



NORTH MARIN WATER DISTRICT
AGENDA - REGULAR MEETING
 November 5, 2024 – 4:00 p.m.
 Location: 100 Wood Hollow Dr., Suite 300
 Novato, California

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Item	Subject
	CALL TO ORDER
1.	APPROVE MINUTES FROM REGULAR MEETING , October 15, 2024
2.	GENERAL MANAGER'S REPORT
3.	OPEN TIME: (Please observe a three-minute time limit) 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.	STAFF/DIRECTORS REPORTS
	CONSENT CALENDAR 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.	Consent - Approve: Crest Pump Station Project – Construction Management Services Contract Amendment
	ACTION CALENDAR
6.	Approve: Revised Inter-Agency Agreement for Recycled Water between Novato Sanitary District and North Marin Water District
7.	Approve: Cost Sharing for 2025 Urban Water Management Plan Update
8.	Approve: NMWD Administration and Laboratory Upgrade Project – Construction Management Services Contract Amendment
9.	Approve: Employer Assisted Housing Program Loan Request – Pablo Ramudo
	INFORMATION ITEMS
10.	FY 2023/24 Fourth Quarter Progress Report - Operations/Maintenance
11.	MISCELLANEOUS Disbursements – Dated October 17, 2024 Disbursements – Dated October 24, 2024 Disbursements – Dated October 31, 2024 West Marin Water Factsheet Final Text of "Making Conservation a California Way of Life" Regulation

Item	Subject
	NOAA Three Month Outlook Precipitation Probability NOAA Seasonal Outlook Drought Probability
	<u>News Articles:</u> Marin IJ – Revamp of span nearing key vote – POINT REYES STATION Marin IJ – Tribe celebrates land acquisition on Marin coast – GRATON RANCHERIA

12. **ADJOURNMENT**

1

DRAFT
NORTH MARIN WATER DISTRICT
MINUTES OF REGULAR MEETING
OF THE BOARD OF DIRECTORS
OCTOBER 15, 2024

CALL TO ORDER

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

District employees Chris Kehoe, Construction Superintendent, and Robert Clark, Operations and Maintenance Superintendent, were also in attendance.

MINUTES

On motion of Director Joly, seconded by Director Fraites, the Board approved the minutes from the October 1, 2024 meeting by the following vote:

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

NOES: None

ABSENT: None

ABSTAIN: None

GENERAL MANAGER'S REPORT

Tony Williams said that on October 8, he, Eric Miller, Julie Blue, Robert Clark, and Pablo Ramudo met with the Executive Director of ACWA, Dave Eggerton and ACWA Regional Affairs representative Jennifer Rotz. They spoke about regulations that burden the industry. The proposed Proposition 4 on the November ballot was discussed, and that ACWA is neutral on it. Mr. Williams said that later that same day, there was a LAFCO meeting regarding boundary changes held in Inverness at the fire department. Supervisor Rodoni, Director Ken Eichstaedt, Director Baker, an IPUD Director and staff from LAFCo, IPUD and NMWD were in attendance. Mr. Williams noted that the presentation is in the Miscellaneous section of the agenda packet. The meeting was about moving the District boundary south so that it no longer includes the IPUD boundary. Another item was to de-annex (remove) the NMWD Marshall boundary that we do not serve, and never have. Director Joly asked how many water districts are in West Marin. Mr. Williams said there are several, he mentioned Muir Beach Water District, Bolinas PUD, Stinson Beach Water District, IPUD, Calwater, and several mutual water companies including Estero Mutual. Director Joly also asked who serves Marshall and Mr. Williams said they are on private wells. Director Joly asked if when the boundary issues were going to be resolved and Mr. Williams said in early 2025. He said a formal

1 application will be presented to the Board for approval and submitted to LAFCo for their commission
2 to approve it and send it to the state. If all goes well, the boundary changes will be finalized by July
3 1, 2025.

4 Director Joly asked when Stafford Treatment Plant would be back online and Mr. Clark said
5 the filter basin repairs are complete but start-up is dependent on availability of the District lab staff
6 and the timing of the certification of the new lab. It is possible later in November or December.

7 Director Joly also mentioned the Tesla batteries that have been installed at the San Marin
8 Pump Station and asked when the planting will be done to help camouflage the batteries. Mr. Clark
9 said the work is not complete but once they have completed started up, the planting can be done.

10 Director Fraites asked about the road to Indian Valley Golf Course and who is responsible for
11 resurfacing the road. Mr. Williams said that we are in the process of renewing the lease with IVGC
12 and in the lease we have offered to share some of the costs for the road although technically it has
13 been IVGC's responsibility. Director Joly asked how far we use the road and Mr. Williams said up to
14 the treatment plant for the most part but sometimes we have to go further to areas along the
15 shoreline as well as to the solar farm.

16 **OPEN TIME**

17 President Baker asked if anyone in the audience wished to bring up an item not on the
18 agenda. A customer who lives at 174 Van Buren Ct addressed the Board and said that his bill has
19 almost doubled since the last one due to a leak that he was unaware of until recently. He said he
20 has spoken with staff about a bill adjustment but was told that he did not meet the requirements. He
21 was told he could come to a meeting and speak to the Board about it. Julie Blue said we do offer
22 payment plans from 6-months to a year. Director Petterle asked Ms. Blue to look into the customer's
23 situation and see what solutions we can offer and come back to the Board with a recommendation.
24 Director Joly told the customer that he can go online and look at his water use on a daily basis to
25 monitor it and he would be able to see at any time if there is high use that could be due to a leak.
26 Director Petterle asked why this wasn't detected by staff and Ms. Blue said that if the daily use isn't
27 substantial it may not be triggered by the system or is considered irrigation or other uses. The
28 customer thanked the Board and left the meeting.

