initial statement of reasons for the proposed regulation, all the information upon which the proposed regulation is based, the text of the proposed regulation, and all other required forms, statements, and reports. In order to request that copies of these documents or alternative formats of these documents be mailed or emailed to you, please write to or email the Contact Persons. Upon specific request, these documents will be made available in Braille, large print, or CD.



**AVAILABILITY OF CHANGED OR MODIFIED TEXT**

[Gov. Code, § 11346.5(a)(16)]

After holding the hearing and considering relevant comments received in a timely manner, the State Water Board may adopt the proposed regulation substantially as described in this notice. If the State Water Board makes modifications that are substantially related to the originally proposed text, the State Board will make the modified text – with changes clearly indicated – available to the public for at least 15 days before the State Water Board adopts the modified regulation. Any such modifications will also be posted on the State Water Board Web site. Please send requests for copies of any modified regulation to the attention of the contact persons provided above (“Contact Persons”). The State Water Board will accept written comments on the modified regulation for 15 days after the date on which they were made available.

**AVAILABILITY OF FINAL STATEMENT OF REASONS**

[Gov. Code, § 11346.5(a)(19)]

The State Water Board will prepare a final statement of reasons pursuant to Government Code section 11346.9 after final adoption of the regulation, and when ready will make the final statement of reasons available. A copy of the Final Statement of Reasons may be obtained from the contact persons or the State Water Board program webpage, listed in the next section.

**AVAILABILITY OF DOCUMENTS ON THE INTERNET**

[Gov. Code, § 11346.4(a)(6); § 11346.5(a)(20)]

Copies of this Notice of Proposed Rulemaking, the Initial Statement of Reasons, and the text of the regulation may be found on the [Rulemaking to Make Conservation a California Way of Life | California State Water Resources Control Board](#) page.

\_\_\_\_\_  
August 18, 2023  
Date

  
\_\_\_\_\_  
Courtney Tyler  
Clerk to the Board

DRAFT

October 4, 2023

State Water Resources Control Board

P.O. Box 100

Sacramento, CA 95812-0100

Attention: Honorable E. Joaquin Esquivel via Courtney Tyler, Clerk to the Board

Emailed to: [commentletters@waterboard.ca.gov](mailto:commentletters@waterboard.ca.gov)

Subject: Comment Letter – Proposed Making Conversation a California Way of Life Regulation

Dear Chair Esquivel:

On behalf of the Board of Directors and as allowed in the Notice of Proposed Regulatory Action, the North Marin Water District (NMWD) is submitting these written comments in response to the proposed regulatory action related to California Code of Regulations, title 23, division 3, chapter 3.5, article 1, sections 965-975 and 978 (“Making Conservation a California Way of Life”).

As a member agency of the Sonoma-Marín Saving Water Partnership (Partnership), we have been on the leading edge of water use efficiency (WUE) program implementation over the last 25 years, achieving a 43 percent reduction in regional per capita water use in that time. During this 25-year period, the consideration of WUE programs to implement has been coordinated regionally to inform the best options for our agency and other Partnership agencies based on cost-effectiveness and the likelihood of their success to achieve our agency’s demand reduction goals considering staff and financial resources available and a ready market for the programs. The programs we choose to implement may not exactly match the programs of another Partnership agency that has its own unique considerations. Each agency of the Partnership also contributes funding proportionally for separately run regional outreach programs by our wholesaler, Sonoma Water (Sonoma County Water Agency). This proportionality reflects the diversity of water provider sizes in the Partnership and ability to pay, from very small (< 3,000 connections and < 1 FTE position in conservation) to medium (> 61,000 connections for the largest utility and 7 FTEs), giving each agency an opportunity to contribute to and benefit from a broader regional approach to efficiency messaging in support of retailer run programs. Note that NMWD has one FTE and one part-time position to handle all WUE programs as well as public communications.

Regarding the proposed regulation and our shared goal of continued efficiency gains, the most suitable outcome would enable us to continue to utilize local decision-making for cost-effective and achievable programs, as was done over these last 25 years through the Partnership and back to 1989 for NMWD directly when we implemented the very first lawn removal incentive program called “Cash for Grass” (a program now widely implemented by many other water providers). It is our belief that the goals of the 2018 legislation can be achieved using the above time-tested approach, but to do so the proposed regulation should reconsider included mandates for new programs and associated work that does not provide proven customer water savings and cost-effectiveness. The regulation must also reconsider setting outdoor efficiency standards that have an unsound basis for achievability and that do not recognize the limitations of agencies to rapidly and affordably affect consumer choice and behavior to retrofit existing landscapes, including water features such as pools. It is imperative that we be able to maintain the viability of urban landscapes and their benefits simultaneously with continued efficiency gains.

We are also concerned that the proposed regulation focuses too much of our efficiency efforts to fill state data gaps, which adds costs and takes time away from our focus on programs that save water, not to mention a strain on our limited staff resources. The proposed regulation should recognize and remove reporting tasks that are duplicative and that put the burden on water providers to differently parse, aggregate, and disseminate water use information already provided to our customers during billing or included in numerous required reports to state agencies.

Lastly, we are concerned that the proposed regulation undermines the legislative intent to provide variances that recognize the unique characteristics of water service areas or long-term investments in recycled water for potable offset and direct potable reuse. Although it is understandable for a regulation to require agencies requesting variances to demonstrate validity, the proposed regulation effectively removes variances as viable options for many agencies by adding on secondary and unrelated tasks to qualification, and by requiring annual reporting and substantiation of characteristics that do not significantly change from year to year. Our service area characteristics are lasting and real; our long-term investments and diversification of water supplies are lasting and real, and so should be our options to set an Urban Water Use Objective that takes into consideration the challenges we face, and that provides credit for forward-thinking development of recycled water for potable offset and reuse. The variances should be accessible to all regulated water providers, not simply to those with the greatest resources.

We are and will continue to be strong proponents of Making Conservation a California Way of Life and wish to contribute to a successful outcome as the legislation envisioned and as was negotiated over the last several years. We consequently request that State Water Board staff work closely with us to better understand our challenges, to minimize efforts without clear attainment of water savings, to balance state needs against the creation of adverse financial consequences to our customers, and to adhere to the legislated goals and State Water Board authority provided. This is a very important in light of other new water quality regulations and the additional cost and staff resources needed to comply with them.

Further, we request that the State Water Board direct staff to make improvements to the proposed regulation based on the points submitted by the Association of California Water Agencies, which has been coordinating a response that details the specifics of our concerns touched on here. In doing so, we can continue to make rapid progress in reducing urban water demands while prioritizing continued water affordability and the health of our urban landscapes.

Sincerely,

Anthony Williams, P.E.  
General Manager

8

**MEMORANDUM**

To: Board of Directors

October 3, 2023

From: Tony Williams, General Manager 

Subj: Consideration of Approval of First Amendment to the 1985 Agreement Between North Marin Water District and Marin County Flood Control and Water Conservation District

t:\gmlbod memos 2023\10-3-23 meeting\mcfcd stafford dam amendment\10-3-23 bod memo mcfcwcd\_nmwd staff agreement.docx

**RECOMMENDED ACTION:** Approve First Amendment to the 1985 Agreement Between North Marin Water District and Marin County Flood Control and Water Conservation District Providing for the Installation and Operation of Facilities to Provide Temporary Flood Control Storage in Stafford Reservoir for New Hydrologic and Hydraulic Modeling

**FINANCIAL IMPACT:** \$147,378 (incl. 5% contingency, available in FY24 Budget)

Background

In the early 1980s, the North Marin Water District (District) identified the need to make improvements to Stafford Dam in order to provide a higher level of protection and resiliency from extreme rainfall runoff events within the upper watershed above the dam. These improvements included raising the dam crest approximately 8 feet and constructing a new spillway just downstream of the original spillway. The dam raising provided more “freeboard” or the exposed height of the dam above a maximum lake level. The new spillway provides more hydraulic capacity and has a unique design that includes a lower “control crest” or “notch” measuring 10 feet wide by 3 feet high in the center of the main spillway which is 32 feet wide. This control crest helps attenuate initial spillway flows thereby delaying and reducing the potential flooding impacts downstream within Novato Creek.

Because of the flood control benefit, the District entered into an Agreement on May 29, 1985 with the Marin County Flood Control & Water Conservation District (Flood District) to jointly fund the improvements to the dam. The Agreement also established a long-term partnership and obligations of each agency, including maintaining and cost-sharing a certain level of liability insurance. The Agreement also restricts the District from modifying the dam or the spillway that may diminish the flood control benefit. A copy of the Agreement is provided as Attachment 1. It is important to note that there isn’t a designated flood control storage in Stafford Lake and there are no operational obligations to operate the dam’s outlet pipeline and associated valves for flood control purposes, just ensuring the passive flood benefits of the spillway design. Stafford Dam’s primary function is water storage for domestic water supply.

### Adjustable Spillway Gate

The Stafford Dam Adjustable Spillway Gate (ASG) Project was identified as a potentially viable alternative for increasing local water supply in the 2022 Local Water Supply Enhancement Study (Study). Key staff of the Flood District were involved during the preparation of the Study, especially the sections related to stormwater capture and storage at Stafford Lake. The ASG Project would increase the storage capacity in Stafford Lake via installation of an adjustable gate across the spillway notch. The gate, when fully raised would allow the District to store an additional 3 feet of water in Stafford Lake, which equates to approximately 726 acre-feet of increased storage volume. This volume of water could then be treated at the nearby Stafford Treatment Plant during the plant's operational period in the months when the District faces its peak demands. The Project's design development and environmental review includes understanding the impacts of the proposed gate on the dam and spillway, as well as Stafford Lake is being evaluating. This evaluation includes geotechnical analysis of the dam structure from a stability and seepage standpoint as well as a detailed hydrologic and hydraulic analysis of the Novato Creek watershed above the dam, subsequent inflows into the lake, and resulting impacts to the dam.

### Proposed Amendment

The proposed ASG Project would modify the 1985-era spillway both physically and the operability, therefore the provisions of the 1985 Agreement govern any actions by the District. Since initiation of the ASG Project, the District has been in contact with key Flood District staff and have discussed the best approach to completing the necessary hydrologic and hydraulic study described above. The Flood District has a sophisticated hydraulic model (HEC-RAS) of the Novato Creek extending from the dam to the mouth, as well as a hydrologic model of the watershed (HEC-HMS). The Flood District also has more engineering expertise in hydrology and hydraulics (H&H) compared to District staff, and regularly engages with engineering consultants to perform H&H analysis throughout eastern Marin County, including the Novato Creek watershed. The proposed First Amendment to the 1985 Agreement identifies the need for the hydrologic and hydraulic study in light of the proposed spillway modification via the ASG Project as well as joint participation by each District and associated cost sharing as described in the First Amendment document (Attachment 2).