29 Director Fraites noted that District staff notified him when he had a leak and was able to get
30 a bill adjustment. He said we have a good system and he would not have known about the leak if
31 they had not notified him.

32 **STAFF/DIRECTORS REPORTS**

33 President Baker asked if there were any staff or director's reports and there was no
34 response.

1 **CONSENT CALENDAR**

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

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

5 NOES: None

6 ABSENT: None

7 ABSTAIN: None

8 **17 CYPRESS ROAD WATER FACILITIES – APN 119-081-53**

9 The project at 17 Cypress Road in Pt. Reyes Station consists of the construction of a new 6-
10 inch water main from the roadway through a neighboring private driveway to the property at 17
11 Cypress that does not have direct access to Cypress Rd. The lot is currently vacant with one EDU,
12 but improvements by the owner will be construction of a new single-family dwelling and an ADU.

13 Prior to the vote, Director Eichstaedt asked what type of coordination happens between the
14 District and the County, who inspects the line? Mr. Miller said that since the District is doing the
15 waterline installation and we inspect our own work. We do coordinate with the County if there is a
16 grant of easement involved and there is with this project. Director Eichstaedt also asked if this is a
17 standard type of project and Mr. Miller said it is. Robert Clark added that our Cross-Connection
18 Division is also involved.

19 **APPROVE: REIMBURSEMENT AGREEMENT BETWEEN NMWD AND THE CITY OF NOVATO**
20 **FOR PAVEMENT RESTORATION ON RUSH CREEK PLACE**

21 Eric Miller gave a brief recap of this item that was brought to the Board for review previously.
22 He said that as part of the Administration & Laboratory Upgrade project, a waterline for recycled
23 water was trenched in through Rush Creek Place as well as roadway rehabilitation. He said that a
24 portion of the roadway rehabilitation is required by the City as part of the encroachment permit that
25 was issued for the recycled water extension from Redwood Blvd project. He said that the scope of
26 the roadway rehabilitation was more than what was originally required and since the expanded
27 scope would be mutually beneficial to the District and the City, the City agreed to reimbursement the
28 District for a portion of the paving costs. Director Petterle said he found it interesting that the
29 extended scope of the project is mutually beneficial to the District and the City and noted that the
30 real outcome will be a good looking entrance to the building.

31 On the motion of Director Petterle, and seconded by Director Joly, the Board approved the
32 Reimbursement Agreement between NMWD and The City of Novato for pavement restoration on
33 Rusk Creek Place by the following vote:

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

35 NOES: None

1 ABSENT: None

2 ABSTAIN: None

3 **APPROVE: ADOPTION OF REVISED AND NEW DISTRICT BOARD POLICIES**

4 Tony Williams said that this item is for two actions, one approval of three updated policies
5 and one for adoption two new policies. He said that drafts of all these policies were brought to the
6 October 1, 2024 meeting for review. He noted that Policies No. 40, Computer Use, and No. 46,
7 Board Computer Use, will be discussed in more detail during closed session at the end of the
8 meeting. Director Joly asked if a vendor for the electric vehicle charging station has been chosen
9 yet and Robert Clark said no, that is still being looked into. Director Joly also mentioned looking into
10 stations that have anti-vandalism features. Mr. Clark noted that we will have security cameras on
11 the premises.

12 On the motion of Director Petterle, and seconded by Director Eichstaedt, the Board
13 approved the adoption of revised and new District Board policies by the following vote:

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

15 NOES: None

16 ABSENT: None

17 ABSTAIN: None

18 **INFORMATION ITEMS**

19 **NBWA MEETING – OCTOBER 4, 2024**

20 Director Fraites said they met on Mare Island at the Coal Sheds Brew Pub. He went over the
21 history of Mare Island and said it was very interesting. He said West Yost did a presentation on the
22 infrastructure assessment on the island. He said a sea wall will have to be built when the island is
23 retrofitted for sea level rise protection. He said the City and Solano County are investing a lot in the
24 island.

25 **TAC MEETING – SEPTEMBER 9, 2024 DRAFT MINUTES**

26 Mr. Williams said many of the topics had been covered at prior meetings. He noted that
27 Item #4 is about water supply conditions and that each year the information has to be submitted to
28 the State Water Resources Control Board. Director Joly said that it looks as though Lake
29 Mendocino is being drained down by Potter Valley but Mr. Williams said that the area where the
30 draw occurs is further down from Potter Valley. Director Joly also asked who owns Lake Sonoma
31 and Mr. Williams said that it's the Army Corps of Engineers and they control its flood control mission
32 and that Sonoma Water is a local partner and they control the water supply function.

1 **MISCELLANEOUS**

2 The Board received the following miscellaneous items: Disbursements - Dated October 3
3 and 10, Auditor-Controller's Monthly Report of Investments for August 2024, Monthly Progress
4 Report, and Inverness PUD & NMWD Proposed Boundary Changes Public Meeting October 8, 2024
5 - Presentation.