After a series of meetings with ESA, one of the Flood District's consultants, a detailed scope of services was developed that includes data collection and review of the existing models, development of various hydrologic events, and the hydraulic modeling of these events in relation to the dam's spillway, outlet pipe, and the ASG Project. The work will include a determination of a Probable Maximum Flood (PMF) as well as analysis of future extreme events at different

recurrence intervals that reflect the impacts of climate change out to the year 2100. A copy of ESA's scope of work is provided as Attachment 3 and would become Exhibit A to the Amendment. The District's cost of this work is \$147,378 (cost proposal of \$140,360 shown in Attachment 3 plus 5% contingency of \$7,018), which represents all of ESA's Phase 1 work and some contingency. Note that Phase 2 of the scope is for the Flood District's benefit and the cost associated with that future work will be paid solely by the Flood District.

It is anticipated that the Amendment will be presented to the Flood District Board of Supervisors at their November 7, 2023 regular meeting for consideration and approval. The Phase 1 work by ESA will be managed by the Flood District at their cost and will include coordination with District staff, and Flood District staff will serve as technical reviewers and advisors at no cost to the District.

#### RECOMMENDATION

That the Board approve First Amendment to the 1985 Agreement Between North Marin Water District and Marin County Flood Control and Water Conservation District Providing for the Installation and Operation of Facilities to Provide Temporary Flood Control Storage in Stafford Reservoir for new hydrologic and hydraulic modeling.

#### ATTACHMENTS:

1. Original 1985 Agreement
2. Draft First Amendment
3. ESA Scope of Services Proposal, Exhibit A to the First Amendment

AGREEMENT BETWEEN NORTH MARIN WATER DISTRICT AND  
MARIN COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT  
PROVIDING FOR THE INSTALLATION AND OPERATION OF FACILITIES TO  
PROVIDE TEMPORARY FLOOD CONTROL STORAGE IN STAFFORD RESERVOIR

This agreement is made on May 29, 1985, by and between the North Marin Water District, herein called "Water District," and the Marin County Flood Control and Water Conservation District, herein called "Flood Control District."

**WHEREAS:**

1. The Water District desires to enlarge the spillway capacity of Stafford Dam to accommodate the probable maximum storm as same has been determined by the State of California, Division of Safety of Dams; and

2. The Flood Control District desires to increase flood control protection for lands susceptible of flooding adjacent to Novato Creek; and

3. Both the Water District and the Flood Control District have mutually determined that a joint project involving raising Stafford Dam and modifying the existing spillway facility will best meet the needs of the public and achieve both the desired flood control needs and spillway capacity.

**NOW, THEREFORE, THE PARTIES DO MUTUALLY COVENANT AND AGREE:**

1. The project shall consist of raising Stafford Dam and modifying the existing spillway as shown in the "Plans and Contract Document and Specifications for Stafford Flood Control Project, Job No. 18269.00, May 1985, North Marin Water District including Addendum No. 1 dated May 21, 1985." Also included as part of the project are certain mitigation measures concerning the Indian Valley Golf Course and the County of Marin Stafford Lake Park. These are described in the "Initial Study" for the project prepared by the Water District and dated April 2, 1985.

2. The estimated cost of the project is:

a. Engineering, Design and Surveys ----- \$ 101,000



b. Construction	
(1) Main Contract -----	1,666,933
(2) Detour and Related costs -----	24,000
(3) Mitigations (Park and Golf Course) -----	<u>41,600</u>
Construction Cost Subtotal -----	1,732,533
c. Engineering During Construction	
(1) Engineering Consultant -----	121,440
(2) Water District Engineering -----	<u>11,650</u>
Engineering Subtotal -----	133,090
d. Project Contingency -----	<u>181,627</u>
Total Estimated Cost -----	<u>\$2,148,250</u>

3. Actual project cost will be allocated as follows:

<u>Item</u>	<u>Water District</u>	<u>Flood Control District</u>
Mitigation Measures (Item 2.b.(3))	0%	100%
All other Project Costs	50%	50%

4. The Water District shall be responsible for constructing the project and shall make and administer the contracts therefor. The Flood Control District shall have full access to the construction site and shall review and approve all change orders.

5. The Flood Control District shall by May 28, 1985, provide the Water District assurance in a form satisfactory to the Water District that \$1,000,000 is available on demand to the Water District. The Water District will disburse funds to accommodate the cash flow requirements of the project and will promptly submit invoices periodically to the Flood Control District in accordance with the cost allocation described in paragraph 3 and based on payment demands submitted by contractors and/or force account work or engineering work performed by the Water District. The Flood Control District shall promptly remit funds to the Water District covering such invoices. Prior to payment of retention funds on the main construction contract, the Water District

shall present a full accounting to the Flood Control District for review, audit and approval. This report shall include an analysis of interest earned or interest costs incurred during construction as a result of the time of receipt of Flood Control District payments and include a refund or invoice as appropriate for same. The Water District shall furnish to the Flood Control District on the 10th day of each month a detailed report of expenditures with appropriate documentation and a forecast of costs for the balance of the project.

6. All facilities installed pursuant to this agreement shall become the property of and be operated and maintained by the Water District. The parties acknowledge that the flood control features designed into said facilities will operate automatically. By entering into this agreement, the Water District does not in any way agree to yield any of the storage capacity existing prior to this agreement within the lake created by Stafford Lake Dam for flood control purposes. Furthermore, there shall be no obligation on the Water District to operate for flood control purposes any of the valves on pipelines which drain Stafford Lake. The Water District shall not subsequently modify Stafford Dam or the spillway in any way which will diminish the flood control storage created by construction of the project described by this agreement.

7. To the extent that increased water elevations resulting from the facilities installed pursuant to this agreement cause a slide or slides or any debris or maintenance problems on lands surrounding Stafford Lake, the Flood Control District shall be fully responsible for correcting such problems. The only potential problem area known at the time of execution of this agreement is the slide under the bike path near Novato Boulevard.

8. The Water District shall increase its umbrella liability insurance coverage from an existing amount of \$5,000,000 per occurrence to a new amount of \$10,000,000 per occurrence, and adjust this higher level of insurance coverage in the future as a function of increased or decreased valuation of the dollar. The Flood Control District

shall annually pay the Water District upon presentation of invoice the incremental cost of this higher level of insurance coverage. The incremental cost shall be determined by quote received by the Water District for the higher adjusted level of insurance provided for herein and an umbrella value equal to one-half of that amount. The Water District shall have the Flood Control District added as an additional insured on each of its policies of insurance for all liability in any way arising out of the flood control facilities at Stafford Dam and flood control storage provided in Stafford Lake which result from the project.

9. The Flood Control District agrees to indemnify the Water District from any "ultimate net loss" as defined in the policies of insurance covering the Water District, and any engineering, administrative, legal and overhead expenses hereinafter called office expenses incurred by the Water District in connection with such "ultimate net loss," only to the extent that said ultimate net loss or office expenses are not covered by said policies of insurance (i.e. the Water District's deductible or self-insured retention and judgments in excess of policy limits) and only for such ultimate net loss and office expenses as is determined by a trier of fact to be the proximate result of the flood control facilities at Stafford Dam and flood control storage provided in Stafford Lake which result from the project. In the event that the Water District claims reimbursement for ultimate net loss and office expenses for claims or lawsuits not proceeding to judgment by a trier of fact, then the question of whether such costs are reimbursible as arising from the flood control facilities at Stafford Dam and flood control storage provided in Stafford Lake which result from the project shall be determined by good faith negotiation between the Water District and the Flood Control District or, in the absence of determination by agreement, shall be submitted to a court of law for determination by way of an action for declaratory relief.

10. This agreement shall continue in effect for the life of Stafford Dam or until such time it is amended by mutual agreement of the parties hereto. This agreement

will not be assignable by either party except with the prior written consent of the other party. This agreement shall bind and benefit the successors and assigns of the respective parties.

IN WITNESS WHEREOF, the parties have executed this agreement.

NORTH MARIN WATER DISTRICT

*Gregory A. Amadori*  
President

ATTEST:

*Norma B. Morris*  
Secretary

(Seal)

MARIN COUNTY FLOOD CONTROL  
AND WATER CONSERVATION DISTRICT

*Robert B. Stackwell*

ATTEST:

*Van Gillespie*  
County Clerk

(Seal)

**FIRST AMENDMENT TO AGREEMENT BETWEEN NORTH MARIN WATER DISTRICT AND  
MARIN COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT PROVIDING  
FOR THE INSTALLATION AND OPERATION OF FACILITIES TO PROVIDE TEMPORARY  
FLOOD CONTROL STORAGE IN STAFFORD RESERVOIR**

This Amendment (Amendment) to the Agreement Between North Marin Water District and Marin County Flood Control and Water Conservation District Providing for the Installation and Operation of Facilities to Provide Temporary Flood Control Storage in Stafford Reservoir (Agreement) is made on \_\_\_\_\_, 2023, by and between the North Marin Water District (Water District) and Marin County Flood Control and Water Conservation District (Flood Control District).

Section 1: Recitals.

- A. On May 29, 1985, the parties entered into the Agreement pursuant to which the parties entered into a joint project to raise Stafford Dam and modify Stafford Dam's spillway facility.
- B. Pursuant to the Agreement, Water District was responsible for constructing the project and all facilities installed would become the property of and operated and maintained by Water District.
- C. On December 17, 1985, Water District completed the "Stafford Flood Control and Spillway Project" Job No. 1-8269.00 as referenced in Section 1 of the Agreement and Water District has maintained and operated the facilities pursuant to the Agreement.
- D. Water District is evaluating the Stafford Dam "Adjustable Spillway Gate" project (ASG project) which would consist of installation and operation of a gate within the control crest section of the existing spillway (also known as the "spillway notch"). The gate would be operated to maximize water supply storage while providing flood control benefits as reasonably possible.
- E. Water District is requesting technical assistance from Flood Control District in the development of hydrologic and hydraulic modeling and subsequent precipitation and flood scenario evaluations for the ASG project's conceptual design, including impacts from extreme climate change induced events within the Novato Creek watershed.
- F. The parties desire to amend the Agreement to allow Water District and Flood Control District to collaborate on hydrologic and hydraulic modeling efforts under the conditions specified below solely for the purpose of assisting with the feasibility and conceptual design of the ASG project.

Section 2: Terms.

- A. Amendment to Agreement: The Agreement will have the terms as set forth in the Agreement unless expressly modified by this Amendment.
- B. Section 1 of the Stafford Reservoir Agreement is hereby amended to add the following language at the end of the current paragraph:

**Raising of Stafford Dam and the modification of the spillway under the Stafford Flood Control Project was completed on December 17, 1985.**

- C. Section 6 of the Agreement is amended to add the following language at the end of the current paragraph:

**The design of an adjustable gate installed within the 10-foot by 3-foot control crest section of the Stafford Dam spillway is being evaluated and a hydrologic and hydraulic analysis shall be conducted to understand the changes to the water supply and flood control characteristics of the existing reservoir and dam spillway.**

- D. The following is added as Section 11 to the Agreement:

11. The hydrologic and hydraulic analysis shall be accomplished in the following manner:

- a. Flood Control District shall be responsible for selecting and managing a technical consultant capable of performing the required hydrologic and hydraulic modeling and evaluations.
- b. The scope of the needed hydrologic and hydraulic modeling and evaluations pertaining to the proposed ASG project is provided in Exhibit A, as Phase 1 of the scope of work. Water District shall be responsible for the consultant's cost of the Phase 1 work in the amount of \$147,378, which includes the Phase 1 cost of \$140,360 as shown in Exhibit A, plus a 5% contingency amount of \$7,018. Flood Control District will be responsible for any and all costs associated with its own labor and expenses related to managing the consultant, including but not limited to, procurement, administration, and technical review of the consultant's deliverables and all of Phase 2 of the work. The cost of Phase 2 work, provided in Exhibit A, is \$26,770.
- c. Water District shall reimburse Flood Control District within 30 days upon receipt by the Water District of an acceptable invoice from Flood District consultant invoice attached as supporting documentation.

The parties agree that except as expressly provided herein, all terms and conditions of the Agreement are incorporated into this Amendment.

IN WITNESS WHEREOF, the parties hereto have executed this Amendment as of the date set forth above.

North Marin Water District

Marin County Flood Control and  
Water Conservation District

\_\_\_\_\_  
Rick Fraites  
President, Board of Directors

\_\_\_\_\_  
Stephanie Moulton-Peters  
President, Board of Supervisors

REVIEWED AS TO FORM:

ATTEST:

\_\_\_\_\_  
Jenna Brady  
District Counsel

ATTEST:

\_\_\_\_\_  
District Secretary

\_\_\_\_\_  
County Clerk



180 Grand Avenue  
Suite 1050  
Oakland, CA 94612  
510.839.5066 phone  
510.839.5825 fax

esassoc.com

ATTACHMENT 3

# Scope & Cost Proposal

date July 28, 2023

to Tony Williams  
North Marin Water District (NMWD)

cc Roger Leventhal  
Marin County Flood Control District

from James Gregory P.E., ESA

subject **Stafford Lake and Novato Creek Hydrologic and Hydraulic Evaluation**

ESA has developed the following scope, schedule, and budget estimate to support NMWD with evaluating hydrology and hydraulics at Stafford Lake and downstream Novato Creek. This scope assumes that the Marin County Flood Control District will participate in reviewing the approach and deliverables and guiding future applications for the proposed modeling such as integrating radar rainfall data into the models for flood forecasting.

We understand that NMWD is in the process of developing a project to increase the storage capacity of the lake by modifying the spillway. As part of this project, NMWD has identified the need to develop updated extreme event hydrology to evaluate the performance of the existing and proposed spillway under present and future climate conditions. Recognizing the potential for future expanded applications of this work, the scope is divided into two phases. Phase 1 includes a review of relevant data, models, and studies (Task 1), characterization of extreme event hydrology including scenarios accounting for climate change (Task 2), hydrologic and hydraulic modeling analysis (Task 3), project documentation (Task 4), and Phase 1 project management and meetings (Task 5). Phase 2 includes future model uses including integration with radar rainfall data to improve model calibration and support flood forecasting (Task 6) and future updates to the model geometry data (Task 7).

## Phase 1 – Flood modeling

### Task 1 – Data collection and review

ESA will work with NMWD to collect relevant reports and data to support analyses in the subsequent tasks. We will review reports and data already shared by NMWD and identify if any further information would be relevant to the analysis.

ESA has access to a recent hydrologic (HEC-HMS) model of the Novato Creek watershed which contains Stafford Lake and the dam structure. We also have a recent hydraulic (HEC-RAS) model of the Creek from the spillway outlet to the mouth. We will review these models for data gaps and identify any further needs prior to conducting modeling analysis. At this time, we are not aware of any significant data gaps; however, if any are



identified that would require further scope, ESA will inform NMWD and discuss options for augmenting the scope.

**Deliverables:** Summary of information reviewed, and pertinent details included as part of the project report in Task 4.

## Task 2 – Characterization of extreme event hydrology

A range of potential extreme events will be analyzed to evaluate the flood dynamics of Stafford Lake and Novato Creek. We propose developing hydrologic scenarios for the following events:

- **Probable Maximum Flood (PMF)** - Per a 1985 design report, the Stafford Lake dam was designed using a Probable Maximum Precipitation (PMP) and PMF developed by the California Division of Safety of Dams (DSOD). ESA will develop an updated PMF following methods and datasets described in Hydrometeorological Reports (HMRs) 58 and 59 developed by NOAA in 1999. These reports are the most recent PMF standards for California.
- **Recurrence Interval (RI) events** – ESA will analyze the 10-, 50-, 100-, and 500-year events to provide insight into the flood dynamics of the system under a range of conditions. This analysis can also support other flood analyses such as those outlined by FEMA's National Flood Insurance Program.
- **Sequential Floods** – ESA will develop hydrologic scenarios reflecting the flood potential under sequential large magnitude events typical of atmospheric river (AR) events. We will develop three scenarios reflecting likely combinations of sequential events.
- **Extreme events under climate change** – ESA will develop future conditions scenarios reflecting the impact of climate change on extreme hydrology. We propose analyzing the PMF and RI events for mid-century (year 2100) under high emissions and end of century (year 2100) under medium-high and high emissions. We will use the most recent and highest resolution downscaled climate model data available for California<sup>1</sup> to estimate changes in PMP and 100-year rainfall under these climate change scenarios. Events will be characterized using the median of the climate model ensemble. As there is uncertainty in the climate models, we recommend including one scenario for the PMP and 100-year rainfall at 2100 reflecting the upper end of the climate model distribution (referred to in this scope as the E++ scenario).

These events will be developed to support hydrologic and hydraulic modeling of the system as described under Task 3.

**Deliverables:** Inputs to hydrologic model for Task 3. Summary of methods, assumptions, and results for characterizing extreme event hydrology included in report under Task 4.

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<sup>1</sup> In May 2023, the Scripps Institute of Oceanology released a 3km resolution California-specific dataset for CMIP6 emissions scenarios (the latest scenario set from the IPCC). The dataset is referred to as LOCA version 2 for the California domain and was developed to inform California's fifth statewide climate assessment.

## Task 3 – Hydrologic and hydraulic modeling

ESA will adapt existing hydrologic (HEC-HMS) and hydraulic (HEC-RAS) models of the Stafford Lake and Novato Creek system to analyze the extreme events developed in Task 2. The existing models will be updated to the latest versions of HMS and RAS. The models will be dynamically linked (aka coupled) to enable running scenarios in a combined HMS/RAS flood model. Routing for all flows downstream of the dam will be handled in the RAS model, allowing for more accurate characterization of flow hydrographs.

The proposed spillway modification project is an adjustable gate which is intended to be lowered in advance of an extreme event. Thus, we assume the spillway will be modeled in its current condition for all hydrologic scenarios described in Task 2. To understand the relative impact of the proposed spillway on potential flood dynamics, we will also analyze the PMF for one scenario with the spillway gate raised and add in the existing 30” outlet pipe to the model as another way to lower water levels. A previous analysis by NMWD showed that it could release 140 cfs at elevation 180’ and 110 cfs at elevation 165. This study plus as-builts of the outlet pipe will be provided to ESA to develop a discharge curve for the outlet pipe.

We will develop a rating curve relating reservoir stage and spillway discharge for the condition with the gate raised to analyze this scenario. As the focus of this modeling is on downstream flood dynamics, we assume that the flow leaving the spillway is equal to the flow entering the natural channel downstream of the spillway channel. Modeling the detailed flow dynamics within in the spillway channel is beyond the level of detail needed for this study but could be added for future model applications.

A summary of proposed scenarios is provided in Table 1. There is a total of 17 scenarios for which the coupled HMS/RAS model will be run. Results, including discharges into and out of the lake, and downstream flood extents, will be summarized in the project report (Task 4).

**Table 1. Proposed model scenarios.**

Flow scenario	Time horizon	Spillway configuration	Climate condition
PMF	Present day	Present (gate lowered)	Present day
PMF		Gate raised	
10yr			
50yr			
100yr			
500yr		Present (gate lowered)	
Sequential events (scenario 1)			
Sequential events (scenario 2)			
Sequential events (scenario 3)			
PMF		2050	
100yr			
PMF	Medium-high emissions		
100yr			
PMF	2100	Present (gate lowered)	High emissions
100yr			
100yr			
PMF			

**Deliverables:** Summary of methods, assumptions, and results of the modeling included in report under Task 4. Digital copy of model input and output files.

## Task 4 – Project report

A technical report will be developed documenting the data compilation, hydrologic analysis, modeling methods, and key results. The report will include a project overview and background, description of the data and models used, details on the methodology for developing the hydrologic scenarios, overview of the modeling approach and simulations conducted, and summary of the key results characterizing flood dynamics on the system for each scenario. The report will document the methods and updated results of the PMF analysis. The report will synthesize the results across multiple scenarios to compare the effects of varying hydrologic conditions and provide technical interpretation of the modeling outcomes.

A draft version of the report will be provided to NMWD and MCFCD. Following one round of consolidated comments, ESA will revise the report to address any comments and finalize the report.

**Deliverables:** Draft project report. Comments and responses summarized in a spreadsheet. Final project report. All modeling files with an index of plans and runs.

## Task 5 – Phase 1 project management and meetings

The following meetings are proposed to guide the work:

- Kickoff meeting (NMWD, ESA, Marin County Flood Control District)
- Meeting to discuss data review (Task 1) and approach to technical tasks (NMWD, ESA)
- Meeting to discuss results of hydrologic scenarios (Task 2) (NMWD, ESA)
- Meeting to discuss draft modeling results (Task 3) (NMWD, ESA)
- Meeting to discuss final modeling results (Task 3) and report format (Task 4) (NMWD, ESA)
- Meeting to discuss draft project report and comments (Task 4) (NMWD, ESA, Marin County Flood Control District)
- Final project meeting and next steps

Time has also been included for general project management including invoice review and preparation. Quality control reports will be included as part of this task and appended to the project report.