6 The Board also received the NMWD Web and Social Media Report – September 2024.

7 **CLOSED SESSION**

8 President Baker adjourned the Board into closed session at 5:08 p.m. after an eight-minute
9 recess for a conference with the District's IT Consultant, CORE Utilities in accordance with
10 Government Code Section 54957(a). District representatives present were Tony Williams, Julie Blue
11 and Robert Clark and the subject of cybersecurity was discussed. At 5:50 p.m. Director Petterle left
12 the meeting. At 5:53 p.m. Julie Blue, Robert Clark and IT Consultant left the meeting.

13 At 5:54 p.m. District attorney Sharon Nagle joined the meeting via telephone and the Board
14 discussed the existing litigation in accordance with Government Code Section 54956.9, regarding
15 the AFFF Multi-District Litigation No. 2873 for PFAS contamination in Public Water Systems'
16 Drinking Water on behalf of the BASF Corporation ("BASF"). In addition, Tyco Fire Products &
17 Chemguard, Inc. (collectively "Tyco Defendants") was also discussed.

18 **OPEN SESSION**

19 Upon returning to regular session at 6:07 p.m., President Baker stated that no reportable
20 action had been taken during Closed Session.

21 **ADJOURNMENT**

22 President Baker adjourned the meeting at 6:08 p.m.

23 Submitted by

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26
27 Eileen Mulliner
28 District Secretary
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MEMORANDUM

To: Board of Directors *EM* November 5, 2024

From: Eric Miller, Assistant General Manager/Chief Engineer
Avram Pearlman, Associate Engineer

Subject: Crest Pump Station – Construction Management Services Contract Amendment

R:\Folders by Job No\6000 jobs\6141 Crest PS\Board Memos\2024 1105 GHD CM Contract Amend\6141 Contract Amend 1 - GHD BOD Memo.doc

RECOMMENDED ACTION: Board authorize General Manager to amend the Agreement with GHD, Inc.

FINANCIAL IMPACT: \$50,000 (available in FY 24/25 budget)

The purpose of this memo is to request the first amendment to the Consulting Services Agreement with GHD, Inc. (GHD) for construction-phase services for the District's Crest Pump Station project (J-1.6141.00). The Board approved the initial agreement with GHD at the September 19, 2023 Board meeting in the amount of \$190,000 for full project management during the construction phase including, contract management, coordinating meetings, documentation, inspection of work performed, processing payments, responding to contractor inquiries, and ensuring compliance with project requirements.

Construction of the pump station was awarded to the low-bid contractor, Maggiora & Ghilotti, at the November 21, 2023 Board meeting, and staff issued the Notice to Proceed on December 20, 2023. During review of contractor submittals and shop drawings it was noted that a change to the specified pump sizes was needed. GHD assisted the District with review and ultimately selection of revised pump sizing, which was outside of their original scope of work. Due to the long lead-time of pumps and motors, staff authorized GHD to conduct this pump analysis prior to processing a contract amendment.

Additionally, GHD has been asked to review electrical and mechanical equipment submittals associated with the pump station structure, a scope of work that was not anticipated at the time the original contract was executed. Initially, staff intended to complete review of the electrical and mechanical submittals internally, but ultimately decided that review of all submittals by GHD ensures consistency and coordination across every project element.

Staff is now proposing a first amendment to the GHD agreement for enhanced support through the construction phase which is anticipated to continue through June 2025. GHD has provided a proposal for a not to exceed cost of \$50,000; which includes the pump size analysis and additional construction submittal reviews.

Financial Impact

The approved line item in the FY24/25 CIP budget for this project (Item No. 2b3) is \$1,400,000, which was staff's combined estimate for construction costs and soft costs at the time the CIP budget was approved. The current construction contract is \$1,450,000, which includes the base contract and change orders 1-3. Soft costs are currently estimated at \$280,000, which includes GHD's original contract amount of \$190,000, Amendment No. 1 in the amount of \$50,000 and District staff costs.

The project's current total estimated cost is \$1,730,000, which represents \$330,000 over the budgeted amount. Additional funds to cover the overage are available in line item 2c1 – Hydropneumatic Upgrades, Phase 1 (Bahia), which is a capital improvement project that will not be fully expended during the current fiscal year.

RECOMMENDATION

Board authorize the General Manager to amend the agreement with GHD, Inc. for the Crest Pump Station Project in the amount of \$50,000.

ATTACHMENTS:

1. GHD Contract Amendment No. 1
2. GHD Crest PS – CM Services; Scope & Fee Increase Proposal, dated August 27, 2024

NORTH MARIN WATER DISTRICT

CONTRACT AMENDMENT

PROJECT: Crest Pump Station

AMENDMENT NO.: 1

DATE: November 5, 2024

JOB NO.: 1.6141.00

TO CONSULTANT:

ORIGINAL CONTRACT DATE: September 2023

Attention: Jane Rozga
 GHD, Inc.
 2235 Mercury Way, Suite 100
 Santa Rosa, CA 95407

CONTRACT FOR:
 Construction Management services for the
 Crest Pump Station Project

The Contract is changed as follows:

Task 1 Design related services, additional RFIs and change orders
 Task 2 Pump and motor selection analysis
 See attached GHD Contract Amendment Request dated August 27, 2024