**Deliverables:** Meeting minutes. Progress reports with invoices.

## Phase 1 Schedule

We estimate that the work will be completed in approximately 30 weeks assuming the following durations for each task:

Task 1 - Data Collection and Review (4 weeks): Weeks 1-4

- Kickoff meeting – Week 1
- Data review/technical approach meeting – Week 4

Task 2 - Extreme Event Characterization (8 weeks): Weeks 3-11

- Hydrologic scenario meeting – Week 10

Task 3 - Hydrologic and Hydraulic Modeling (12 weeks): Weeks 8-20

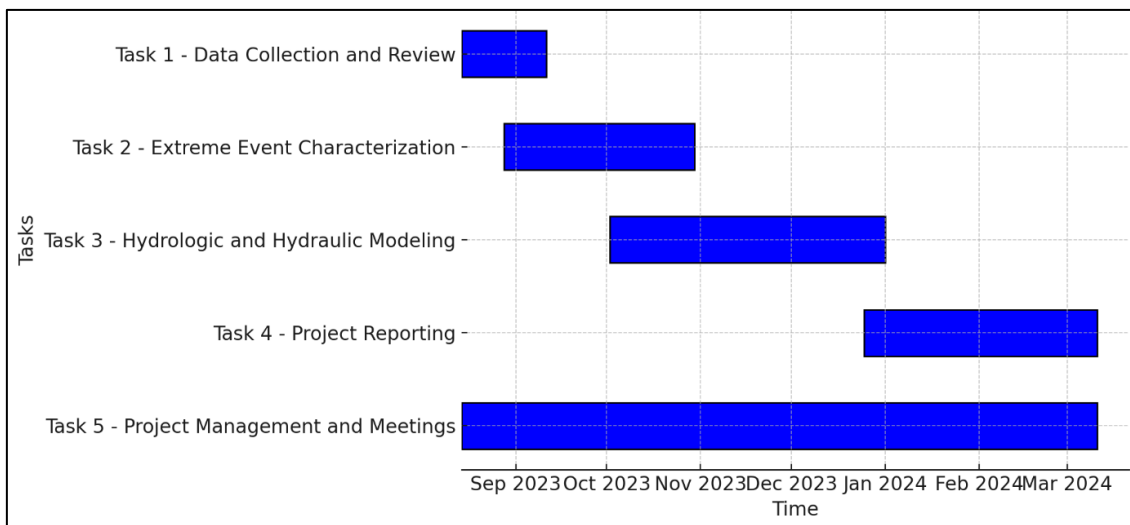
- Draft modeling results meeting – Week 16
- Final modeling results meeting – Week 20

Task 4 - Project Reporting:

- Draft report and meeting: Week 24
- NMWD Review period (2 weeks): Weeks 25-26
- Final report and meeting: Week 30

Task 5 - Project Management and Meetings: Ongoing Weeks 1-30

The task periods are shown in the chart below assuming a start date around mid-August. Task durations are estimates and the timeline may shift depending on the specific needs of the project.



## Phase 2 – Extended applications

### Task 6 – Radar rainfall model integration

The coupled HMS/RAS model will be set up to easily take in radar rainfall products and produce model outputs. ESA will work with Marin County Flood Control District and other bay area water agencies involved in developing products under the Advanced Quantitative Precipitation Information (AQPI) system currently in development. The AQPI implementation is being led by Sonoma Water. The HMS and RAS model software have existing optionality to take in gridded rainfall products including radar from a range of sources and data in a range of formats. ESA will work with the agencies leading the AQPI development to obtain sample rainfall data files and documentation on the expected data format and structure. The HMS and RAS models will then be configured to directly ingest the radar rainfall inputs from AQPI. The model will be set up in a flexible manner to accommodate potential future changes to the AQPI data format if needed.

A short technical memorandum (assuming 2-3 pages) will be developed documenting the model setup and incorporation of the AQPI data. The memo will discuss future applications enabled by the radar rainfall linkage, such as detailed model calibration and real-time flood forecasting. ESA will develop a draft report and, following one round of comments consolidated by Marin County Flood Control, will address comments, and submit a final draft.

ESA will support and participate in a meeting with NMWD, Marin County Flood Control, Sonoma Water, and other relevant agencies and stakeholders to present the process and results of the AQPI data integration. Documentation for this task and the stakeholder meeting will provide a foundation to guide future uses of the AQPI network to inform hydrologic analysis and decision-making for water agencies in the region.

### Task 7 – Future model updates

Future updates to the model geometry to improve accuracy could include the following:

- Incorporation of updated bathymetric survey data for Stafford Lake – We understand that NMWD collects bathymetric surveys of the lake approximately every ten years. This data could be incorporated into the model to reflect the latest topographic condition.
- Updated topographic channel surveys on the downstream creek – The downstream natural channel on Novato Creek will change shape over time as flows erode and deposit sediment. Locations where change has been observed or where there is the potential for flooding could be resurveyed and updated in the model. Parts of the model where topographic detail is sparse could be augmented with additional cross-section surveys.
- Incorporation of the spillway channel and road crossings at Indian Way into the hydraulic model – For the Phase 1 scope, detailed hydraulics in the spillway channel are not necessary for evaluating downstream flood dynamics. However, if NMWD identifies a need to evaluate flow hydraulics specific to the spillway it could be added to the model using survey or as-built data.
- Model calibration for observed events incorporating radar rainfall

A budget has not been included for this task as there are a range of possible updates that could be included. ESA can scope this task in detail at the request of NMWD or Marin County Flood Control.

# Proposed cost

ESA has developed a cost estimate for the two phases of work. Total estimated cost for **Phase 1** is **\$140,360**. Total estimated cost for **Phase 2** is **\$26,770**. Note that no budget has been specified for Task 7 as potential model updates would be informed by the Phase 1 work and the details scoped at a later date.

Task #	Task Name/Description	Labor Category				Total Hours	Labor Price
		Principal Consultant 4	Managing Consultant 3	Senior Consultant 4	Consultant 6		
		\$282	\$223	\$200	\$159		
<b>Phase 1</b>	<b>Flood modeling</b>						
1	Data collection and review		16		12	28.00	\$ 5,480
2	Characterization of extreme event hydrology	16	40	12	168	236.00	\$ 42,540
3	Hydrologic and hydraulic modeling	20	40	8	160	228.00	\$ 41,600
4	Reporting					-	\$ -
	- Draft	16	40		60	116.00	\$ 22,970
	- Final	12	16		24	52.00	\$ 10,770
5	Project management and meetings	16	28	6	6	56.00	\$ 12,910
<b>Phase 2</b>	<b>Extended applications</b>						
6	Radar rainfall model integration	12	40	0	80	132.00	\$ 25,020
7	Future model updates						
Total Hours			156	368	52	924	<b>848</b>
<b>Total Labor Costs (Phase 1)</b>		<b>\$ 43,992</b>	<b>\$ 82,064</b>	<b>\$ 10,400</b>	<b>\$ 146,916</b>		<b>\$ 136,270</b>
<b>Total Labor Costs (Phase 2)</b>		<b>\$ -</b>	<b>\$ 1,313,024</b>	<b>\$ -</b>	<b>\$ 1,762,992</b>		<b>\$ 25,020</b>
Percent of Effort - Labor Hours Only		18.4%	43.4%	6.1%	109.0%	176.9%	
Percent of Effort - Total Project Cost		31.3%	58.5%	7.4%	104.7%		97.1%

PROJECT COST ESTIMATE SUMMARY TABLE		Phase 1	Phase 2
ESA Labor Cost		\$ 136,270	\$ 25,020
ESA Labor Technology and Data Management Fee	3%	\$ 4,090	\$ 750
<b>Total</b>		<b>\$ 140,360</b>	<b>\$ 25,770</b>

9



**MEMORANDUM**

To: Board of Directors Date: October 3, 2023  
From: Eric Miller, Assistant GM / Chief Engineer *EM*  
Subject: FY2022/23 End of Year Progress Report – Engineering Department  
R:\CHIEF ENGMILLER\FY 22-23\Reporting\End of Year CIP Review\FY22-23 end of year BOD.docx

**RECOMMENDED ACTION:** Information Only

**FINANCIAL IMPACT:** None

The primary purpose of this memorandum is to provide an end of year status report to the Board on the District's performance in completing budgeted FY2022/23 Capital Improvement Projects (CIPs) in Novato and West Marin (including Oceana Marin) service territories, as well as an overview of Special Studies managed by the Engineering Department. The memorandum also provides a summary of the total Engineering labor hours expended for both CIP and Developer projects.

A summary of the District's CIP expenditures for all service areas, including "placeholder" budget line items such as "Other Main/Pipeline Replacements" that are used as the need arises through the course of the fiscal year is provided in Table 1:

**Table 1 – CIP Cost Summary**

Service Area	CIP Project Costs (\$)		% Complete
	Budget	Actual	
Novato Water	16,527,000	9,240,502	56
Novato Recycled	350,000	0	0
West Marin (including OM)	2,022,000	567,076	28
<b>Total</b>	<b>18,899,000</b>	<b>9,807,578</b>	<b>52</b>

A significant number of developer projects are in various project stages throughout FY2022/23 which continues to have an overall impact on the District's ability to execute the planned CIP projects. On average, the Department continues to receive approximately five planning-level or building permit referrals each week. During the fiscal year, the Engineering Department managed 18 different developer and 24 over-the-counter projects.

In addition to CIP and Developer projects, the Engineering Department work plan includes various Special Studies, summarized in Table 2. These studies require significant engineering staff time, use of outside consultants, as well as time and effort from key Operations and Construction staff.

**Table 2 – Special Studies Cost Summary**

Study Name	Study Costs (\$)		% Complete
	Budget	Actual	
Novato Water Master Plan Study	144,000	15,822	11
Connection Fee Studies (All Service Areas) *	29,000	41,380	100
Lynwood/San Marin Zone 2 Modification Study	30,000	0	0
Coast Guard Housing – PRTP Study	25,000	15,064	50
STP Chlorine Code Compliance	0	23,301	75
STP Corrosion Assessment	0	77,205	100
OM Sewer System Management Plan	0	10,138	25
GIS Conversion/Mapping Project	31,000	16,015	50

*\* connection fee studies were managed by the Auditor/Controller with assistance from Engineering staff*

In addition to the formal studies identified above, Engineering staff, as well as key staff from other Departments, are involved in significant projects led by external agencies such as; both the City of Novato and Marin County-Wide Plan update to the Housing and Safety Elements, development of the former Coast Guard Housing site in Point Reyes Station, a wastewater treatment feasibility study for Dillon Beach (both County of Marin), and participation in the Marin County Multi-Jurisdictional Local Hazard Mitigation Plan. These efforts are not currently established District projects under the CIP program but have the potential to result in future projects.

Performance Status for CIP

A total of twenty-seven (27) CIPs were originally budgeted in FY2022/23 for the Novato, West Marin Water and Oceana Marin (OM) service areas, but, by the end of the fiscal year, nine

(9) new projects were added, and three (3) were carried over from the prior year, for a total of thirty-nine (39) projects. Of these 39 projects, 13 were completed during the fiscal year and 8 were put on hold due to staff resource limitations. The remaining 18 projects are in various stages of design or construction and under the lead responsibility of the Engineering Department for completion (10 in Novato and 8 in West Marin). The Engineering Department operates under continuous collaboration between the various other departments to ensure all needs are met in delivery of the Capital Improvement Program. A summary and status of all 39 projects (27 Novato Potable, 1 Recycled Water and 11 West Marin), including annual “placeholder” contingency funds that may not currently be utilized, is provided in Tables 3 and 4.

**Table 3 – Novato Service Area**

DESCRIPTION	Project Costs (\$)		% Complete
	Budget	Actual	
<b>Novato Potable Water System</b>			
Replace 12-inch pipe – S. Novato Blvd (785 lf)	50,000	0	0
Novato Blvd Widening – Diablo to Grant	1,000,000	11,474	5
<i>Replace Copper – Jamison Court</i>	0	22,700	100
<b>George St. Main Replacement</b>	0	79,197	100
San Mateo Tank 24” Transmission Main	20,000	6,198	30
Loop Zone Mall Area Near Nave Ct & S. Novato	275,000	1,802	0
<i>Loop Dead End Mains – NMWD Yard</i>	0	107,791	100
<b>Replace 8-inch pipe – Railroad Ave</b>	0	82,117	100
MSN B2 Utility Agreement Costs	12,000	2,089	75
Detector Check Assembly Repair/Replace	100,000	43,535	100
Office and Laboratory Renovation	12,650,000	7,812,279	60
<b>Repave Corp Yard</b>	0	173,808	100
Repair Sludge Line from STP to Center Rd (4,400 lf)	25,000	21,719	50
STP Various Improvement Projects	150,000	91,137	100
Water Supply Enhancements – Stafford Dam	50,000	26,958	50
<b>Replace Pump Motor – High Service PS No. 3</b>	0	65,570	100
Tank Replacement – Old Ranch Rd	100,000	319,559	100
Fire Flow Back Feed Valve – Nunes Tank	200,000	0	0
Recoating Tanks – Various Sites	170,000	0	0

Seismic Upgrade/Coating – Lynwood Tank No. 1	500,000	0	0
Seismic Upgrade/Coating – Lynwood Tank No. 2	500,000	0	0
<b>Garner Tank Recoating</b>	0	10,989	10
Pump Station Replacement – Crest PS	10,000	33,493	30
Pump Station Replacement – Lynwood PS	40,000	211,874	10
<i>Mobile Pump Station for Tank Cleaning</i>	0	3,976	15
Hydropneumatic Tank Repairs	50,000	79,585	35
<b>Cherry Hill PS Retaining Wall Repair</b>	0	4,784	10
<b>Ammo Hill Tank Fence</b>	0	23,760	100
Novato Potable Water Contingency Funds **	625,000	0	30
<b>Novato Recycled Water System</b>			
RW Replace CI on Atherton Ave (1,320 lf)	350,000	0	0
<b>Total Novato Service Area</b>	<b>16,877,000</b>	<b>9,240,502</b>	<b>55</b>

*\*\* placeholder contingency funds, total budget shown*

**Table 4 – West Marin Service Area(s)**

DESCRIPTION	Project Costs (\$)		% Complete
	Budget	Actual	
<b>West Marin Water System</b>			
New Gallagher Well No. 2	380,000	333,958	85
Gallagher Well No. 1 Assessment & Rehabilitation	15,000	35,350	60
Gallagher Ranch Streambank Stabilization	5,000	3,975	90
Pipeline Replacement – Lagunitas Bridge	52,000	9,794	15
<b>Replace Galv. Pipe – Balboa/Drakes/Baywood</b>	0	61,085	50
Raise Valves for Hwy 1 Paving	15,000	805	5
Replace PB – Fox Dr.	15,000	15,110	100
West Marin Contingency Funds **	165,000	0	0
Subtotal (West Marin System)	647,000	460,077	71
<b>Oceana Marin Sewer System</b>			
Infiltration Repair (Manhole Relining)	40,000	25,462	100
Treatment & Storage Pond Rehabilitation	1,210,000	17,046	30
Sewer Force Main Improvements – Phase FM 1A	125,000	37,153	25
<b>Replacement Pump #1 – OM Lift Station</b>	0	37,834	100

Subtotal (Oceana Marin Sewer System)	1,375,000	117,493	25
<b>Total West Marin Service Area</b>	<b>2,022,000</b>	<b>567,076</b>	<b>28</b>

*\*\* placeholder contingency funds, total budget shown*

Notes for Tables 3 & 4

Carry forward projects from previous fiscal year *(indicated in italics)*  
 New projects added throughout the fiscal year **(indicated in bold)**

Of the total twenty-eight (28) Novato Service Area CIP's, ten (10) are currently active, including the Lynwood PS replacement project which is in entering the environmental evaluation phase to determine the preferred alternative from the three that were presented to the Board at the August 15, 2023 Board meeting. Two other important projects are heading into the construction phase in the first half of next fiscal year, construction of the new Crest Pump Station along Bahia Drive and repair of up to a critical portion of the sludge waste line at the Stafford Treatment Plant. Significant progress continues on the design phases of the hydropneumatics system in the Bahia neighborhood, and on the Novato Blvd. Widening project which is being managed by City of Novato staff. The project includes 4,500 feet of 12-inch main replacement, 1,000 feet of side-street branch ties and 35 new services. Construction of the District's Office and Laboratory Renovation project began in July 2022 and is currently scheduled for completion/occupancy in March 2024.

Of the eighteen (18) non-active projects, ten (10) were completed during the 2022/23 fiscal year, and the other eight (8) projects are currently on hold due to workload limitations and reprioritization. When new projects are added to the workplan throughout the fiscal year there are impacts to other budgeted projects, but District staff strives to work efficiently and reassess priorities throughout the year.

Of the total eleven (11) West Marin CIP's, eight (8) are currently active, including improvements to a segment of the sanitary sewer force main in Oceana Marin which is about 50% through the design phase. Design of the Oceana Marin Pond Rehabilitation project was completed last fiscal year and District staff received notice from Cal OES and FEMA in May that additional grant funding for the construction phase was approved. Construction is scheduled to begin during the 2023/24 fiscal year and scheduled for completion by September 2024. The other three (3) West Marin CIP's were completed earlier this fiscal year, including the unforeseen replacement of pump number 1 at the Oceana Marin Lift Station on Tahiti Way.

Engineering Department Labor Hours

The Engineering Department provides various services across the District in support of the overall operation, maintenance and expansion of water facilities. The three major work classifications for the department are:

- 1) General Engineering,
- 2) Developer Projects, and
- 3) District Capital Improvement Program (CIP) Projects

There are approximately 18,090 engineering labor hours available annually. A comparison of budgeted labor hours vs. actual labor hours worked by the department is provided below in Table 5.

**Table 5 – Engineering Labor Distribution**

<b>Work Classification</b>	<b>Annual Budget (hrs)</b>	<b>% of Budget</b>	<b>Annual Actual (hrs)</b>	<b>% of Actual</b>
General Engineering	11,477	63	12,380	69
Developer Projects	2,290	13	1,533	8
District CIP Projects	4,323	24	4,177	23
<b>Total</b>	<b>18,090</b>	<b>100</b>	<b>18,090</b>	<b>100</b>

The Engineering Department continues to rely on outside consultants for assistance on many of the CIP projects throughout all service areas. Of the total CIP expenditure of \$9,807,578, approximately \$1,733,425 is consultant expense for the fiscal year (18% of total, compared to 47% for the previous FY). The majority of consultant time was used on one major project: The Office Building and Laboratory Renovation project.

ATTACHMENTS: None

10

**DISBURSEMENTS - DATED SEPTEMBER 21, 2023**

Date Prepared 9/18/23

The following demands made against the District are listed for approval and authorization for payment in accordance with Section 31302 of the California Water Code, being a part of the California Water District Law:


Seq	Payable To	For	Amount
1	Ahtna	Reissue Payment - Original Check Lost in Mail (Refund Security Deposit on Hydrant Meter Less Final Bill)	\$650.16
2	Alameda Electrical Distributors	Electrical Supplies	200.25
3	Alpha Analytical Labs	Lab Testing (West Marin - \$1,345 & Novato - \$3,435)	4,780.00
4	Angell, Amelia	Novato "Washer Rebate" Program	100.00
5	Arendell, Tony	Retiree Exp Reimb (Sept Health Ins)	1,234.14
6	Associated Right of Way Services	Prog Pymt#11: Valuation Services for Estimate of 998 Rush Creek Place (Balance Remaining on as needed Contract \$28,234)	2,145.00
7	Athens Administrators	August Indemnity Review Fee	105.00
8	Automation Direct	Enclosure for Control Panel	244.13
9	Bank of Marin	Bank of Marin Loan Principal & Interest (Pymt#143 of 240) (Aqueduct Energy Efficiency Project)	46,066.67
10	Bay Alarm Company	Quarterly Fire Alarm Monitoring Fee (10/1/23-12/31/23)	338.19
11	California Water Service	September Water Service	30.49
12	CDW-Government, Inc.	Renewal of Anti-Virus Subscription (Budget \$1,399)	1,099.15
13	Chandrasekera, Carmela	Retiree Exp Reimb (Sept Health Ins)	1,234.14
14	Cilia, Joseph	Retiree Exp Reimb (Sept Health Ins)	457.46
15	Comcast	September Internet (Buck Institute)	356.55



Seq	Payable To	For	Amount
37	Marin Independent Journal	Classified Ad on 8/18/23: Bid Proposal for Oceana Marin Wastewater & Storage Pond Repair Project	88.71
38	ODP Business Solutions, LLC	Miscellaneous Office Supplies	62.91
39	Overhead Door	50% Deposit for Replacement Warehouse Roll Up Door	5,383.50
40	Pace Supply	Clamp & Setter	893.17
41	Pearlman, Avram	Exp Reimb: June Through August Mileage	224.10
42	Pacific Gas & Electric Co	Engineering Advance to Upgrade Electrical Service @ Crest Tank Site, to Allow for Relocation & Upgrade of Bahia Hydropneumatic Pump Station	3,500.00
43	Pini Hardware	Miscellaneous Maintenance Tools & Supplies	683.39
44	Point Reyes Prop Mgmt Assn	September HOA Fees (25 Giacomini Rd)	75.05
45	Preferred Alliance, Inc.	Pre-Employment Test (2)	84.00
46	Quadient, Inc.	October Postal Meter Rental	143.06
47	Red Wing Business Advantage	Safety Boots (2)	400.00
48	RH & Sons Water Services	Backflow Testing for RP & DC Assemblies (98)	6,370.00
49	Rupp, Steve	Retiree Exp Reimb (Sept Health Ins)	457.46
50	Soiland Co., Inc.	Rock (111 yds)	3,821.25
51	Sonoma County Water Agency	August Contract Water (\$504,540) & Conservation Support Program (4/1/23-6/30/23)	505,393.08
52	Steele, Benjamin	Exp Reimb: Safety Boots	200.00
53	Tamagno Green Products	Sludge Removal from STP (135 loads)	6,075.00
54	Township Building Services	August Janitorial Services (District Yard - \$1,155 & STP)	1,522.86
55	Univar	Sodium Hydroxide (12 tons) (STP)	9,698.83
56	USA BlueBook	Replacement Lamp (Lab)	449.15
57	Velloza, Susan	Refund Overpayment on Closed Account	76.90

Seq	Payable To	For	Amount
58	Waste Management	Waste Disposal	394.81
59	Weigel, Anna	Novato "Washer Rebate" Program	100.00
60	Young, Katie	Novato "Washer Rebate" Program	100.00
<b>TOTAL DISBURSEMENTS</b>			<b><u>100.00</u></b> <b><u>\$636,861.74</u></b>

The foregoing payroll and accounts payable vouchers totaling \$636,861.74 are hereby approved and authorized for payment.