For construction management services during the construction phase

\$50,000

Not Valid until signed by the District and Consultant

The original Contract Sum was	\$190,000
Net change by previously authorized Amendments	\$0
The Contract Sum prior to this Amendment was	\$190,000
The Contract Sum will be increased by this Amendment in the maximum amount of	\$50,000
The new Contract Sum including this Amendment will be	\$240,000
The Contract Time will not be increased by this amendment	0 months
The date of Substantial Completion as of the date of this Amendment therefore is	June 30, 2025

Consultant Signature

District Signature

Print Name

Print Name

Date

Date

cc: Consultant
 Job File



2235 Mercury Way, Suite 100
Santa Rosa, CA 95407
www.ghd.com

Our ref: 12630146

27 August 2024

Avram Pearlman
North Marin Water District
555 Bahia Drive
Novato, CA

Crest Pump Station Project – CM Services; Scope & Fee Increase Request

Dear Avram:

As you are aware, GHD has been expending the budget for CM services on tasks that were not intended to be part of our scope. Additionally, the period of construction will extend beyond that expected when CM services were budgeted.

Additional scope items include:

1) Design-related services

Submittals: When we estimated costs to provide CM services on the project, we estimated a modest level of effort for submittal processing – an average of about 30 minutes each for 20 submittals. At the time the proposal was sent out, we were not aware that GHD and the District would partner to complete the design and take on submittal review for compliance with design intent. After the initial CM proposal was executed, an amendment was prepared to design the structural and electrical for the project but did not include associated submittal reviews.

We have received 62 submittals so far and expect perhaps 20 more by the time the contract is complete. Many are minor, and Procore allows efficient processing, but even just the electronic transactions add up.

In addition, we are reviewing each in detail to confirm that the materials and equipment align with specified requirements and meet design intent. For the combination of technical review and routine processing, we spent about 60 hrs, almost \$16,000, on the first 40 submittals. We would typically estimate an average of 3 hours per submittal (including resubmittals) but have averaged about half that due to the relative simplicity of the project components.

We estimate that we are more than halfway through the submittal effort. The Contractor's submittal log includes 200 items, but many are combined and we expect that most of the remaining items will not require lengthy review.

RFI's & Change Orders: Similar to submittals, we did not include budget for design services during construction related to RFI's and changes. We have approximately \$10,000 budgeted for CM services related to these items, the design services might be similar, could require additional budget.

2) Pump Selection

During the constructability review, we took a look at the pump calculations to confirm the pipe sizing and the NPSH calculation. We did not have the overall system confirmation and related pump curves.

During the bidding process, a supplier questioned the performance of the pump, very close to the bidding deadline. The contractor subsequently submitted on the pump, questioned the pump hp rating, and inquired about the acceptability of running the pump in the service factor of the motor.

The District then requested an evaluation of the pump. We looked at the pump submittal, confirmed that the pump would exceed the rated hp at the upper flow requirements, consulted with the pump supplier, and looked at alternatives.

During the evaluation process, we learned that District Operations staff recommends a higher flow rate to reduce the time required to fill the reservoirs and improve the system's ability to meet emergency demands. We reviewed a variety of options, with pump sizes ranging from 20 hp to 40 hp. The recommend solution to best match pump curves to system characteristics and operational requirements was found to be 40 hp pumps with VFD's, with a larger pump.

This effort required over 120 hours dedicated by civil and mechanical engineers with experience in pump design at a cost of approximately \$32,000.

3) Contract Period

In our fee proposal, we anticipated a 3 month construction period, 60 WD of inspection. We expect construction to extend longer but expect that an average of 5 hours per day rather than 8 will provide adequate coverage. This reduction in effort balances off some of the additional design services provided.

While we still have the majority of our CM budget available, we have expended almost half of the authorized budget before the Contractor has mobilized to the site. The out-of-scope effort to date represents approximately \$41,000 in additional cost. In partnership with District staff, we still have opportunity to reallocate responsibilities to stay within our existing budget if needed. If the District prefers that GHD maintain the level of service budgeted for the duration of the project, we expect an amendment of \$50,000 will be required cover anticipated design related services. Costs associated with extended duration can be estimated once the Contractor's schedule is updated.

Task Order 8	\$ 9,000
Task Order 9	\$ 37,500
CM Services Contract	\$190,000
Design Services Amendment 1	<u>\$ 50,000</u>
	\$286,500

Excel spreadsheets detailing expenditures are attached for backup. We can summarize into a report if desired.

We propose that a minor overage on Task Order 9 will be transferred to the CM Services contract rather than amending both the Task Order and the CM Services contract. For invoicing purposes, we have reallocated budget to cover expenditures to date and anticipate that level of effort on other services will be reduced if an increase in budget is not approved.

Please let me know if you have any questions or need additional information.

Thank you for your assistance with this!