 09/19/2023  
 Auditor-Controller Date

 9/19/2023  
 General Manager Date

## DISBURSEMENTS - DATED SEPTEMBER 28, 2023

Date Prepared 9/25/23


The following demands made against the District are listed for approval and authorization for payment in accordance with Section 31302 of the California Water Code, being a part of the California Water District Law:

Seq	Payable To	For	Amount
P/R*	Employees	Net Payroll PPE 9/15/23	\$179,583.91
90628*	Internal Revenue Service	Federal & FICA Taxes PPE 9/15/23	76,568.61
90629*	State of California	State Taxes & SDI PPE 9/15/23	16,946.55
90630*	CalPERS	Pension Contribution PPE 9/15/23	47,597.35
90631*	CalPERS	October Insurance Premium (Employer \$49,503, Retirees \$12,242 & Employees \$7,851)	69,596.07
1	100 Wood Hollow Drive Owner	October Rent for 100 Wood Hollow	29,735.21
2	Alameda Electrical Distributors	Electrical Wire (500')	386.72
3	Alpha Analytical Labs	Lab Testing (Novato & W.M.)	620.00
4	American Family Life Ins	September 2023-Employee Paid Benefit	3,775.84
5	AT&T	Leased Lines	62.86
6	Backflow Distributors	Back Check Repair Kits (10)	471.40
7	Core Utilities, Inc	Consulting Services: August IT Support (\$6,000), SCADA/PLC Support for Telemarketing Equipment & Gallagher Well #2 (\$1,475) & Labor to Design IT System for New Office & Lab	9,250.00
8	Core & Main	Brass Bushings (3)	19.01
9	Diesel Direct West	Diesel (972 gal) (\$6,110) & Gasoline (559 gal) (\$2,911)	9,021.31
10	Ferguson Waterworks	20' Antenna for Compound Ultrasonic Meter Replacement (Buck Institute) (\$3,725) & AMI Meters (19) (\$12,791)	16,515.88
11	Genterra Consultants	Prog Pymt#26: Dam Safety Consulting Services for STP (Balance Remaining on Contract \$63,400)	4,443.50

Seq	Payable To	For	Amount
12	GHD Inc.	Prog Pymt#8: Consulting Services Agreement for Crest Pump Station (\$27,474) (Balance Remaining on Contract \$225,520) & Prog Pymt#5: GIS Conversion to ESRI & Mapping Support (\$7,608) (Balance Remaining on Contract \$4,097)	35,082.91
13	Grainger	Flow Switch for Telemetry Equipment, Chlorine Reagents (2,000) (STP) & Miscellaneous Maintenance Tools & Supplies	1,463.77
14	Griswold Industries	Parts for Emergency Repair of Flow Control Valve at Point Reyes Treatment Plant	1,021.64
15	HERC Rentals Inc.	Backhoe Rental (9/8-9/18/23)	2,000.45
16	Instrumart	Level Sensors for Ammo Hill (2)	978.68
17	Kaiser Foundation Health Plan	DMV/DOT Physicals (4 Employees) & Pre-Employment Tests (2 Employees)	702.00
18	Kemira Water Solutions	Chlorine (20 Dry Tons) (STP)	33,177.64
19	Lincoln Life Employer Serv	Deferred Compensation PPE 9/15/23	9,299.81
20	Real Manage	Return Payment-Not Our Account	1,264.97
21	Medical Center of Marin	Pre-Employment Test	72.00
22	Mitch's Certified Classes	Backflow Preventer Assembly Tester Workshop (3/7-3/8/24) (Davenport)	800.00
23	Murphy, Loretta	Novato "Cash for Grass" Rebate Program	800.00
24	Mutual of Omaha	Oct 2023-Group Life Insurance Premium	1,267.04
25	Nationwide Retirement Solution	Deferred Compensation PPE 9/15/23	3,397.50
26	Nave Motors	Smog Check ('14 F150)	60.00
27		Vision Reimbursement	184.00
28	Nommsen, Jessica	Exp Reimb: Application Fee for CWEA Lab Analyst II	207.00
29	Pace Supply	Meter Box Lids (2), Meter Stops (23) (\$1,345), Double Check Detector Assembly Setter (\$1,478) & Hydrant Flange	3,918.27

Seq	Payable To	For	Amount
30	Pape Machinery Inc.	Parts & Labor to Reseal Arm Cylinder ('04 Backhoe)	2,567.03
31	Redwood Health Services, Inc.	Sept 2023 Dental Claims & Fees Expense	8,052.18
32	Scott Technology Group	September Monthly Maintenance on Engineering, Admin Copiers & Contract Overage Charge	365.89
33		Vision Reimbursement	184.00
34	Solenis, LLC	Praestal K279 (4,580 lbs) (STP)	11,155.16
35	SPG Solar Facility XII, LLC	August Energy Delivered Under Solar Services Agreement	15,179.96
36	Thatcher Company of California	Chlorine (4,000 lbs) (STP)	5,181.50
37	Unicorn Group	Postage for Fall Novato Waterline	4,992.71
38	USA BlueBook	Turbidimeter Maintenance Kit (STP)	1,832.14
39	US Bank	August Safekeeping Treasury Securities	116.25
40	Vortex Doors	Provide Estimate for Repair of Warehouse Roll-Up Door	744.00
41	Vulcan Materials Company	Pea & Sand (47 yds)	3,023.40
42	ZORO	Miscellaneous Maintenance Tools & Supplies & Conduit Tape (3,000')	1,092.72
		<b>TOTAL DISBURSEMENTS</b>	<b><u>\$614,778.84</u></b>

The foregoing payroll and accounts payable vouchers totaling \$614,778.84 are hereby approved and authorized for payment.


09/25/2023  
 \_\_\_\_\_  
 Auditor-Controller Date


9/25/2023  
 \_\_\_\_\_  
 General Manager Date



**MEMORANDUM**

To: Board of Directors

October 3, 2023

From: Julie Blue, Auditor-Controller *JB*  
Nancy Williamson, Accounting Supervisor *NW*

Subj: Auditor-Controller's Monthly Report of Investments for July 2023  
t:\acl\word\invest\24\investment report 0723.doc

**RECOMMENDED ACTION:** Information

**FINANCIAL IMPACT:** None

At month end the District's Investment Portfolio had an amortized cost value (i.e., cash balance) of \$35,599,303 and a market value of \$35,391,799. During July the cash balance decreased by \$2,114,797. The market value of securities held decreased \$1,937,348 during the month. The total unrestricted cash balance at month end was \$732,628 and 95.9% of the Target Reserves are funded.

At July 31, 2023, 52% of the District's Portfolio was invested in California's Local Agency Investment Fund (LAIF), 20% in Time Certificates of Deposit, 23% in a Treasury Note, 3% in the Marin County Treasury, and 2% retained locally for operating purposes. The weighted average maturity of the portfolio was 90 days, compared to 98 days at the end of June. The LAIF interest rate for the month was 3.31%, compared to 3.17% the previous month. The weighted average Portfolio rate was 4.77%, compared to 4.29% for the prior month.

Investment Transactions for the month of July are listed below:

7/14/2023	CA State Treasurer	LAIF	\$169,857.36	4-6/23 Quarterly LAIF interest credit
7/18/2023	LAIF	US Bank	\$1,500,000.00	Trsf from LAIF account
7/27/2023	LAIF	US Bank	\$325,000.00	Trsf from LAIF account

**NORTH MARIN WATER DISTRICT**  
**AUDITOR-CONTROLLER'S MONTHLY REPORT OF INVESTMENTS**  
**July 31, 2023**

Type	Description	S&P Rating	Purchase Date	Maturity Date	Cost Basis <sup>1</sup>	7/31/2023 Market Value	Yield <sup>2</sup>	% of Portfolio
<b>LAIF</b>	State of CA Treasury	AA-	Various	Open	\$18,599,314	\$18,317,134	3.31% <sup>3</sup>	<b>52%</b>
<b>Time Certificate of Deposit</b>								
TCD	Enerbank	n/a	9/25/20	9/25/24	249,000	249,000	0.45%	1%
TCD	Sallie Mae Bank	n/a	8/18/21	8/18/23	249,000	249,000	0.35%	1%
TCD	UBS Bank	n/a	9/9/21	9/11/23	249,000	249,000	0.35%	1%
TCD	BMW Bank	n/a	8/20/21	2/20/24	249,000	249,000	0.45%	1%
TCD	Goldman Sachs Bank	n/a	1/19/22	1/19/24	249,000	249,000	0.75%	1%
TCD	Ally Bank	n/a	2/24/22	2/23/24	248,000	248,000	1.30%	1%
TCD	Greenstate Credit Union	n/a	3/15/22	3/15/24	249,000	249,000	1.60%	1%
TCD	Capital One Bank	n/a	4/7/22	4/8/24	247,000	247,000	2.20%	1%
TCD	Capital One Bank, N.A.	n/a	4/20/22	4/22/24	247,000	247,000	2.35%	1%
TCD	American Express Natl Bank	n/a	5/4/22	5/6/24	246,000	246,000	2.60%	1%
TCD	BMO Harris Bank	n/a	6/10/22	6/10/24	246,000	246,000	2.80%	1%
TCD	GE Credit Union	n/a	6/29/22	6/28/24	249,000	249,000	3.25%	1%
TCD	Beal Bank	n/a	7/13/22	7/10/24	246,000	246,000	3.05%	1%
TCD	Synchrony Bank	n/a	8/5/22	8/5/24	245,000	245,000	3.30%	1%
TCD	Discover Bank	n/a	9/13/22	9/13/24	245,000	245,000	3.40%	1%
TCD	Sharonview Credit Union	n/a	10/17/22	10/17/24	249,000	249,000	4.35%	1%
TCD	Popular Bank	n/a	11/9/22	11/7/24	247,000	247,000	4.75%	1%
TCD	Dannemora Fed Credit Union	n/a	11/10/22	11/10/23	249,000	249,000	4.70%	1%
TCD	Greenwood Credit Union	n/a	11/21/22	11/21/23	248,000	248,000	4.85%	1%
TCD	Alabama Credit Union	n/a	11/22/22	11/22/24	248,000	248,000	4.90%	1%
TCD	Community West Credit Union	n/a	12/19/22	12/19/24	249,000	249,000	4.78%	1%
TCD	Connexus Credit Union	n/a	12/20/22	12/20/23	248,000	248,000	5.00%	1%
TCD	Austin Telco Fed Credit Union	n/a	1/27/23	1/27/25	248,000	248,000	4.90%	1%
TCD	First Tech Fed Credit Union	n/a	2/17/23	2/18/25	249,000	249,000	4.85%	1%
TCD	Keybank National Assoc	n/a	3/15/23	3/17/25	243,000	243,000	5.00%	1%
TCD	Morgan Stanley Bnk NA	n/a	4/6/23	4/7/25	244,000	244,000	4.90%	1%
TCD	Morgan Stanley Private Bnk	n/a	4/6/23	4/7/25	244,000	244,000	4.90%	1%
TCD	Raiz Federal Credit Union	n/a	5/11/23	5/12/25	248,000	248,000	4.85%	1%
TCD	Hughes Federal Credit Union	n/a	6/29/23	6/30/25	248,000	248,000	5.25%	1%
					<b>\$7,175,000</b>	<b>\$7,175,000</b>	<b>3.13%</b>	<b>20%</b>
<b>US Treasury Notes</b>								
Treas	Treasury Note	n/a	5/23/23	10/19/23	\$7,997,714	\$8,072,389	5.23%	23%
<b>Other</b>								
	Agency Marin Co Treasury	AAA	Various	Open	\$1,051,860	\$1,051,860	0.67%	3%
	Other Various	n/a	Various	Open	775,416	775,416	0.09%	2%
<b>TOTAL IN PORTFOLIO</b>					<b>\$35,599,303</b>	<b>\$35,391,799</b>	<b>4.77%</b>	<b>100%</b>