Jane Rozga
Project Director
Jane.Rozga@ghd.com

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MEMORANDUM

To: Board of Directors Date: November 5, 2024
 From: Tony Williams, General Manager *[Signature]*
 Subject: Revised Inter-Agency Agreement for Recycled Water between Novato Sanitary District and North Marin Water District
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RECOMMENDED ACTION: That the Board Approve Revision 4 of Inter-Agency Agreement for Recycled Water between Novato Sanitary District and North Marin Water District

FINANCIAL IMPACT: None at this time

Attached is a draft fourth revision to the existing agreement for interagency cooperation to develop and distribute recycled water with Novato Sanitary District (NSD) for the North and Central recycled water distribution facilities. The relationship between the two agencies involving recycled water extends back to 2000. The original inter-agency agreement was first approved by the Board in early 2011 with subsequent revisions later in 2011 to meet state revolving fund requirements. A similar agreement is in place between North Marin Water District (NMWD) and the Las Gallinas Sanitary District (LGVSD) for the South recycled water distribution facilities. At the June 21, 2022 Board meeting, similar changes to the agreement with LGVSD was approved by the Board.

The draft revised agreement (Attachment 1), which was provided to NSD back in April 2022, contains revisions to the current agreement (Revision 3, 2011). These revisions were originally developed as early as 2016, and more recently in 2021, with the primary intent of clarifying how the Recycled Water Capital Replacement and Expansion Fund is funded and how the funds are divided between the two agencies. Staff from NSD and NMWD conducted extensive reviews in 2023 and 2024 to ensure operational considerations and limitations were accurately presented in the agreement as well. The following are a list of changes that are being proposed for Article D Payment Provisions:

1. Updating the actual process for developing the recycled water rate based on the actual operations and maintenance cost of NSD and clarification of NSD billings.
2. Creating two distinct Funds rather than one in order to establish how much money is available for projects at NSD's Recycled Water Treatment Facility (RWTF) and how much money is available for projects in NMWD's North-Central Service Area recycled water distribution facilities.

3. Allowing the use of the respective Funds for debt service payments for eligible capital projects, including past projects already completed. This new provision sets a minimum reserve of \$500,000 below which debt service payments are not allowed.
4. Establishing clear principles for the methodology of funding each Fund including:
 - a. Further define what constitutes net revenue (i.e., the “leftover” revenue that is available to fund the Funds).
 - b. How to distribute the net revenue into the respective Funds. We are proposing to split the net revenue based on each agency’s relative annual depreciation expense (specific to the applicable recycled water infrastructure to serve NMWD’s North-Central Service Area) since this is the most equitable measure of the capital re-investment needs of the respective systems.
5. Building on past practices/requirements, NMWD will provide an annual report that summarizes the calculation of net revenue and resultant contributions to each Fund, as well as any distributions from the Funds, in order to maintain a consistent record of the available funds in each respective Fund. A copy of the recent report is provided as Attachment 2.

In addition to the changes proposed above, other minor revisions are proposed that update definitions; moves certain provisions from Article F to Article A; updates applicable external agencies and associated permits. Changes are proposed in Sections 1 and 2 of Article B that reflect current operational limitations and capacity limits and necessary responses by each agency. Proposed changes and deletions are shown in Article C since initial construction of treatment facilities and the distribution system have already been completed including associated grant funding but acknowledging the need to coordinate on any new future construction. The exhibits to the Agreement have been reviewed and updated to reflect the proposed language in the Agreement. Exhibit D is a 54-page technical document and is not included with the draft Agreement in Attachment 1, however, it is available online at the District website: https://nmwd.com/wp-content/uploads/2024/10/NMWD_RW_Expansion_Final.pdf

The revised agreement is presented to your Board for consideration and staff recommends approval. If the Board approves this revised Agreement, the NSD Board of Directors will consider approval at their next available meeting.

RECOMMENDATION

The Board authorize Revision 4 (2024) to the Inter Agency Agreement for Recycled Water between NSD and NMWD.

ATTACHMENTS

1. Draft Fourth Revision to Inter Agency Agreement for Recycled Water Between NSD and NMWD.
2. FY 2022-23 Recycled Water Capital Replacement & Expansion Fund Report

DRAFT
~~THIRD-FOURTH~~ REVISED
INTER AGENCY AGREEMENT
FOR RECYCLED WATER
BETWEEN
NOVATO SANITARY DISTRICT
AND
NORTH MARIN WATER DISTRICT

~~MAY 2011~~Month 2024

Last Printed

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10/17/20249/25/2024

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<u>Exhibit A</u>	<u>Point of Connection Detail - Deer Island RWTF</u>
<u>Exhibit B</u>	<u>Point of Delivery Detail - Davidson Street RWTF</u>
<u>Exhibit C</u>	<u>Producer's Schedule of Sampling and Analysis</u>
<u>Exhibit D</u>	<u>NSD Recycled Water Facility Expansion Basis of Design Technical Memorandum 2015</u>

**INTER AGENCY AGREEMENT
FOR RECYCLED WATER
BETWEEN
NOVATO SANITARY DISTRICT
AND
NORTH MARIN WATER DISTRICT**

This Agreement is made and entered into on this _____ day of _____, ~~2011~~2024, (the "Effective Date") between the Novato Sanitary District (referred to as "Producer") and the North Marin Water District herein (hereinafter referred to as "Distributor"). Producer and Distributor may be referred to herein individually as a "Party" or collectively as the "Parties."

RECITALS

- A. Producer and Distributor are actively involved in local and regional efforts to develop recycled water supplies and promote recycled water use.
- B. Producer and Distributor recognize that sustainable water resource management requires integration of water supply and wastewater discharge limitations.
- C. Producer and Distributor have previously cooperated in development of the Deer Island Recycled Water Treatment Facility (Deer Island RWTF) and distribution system to supply Stone Tree Golf Course and Novato Fire Protection District Station No. 2 with recycled water pursuant to the April 2009 Revised Inter-Agency Agreement for Recycled Water.
- D. Provisions of ~~this agreement~~this Agreement are consistent with conditions established pursuant to the Final Environmental Impact Report/Environmental Impact Statement (FEIR/EIS) for the North San Pablo Bay Restoration and Reuse Project (Project) also known as the North Bay Water Recycling Program as published in the Code of Federal Register (CFR) Volume 75, Number 108 dated June 7, 2010.
- E. Included within said Project are facilities to treat such recycled water at the Producer's wastewater treatment site, hereinafter referred to as the Davidson Street Recycled Water Treatment Facility (the "Davidson Street RWTF").
- F. The Deer Island RWTF and recycled water distribution system is permitted by the State ~~Water Resources of California San Francisco Bay Regional Water Quality~~ Control Board to treat and distribute and use treated effluent as recycled water.
- G. The Davidson Street RWTF and recycled water distribution system ~~is will be~~ permitted by the State ~~Water Resources of California San Francisco Bay Regional Water Quality~~ Control Board to treat and distribute and use treated effluent as recycled water.
- H. Recycled water to be delivered by Producer to Distributor will be disinfected tertiary recycled water, in accordance with the provisions of Title 22 of the California Code of Regulations and applicable requirements of the ~~California Department of Public Health~~State Water Resources Control Board.
- I. Distributor has developed a recycled water master plan for future long-term distribution of recycled water in the Novato area of Marin County, California.

- J. Distributor wishes to acquire from Producer the quantity of secondary effluent and/or recycled water which it can sell to End Users (as defined in Article B.2).
- K. City of Novato, Novato Unified School District playing fields, Valley Memorial Park Cemetery, and former Fireman's Fund Business Park, Homeowners Associations, and Golf Course landscaping will be the initial existing End Users of recycled water and other end users may be served in the vicinity of the recycled water North and Central Service Area pipelines to be constructed from the RWTF's.

AGREEMENT PROVISIONS

For and in consideration of the foregoing recitals and of the mutual promise and covenants herein contained, the Parties hereto agree as follows:

ARTICLE A. INTRODUCTORY PROVISIONS

1 Definitions

When used in this Agreement, the following terms shall have the meanings hereinafter set forth:

- a) "End User" shall mean the ultimate user of recycled water.
- b) "Fiscal Year" shall mean each 12-month period during the term of this Agreement commencing July 1 of one year and terminating June 30 of the next succeeding year, both dates inclusive.
- c) "Operation and Maintenance Costs" shall mean the actual cost of: labor (including general and administrative overhead plus tools and supplies normally applied), equipment and vehicle charges, consumables (such as chemicals and electrical power), and spare parts and/or replaced components necessary to reliably treat and deliver recycled water to the End Users pursuant to ~~this agreement~~ this Agreement. Operation and Maintenance Costs shall not include costs for major capital replacement or process changes.
- ~~d)~~ e) "Point of Connection" shall mean a secondary effluent connection between the Producer's sewerage system and the Distributor's Deer Island RWTF and distribution system (see Exhibit "A" attached hereto and incorporated herein by this reference).
- ~~d)e)~~ e)f) "Point of Delivery" ~~shall mean or as~~ recycled water connection between the Producer's Davidson Street RWTF and Distributor's distribution system (see Exhibit "B" attached hereto and incorporated herein by this reference).
- ~~e)f)~~ f)g) "RWTF" shall mean the Recycled Water Treatment and Pumping Facilities required to produce recycled water from the Producer's sewerage system to the "Point of Connection."
- ~~f)g)~~ g)h) "Distribution" system shall mean the recycled water transmission/distribution pipelines and storage facilities.

2. Term and Renewal

This Agreement shall commence on the Effective Date and be in force for ~~twenty fifteen~~ twenty years, unless both Parties mutually agree to amend or terminate it any point by formal action(s) of their respective governing Boards. Following the original ~~twenty fifteen~~ twenty year Agreement term, the Agreement term shall be

1 automatically renewed and extended for consecutive one (1) year terms, unless
2 terminated in accordance with the provisions of Article E herein.

3
4 **3. Entire Agreement; Termination of Prior Agreement.**

5 This Agreement constitutes the entire agreement between the Parties regarding
6 the subject matter hereof and thereof, and supersedes all prior or
7 contemporaneous negotiations, understandings or agreements of the Parties,
8 whether written or oral, with respect to such subject matter. This Agreement also
9 specifically terminates and replaces tThe Third Revised Inter-Agency Agreement
10 for Recycled Water between Novato Sanitary District and North Marin Water
11 District dated May 10, 2011; said agreement shall terminate as of the Effective
12 Date is terminated as of the effective date of this agreementthis Agreement.

13 **4. Incorporation of Recitals and Exhibits.** The Recitals contained in this
14 Agreement, all of which are hereby deemed true and correct, and the Exhibits
15 attached hereto, are hereby incorporated into this Agreement as if fully set forth
16 herein.