Weighted Average Maturity = **90 Days**

LAIF: State of California Local Agency Investment Fund.

TCD: Time Certificate of Deposit.

Treas: US Treasury Notes with maturity of 5 years or less.

Agency: STP State Revolving Fund Loan Reserve.

Other: Comprised of 5 accounts used for operating purposes. US Bank Operating Account, US Bank STP SRF Loan

Account, US Bank FSA Payments Account, Bank of Marin AEEP Checking Account & NMWD Petty Cash Fund.

1 Original cost less repayment of principal and amortization of premium or discount

2 Yield defined to be annualized interest earnings to maturity as a percentage of invested funds

3 Earnings are calculated daily - this represents the average yield for the month ending July 31, 2023

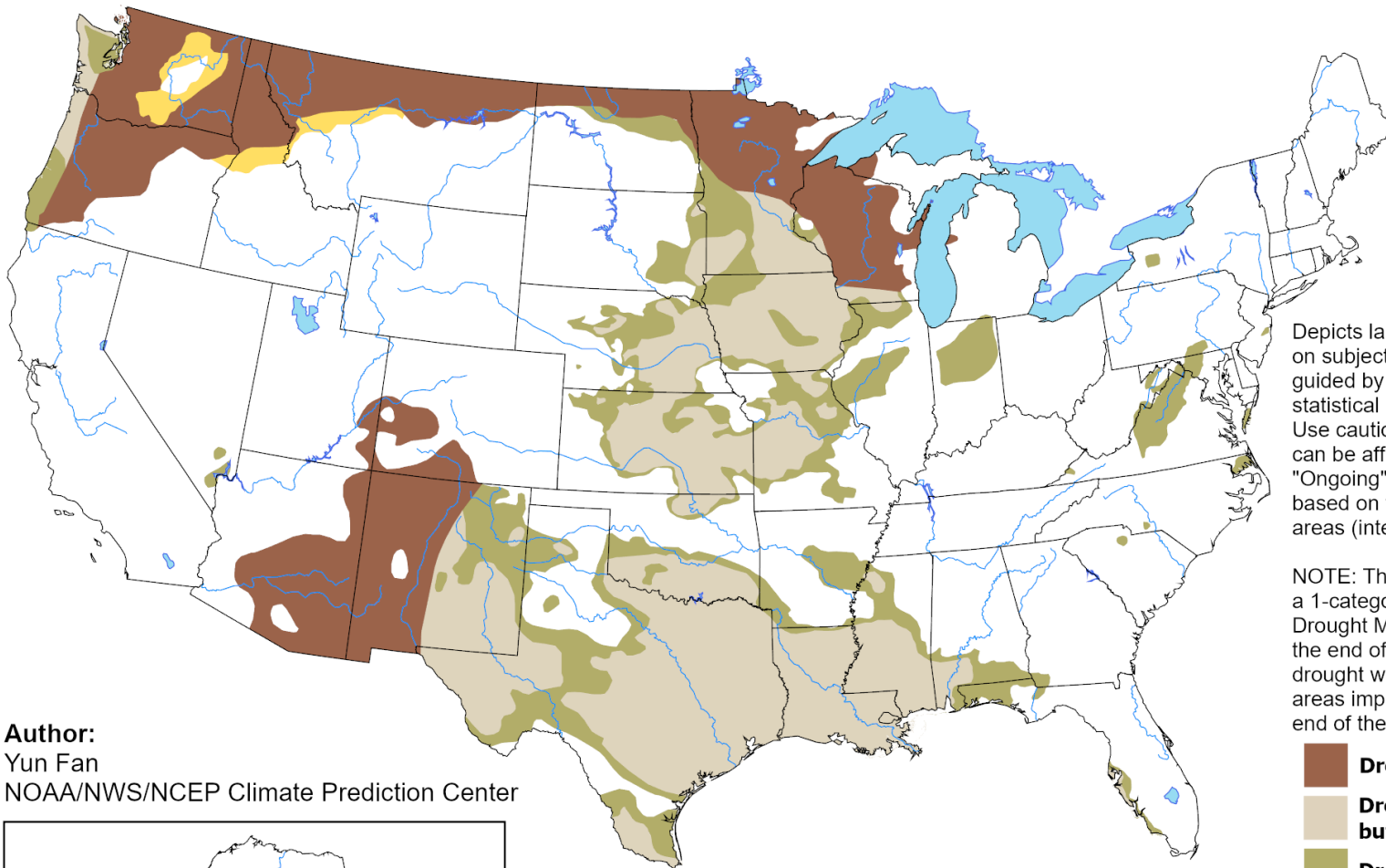
<b>Interest Bearing Loans</b>	Loan Date	Maturity Date	Original Loan Amount	Principal Outstanding	Interest Rate
Marin Country Club Loan	1/1/18	11/1/47	\$1,265,295	\$1,054,415	1.00%
Marin Municipal Water - AEEP	7/1/14	7/1/32	\$3,600,000	\$1,620,203	2.71%
Employee Housing Loan (1)	3/30/15	3/30/30	250,000	250,000	Contingent
<b>TOTAL INTEREST BEARING LOANS</b>			<b>\$5,115,295</b>	<b>\$2,924,618</b>	

**The District has the ability to meet the next six months of cash flow requirements.**

# U.S. Seasonal Drought Outlook

## Drought Tendency During the Valid Period

Valid for September 21 - December 31, 2023  
Released September 21, 2023

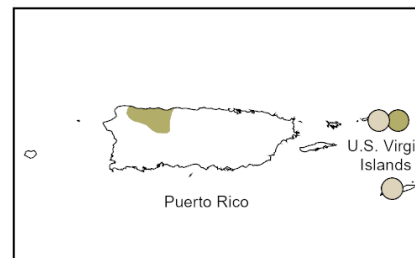
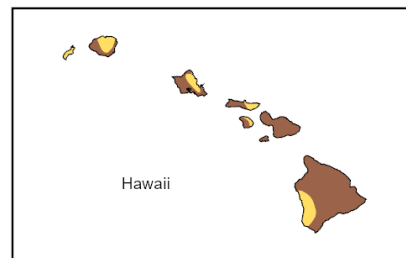
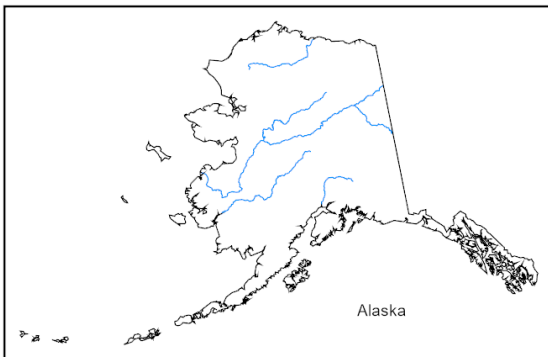


Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

- Drought persists
- Drought remains, but improves
- Drought removal likely
- Drought development likely
- No drought