17
18 **ARTICLE B. RECYCLED WATER SERVICE PROVISIONS**

19 **1. Recycled Water Delivery Limitations**

- 20 a) Distributor understands and acknowledges that Producer is charged with the
21 responsibility to operate its sewerage systems in a manner which it reasonably
22 determines to be most beneficial to the users thereof. The rights of Distributor
23 to secondary effluent or recycled water under this Agreement pertain only to
24 that which actually is produced at the RWTF. Nothing contained herein shall
25 be construed to qualify in any manner Producer's right to operate the
26 sewerage system and Davidson Street RWTF at such rates of flow as
27 Producer reasonably determines to be appropriate so as to comply with
28 Producer's NPDES permit.
- 29 b) Nothing herein shall be construed to commit any portion of the recycled water
30 from the RWTF beyond that which will be delivered by Distributor to its
31 customers for reasonable beneficial uses. Producer ~~to~~ shall give to
32 Distributor at least 30 days advance written notice of any non-emergency
33 planned reduction that would reduce the availability of secondary effluent or
34 recycled water to Distributor. Distributor shall have ample opportunity to meet
35 and confer with the Producer on the issue of reduced availability of recycled
36 water.
- 37 c) Any circumstances beyond Producer's control which cause an unplanned
38 reduction in the recycled water available for distribution may, at the discretion
39 of Producer, result in a temporary decrease in recycled water available to
40 Distributor under this Agreement. The reduced availability of recycled water
41 will continue in effect until such time as operations have been restored to
42 normal, provided the Producer must use its reasonable best efforts to restore
43 normal operations as soon as possible. Producer shall notice ~~inform~~
44 Distributor (pursuant to Article B.4.cG) on a weekly frequency regarding such
45 unplanned reduction and status of restoration ~~of to~~ normal operation.

1 d) The Parties acknowledge that in unusual conditions, an emergency diversion
2 of recycled water by Producer may be necessary, and such diversion shall be
3 made to an effluent storage pond or wet weather basin, treatment plant or
4 other authorized location to receive such diversion by the Regional Water
5 Quality Control Board and shall not be deemed a violation of this Agreement.

6 d)e) Distributor understands and acknowledges that power outages may disrupt
7 Producer's ability to supply recycled water. The Davidson Street RWTF is not
8 supported by the Producer's emergency backup power generation system.
9 However, the Producer's recently installed Battery Energy Storage System
10 (BESS) may be able to power the RWTF during outages of short duration (less
11 than 4-hours), depending on the charging status of the BESS at the time of
12 the outage. For longer duration power outages such as Public Safety Power
13 Shutdown (PSPS) events, the Distributor, at its sole cost, may elect to provide
14 temporary power to the Davidson Street RWTF by way of connecting a
15 portable generator at the designated generator receptacle provided by the
16 Producer. The temporary generator shall be operated, and monitored by the
17 Producer.

18 2. Recycled Water Delivery Quantities

19 a) Subject to the provisions herein, Producer agrees to make available to
20 Distributor each Fiscal Year during the term hereof, secondary effluent and/or
21 recycled water produced at the Davidson Street RWTF in the anticipated
22 maximum annual delivery quantity of 186-724 acre feet per year (the "Annual
23 Delivery Quantity") pursuant with a firm (i.e. one unit out of service as backup)
24 daily production capacity of 1.7 MGD and peak hourly pumping capacity of
25 2,360 GPM at a design head of 180 feet, consistent with the 2015
26 NMWD/NSD Recycled Water Facility Expansion Basis of Design technical
27 memorandum prepared by RMC Water and Environment User Connection
28 Schedule (Exhibit F-D).

29 b) Producer shall monitor Distributor's storage tanks levels and make available
30 recycled water that maintains minimum tanks levels of 128 feet and 140 feet
31 for the Distributor's Norman and Plum tanks, respectively.

32 b)c) Annually, Producer and Distributor shall meet and confer in good faith to
33 mutually determine any adjustments to the Annual Delivery Quantity. The
34 purpose of this determination is to provide the Producer and Distributor with
35 information necessary to plan production at the Davidson Street RWTF and
36 Deer Island RWTF respectively including staffing, chemical purchases,
37 maintenance and coordination of operations at the RWTF's.

38 e)d) Producer and Distributor acknowledge that circumstances such as drought
39 or the triggering of Stage 2 or higher of the Distributor's Water Shortage
40 Contingency Plan may require additional Annual Delivery Quantities or a
41 prolonged schedule of operation at the RWTF's and agree to use reasonable
42 best efforts to meet such additional requirements.

43 e) Distributor shall make reasonable efforts to provide back-up source(s) of water
44 for the distribution system at the Davidson Street RWTF and Deer Island
45 RWTF that will provide a reliable flow of water to End Users in the event that
46 circumstances beyond Producer's control cause a reduction or temporary loss
47 of flow of secondary effluent or recycled water from Producer.

d)f) At the beginning of each irrigation season, and when conditions described in Article B.2.d. are not present, Producer will begin startup of the Davidson Street RWTF once demand reaches a minimum 5-day average of 100,000 gpd. Additionally, any time the 5-day average falls below 100,000 gpd, Producer may elect to shut down the Davidson Street RWTF until demand returns to 100,000 gpd average. During these times, the distribution system will be provided water from the back-up source.