Author:  
Yun Fan  
NOAA/NWS/NCEP Climate Prediction Center



<https://go.usa.gov/3eZ73>

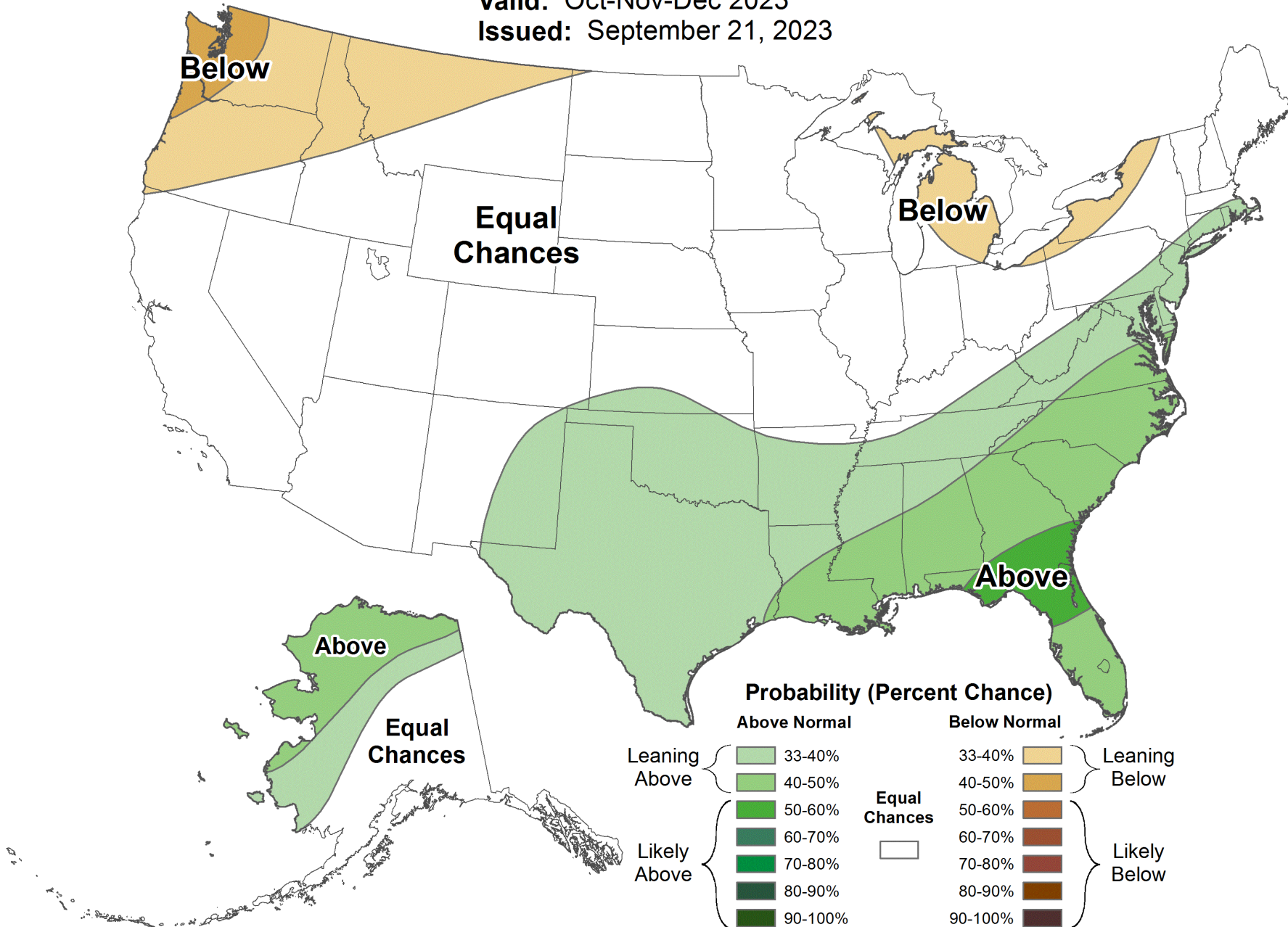




# Seasonal Precipitation Outlook



Valid: Oct-Nov-Dec 2023  
Issued: September 21, 2023



# WET WINTER? WARY OF WEATHER BAY AREA FORECASTS SHOW EL NIÑO CONDITIONS, INCREASING GLOBAL TEMPERATURES AND THE POSSIBILITY OF A WETTER-THAN-AVERAGE SEASON



Visitors at Battery Spencer take in a view of the Golden Gate Bridge in 2019 during the region's last El Niño year.  
PHOTOS BY ALAN DEP — MARIN INDEPENDENT JOURNAL





Southern Marin firefighter Dave Lloyd looks at a mudslide in which a woman was rescued from her wrecked home in Sausalito during 2019.

BY WILL HOUSTON

[WHOUSTON@MARINIJ.COM](mailto:WHOUSTON@MARINIJ.COM)

New forecasts show a higher chance for strong El Niño conditions this winter, increasing global temperatures and potentially giving the Bay Area a wetter-than-average rainy season.

The updated advisory by the U.S. Climate Prediction Network showed there is a 95% chance that El Niño conditions will extend through this winter into March. The center, operated under the National Oceanic and Atmospheric Administration, states that there is now a 71% of a “strong” El Niño, up from the 56% chance it predicted earlier this year.

“However, a strong El Niño does not necessarily equate to strong impacts locally, with the odds of related climate anomalies often lower than the chances of El Niño itself,” the center stated in its Sept. 14 update.

El Niño events are naturally occurring and cause parts of the Pacific Ocean near the equator to warm. This warming can affect weather patterns throughout the Earth by altering storm formation and movement.

In California, El Niño events generally cause wetter conditions in the south and drier conditions to the north, but that is not always what plays out. There have been 26 El Niño events in California since 1951, of which 11 were classified as “weak,” seven as “moderate,” five as “strong” and three as “very strong,” according to Jan Null, a meteorologist at Golden Gate Weather Services in Half Moon Bay.

While El Niño events can lead to wetter or drier conditions, Null states they are not consistent. In the Bay Area, eight of the 26 El Niño years resulted in below-normal rainfall, seven in normal rainfall of between 80% to 120% of average and 11 in about 120% of normal rainfall, according to Null.

“Think of it as the Pacific Ocean and the overlying atmosphere being on a performance-enhancing drug,” Null wrote on his website in an El Niño update earlier this year. “And just like we don’t know why an athlete will have a great performance one day and be mediocre the next, we don’t know whether a particular weather event during an El Niño or La Niña year would have occurred anyway.”

The last El Niño event was in 2018-2019. Marin County was hit by significant rainfall that caused flooding and damage, including a large mudslide in Sausalito that destroyed two buildings and injured a resident. The Marin Municipal Water District measured nearly 75 inches at Lake Lagunitas that year, above its average of 52 inches. That event was classified to be a “weak” El Niño.

The last “strong” El Niño occurred in 2015-2016, but predictions of a significant wet winter to end the state’s drought at the time never materialized. The Marin Municipal Water District only received 40 inches of rain that year.

Lucy Croy, the district water quality manager, said the agency’s historic rainfall records show El Niño events do result in wetter winters on average.

“El Niño seems to push us more toward having more rain. There were some big years,” Croy said, noting the 1997-1998 event when 90 inches of rain fell.

Following the significant rainfall this past winter, the outlook for Marin County's water supply has become significantly more optimistic compared to the drought years of 2020 and 2021, when reservoirs reached alarmingly low levels. The seven local reservoirs operated by the Marin Municipal Water District were 87% full on Sunday, well above the 70% average for this time of year. Stafford Lake, the reservoir for the North Marin Water District in Novato, was 59% full as of Monday.

Both Marin agencies also receive supply from Sonoma Water. The agency reported its largest reservoir, Lake Sonoma, was at 92% of capacity, while the smaller Lake Mendocino was at about 72%.

Tony Williams, general manager of the North Marin Water District, which that serves Novato and parts of western Marin, said any above-normal rainfall is welcome, but he said there are also concerns about flooding.

"We would prefer a series of spaced-out rainfall events," Williams wrote in an email. "We currently don't plan to operate Stafford any differently than normal, meaning we plan to leave the lake at or near an elevation of 180 feet. Given the current status of Sonoma Water's two reservoirs, we are heading into this winter in a really good situation regionally regardless of how potent El Niño is."

# Newsom mulls water ban on some decorative lawns

Bill on his desk would affect medians, businesses



Grassy areas line walkways at the Del Prado Shopping Center in Novato. If signed by Gov. Gavin Newsom, a new bill would prohibit businesses from watering decorative lawns with potable water, but recycled water would be allowed. PHOTOS BY ALAN DEP — MARIN INDEPENDENT JOURNAL





A sprinkler irrigates a lawn at a park in Novato.

**BY WILL HOUSTON**

[WHOUSTON@MARINIJ.COM](mailto:WHOUSTON@MARINIJ.COM)

A state bill on the verge of becoming law would ban the use of drinking water to irrigate decorative grass, a mandate endorsed by Marin leaders who are already largely prepared for it.

Assembly Bill 1572, which has made its way to Gov. Gavin Newsom's desk, would involve the kind of grassy areas in street medians, business parks and city sidewalks. Decorative grass could still be irrigated with recycled water.

The restrictions proposed under were first implemented by the state as temporary provisions during the recent three-year drought. The rules are set to expire in June. The bill would make these rules a permanent way of life in California.

Violations would carry fines of \$500. The regulations do not apply to "functional" turf at places such as parks, playgrounds, cemeteries and athletic fields as well as residential turf at homes and apartment buildings.

The rules would be phased in starting from Jan. 1, 2027, to Jan. 1, 2031, depending on the type of property.

Marin County water suppliers have already implemented their own regulations on functional turf, and some have been in effect for over a decade.

Monty Schmitt, board president of the Marin Municipal Water District, supports the legislation. He said it is a signal that California and its residents must be prepared for a different future where climate change is expected to cause both more intense rainy seasons and prolonged droughts.

"In the last decade, we've been through two extreme droughts that have really shaken our understanding of what water supply reliability looks like in this modern time and the things we need to do to be prepared," Schmitt said. "I think taking that new perspective is wise because I think it's going to serve us into the future."

In 2022, the Marin Municipal Water District, which serves the southern and central parts of the county, banned the installation of new decorative grass, even if it would be watered with recycled water. The prohibition applies to any project installing an aggregate turf area of more than 500 square feet and landscape rehabilitation projects on 1,000 square feet or more of turf.

The North Marin Water District, which serves the greater Novato area and parts of western Marin, has banned the installation of new ornamental turf since 2006. The agency still allows decorative turf if it is watered with recycled water. The agency is exploring potential ways to have property owners replace decorative lawns with low-water landscaping.

"We still probably need to help incentivize the replacement of it," said Ryan Grisso, the district's water conservation coordinator. "We feel like we have the options coming up. I don't know the timeline but we've known this is coming."

Critics, however, say new lawn limitations don't reflect the size of California, which has different water sources and weather conditions from Eureka to Palm Springs.

"This was something that was meant for an emergency when we were in the midst of a drought," said Assemblymember James Gallagher, a Republican in a district north of Sacramento. "That's not always the case. To make it a permanent part of our law I don't think is the right approach."

Gallagher said California should leave most water decisions, particularly in nondrought years, up to local officials. He also said state leaders like Newsom have not done enough to build new reservoirs and increase water storage.

Marin's state representatives, Assemblyman Damon Connolly and Sen. Mike McGuire, both Democrats, voted in support of the legislation.

"Water conservation is a key factor in California's climate strategy, and I am proud to have supported a bill that reflects this necessity," Connolly wrote in an email. "AB 1572 keeps these protections in place by regulating decorative irrigation, and is a progressive effort to combat the effects of the recent drought in the North Bay."

Several major business groups, including the California Chamber of Commerce, at first opposed the bill but dropped their opposition after lawmakers included amendments such as removing apartment complexes from the restrictions and adding a phased implementation.

"Most of the large properties are already doing this stuff," said Matthew Hargrove, president and chief executive officer of the California Business Properties Association. "Well-managed properties try to be energy efficient and water efficient. Just like with energy, water is a big expense. It's a cost issue for us."

The state and local communities have also driven the transition to drought-tolerant landscaping by adopting water conservation policies for new construction projects.

Rick Wells, president of the Marin Builders Association, which represents the local construction industry, said both residential and commercial projects are now using more water-conscious planning and landscaping techniques.

"Newer 'smart' irrigation systems, equipment and practices are more efficient than ever," Wells wrote in an email. "Additionally, the integration of water reuse and recapture systems are becoming more and more common as part of larger landscaping projects."

*The Bay Area News Group contributed to this report.*