3. Metering and Measurement of Flows

- a) Producer will measure all recycled water delivered to Distributor at the point of delivery. This point of delivery (master) metering will be in addition to any retail (customer) metering conducted by the Distributor and/or End Users (collectively, the "Customer Metering"). The Master Metering shall be used for reporting Distributor's recycled water usage to regulatory agencies as well as the total volume produced for a given billing period. Where either Distributor or Producer acts as End Users, they shall also report usage by metering.
- b) ~~The Producer~~ shall test the accuracy of the Master Metering not less frequently than annually and provide the Distributor with a report of such test. ~~The~~ Distributor shall have the right at any time and at its expense to make additional tests of the Master Metering. If the Master Metering is found to be reading 2 percent or more, fast or slow, it shall immediately be recalibrated, repaired or replaced by the Producer (at Distributor's expense) to bring it within 2 percent accuracy.
- c) Title to and risk of loss and responsibility for the handling and control of all recycled water which meets the quality criteria shall pass from the Producer to the Distributor at the point of connection-delivery. ~~The Producer~~ and Distributor agree to exercise due diligence in inspecting their various pipelines and appurtenances and take steps to guard against unreasonable loss of recycled water. Should unreasonable loss of recycled water occur, the ~~parties~~ Parties shall meet in good faith to determine a fair allocation of the cost thereof.

4. Recycled Water Quality and Pressure

- a. All recycled water to be delivered pursuant to the terms of this Agreement will be of such quality that the same may be used for all purposes from time to time allowed for disinfected tertiary recycled water. The recycled water to be delivered to Distributor at the Davidson Street RWTF Point of Connection pursuant to this Agreement shall range in be at a pressure sufficient to meet the system head conditions (typically between 130-170 feet of head) 80 pounds per square inch (psig) and conform to the quality requirements set forth in the then current disinfected tertiary recycled water quality and monitoring regulations specified in Title 22, Division 4, Chapter 3: Wastewater Reclamation Criteria Section 60301.230 (California Code of Regulations), as further regulated by the State of California Regional Water Quality Control Board, the State Water Resources Control Board ~~the California Department of Public Health~~ and all other federal, state and local agencies having jurisdiction over recycled water quality.

- 1 b. The Parties recognize that factors beyond the control of Producer could cause
2 operational difficulties at the Davidson Street RWTF resulting in the temporary
3 production of recycled water which does not meet the current requirements
4 referenced in the previous subparagraph for the intended uses of the End
5 Users. In such cases, Producer shall temporarily suspend deliveries of
6 recycled water to Distributor from Producer's facilities, and Distributor shall
7 produce recycled water from the Deer Island RWTF or provide a back-up
8 source pursuant to Article B, Section 2.4(d) of ~~this agreement~~this Agreement.
9 Producer shall use its best efforts to reestablish the production of recycled
10 water of a suitable quality and pressure as soon as reasonably possible and
11 shall reestablish Distributor's supply of such water accordingly.
- 12 c. Producer shall immediately notify Distributor if recycled water from the
13 Davidson Street RWTF does not meet the currently applicable regulatory
14 requirements and its deliveries of recycled water will be suspended. Such
15 notice shall be given to Distributor, via control system alarm, e-mail
16 (info@nmwd.com) or telephone (415) 897-4133 with a follow-up written
17 confirmation on the same day automatic notice via system alarm is given, or
18 on the next business day if automatic notice is not given during normal
19 business hours. Said notice shall contain the date and time delivery was
20 interrupted and the date and time delivery resumed or is anticipated to
21 resume.
- 22 d. From time to time, it may be necessary for the ~~parties~~Parties to develop, agree
23 upon and implement detailed operating criteria and procedures. Distributor
24 agrees to provide real time recycled water storage level data to facilitate such
25 operating criteria for the RWTF.

26 5. Recycled Water Limitations of Use

27 Distributor agrees to provide the recycled water it receives hereunder only for the
28 use of those End Users who have obtained the appropriate permits to use
29 recycled water. Distributor shall be responsible for establishing the required
30 Administrative Procedures and End User Rules and Regulations, for issuing
31 permits to End Users, and for providing regulatory oversight of End User sites.

32 6. Permits

33 This Agreement is based on the necessary permitting requirements under the
34 current San Francisco Regional Water Quality Control Board Order 96-011
35 General Water Reuse Requirements for Wastewater and Water Agencies, future
36 State General Order WQ 2016-0068-DDW Water Reclamation Requirements for
37 Recycled Water Use, and the Department of Public Health State Water
38 Resources Control Board Title 22 water reuse criteria relating to the use of
39 recycled water and the development and construction of a recycled water
40 production and distribution system. Each of the Parties undertakes and agrees,
41 severally and jointly as appropriate, to file any and all applications and undertake
42 such proceedings as may be necessary to enable each Party to carry out the
43 undertaking contemplated herein, and to pursue each application and
44 proceedings in good faith and due diligence. Distributor will act as lead agency
45 in obtaining, complying with and maintaining the permits that are applicable to the
46 construction and initial permitting of the distribution system and Deer Island
47 RWTF. Producer will act as lead agency in obtaining, complying with, and
48 maintaining the permits that are applicable to the operation of the Davidson Street

1 RWTF. However, both Producer and Distributor agree to cooperate in obtaining
2 and complying with permits necessary to carryout the provisions of ~~this~~
3 ~~agreement~~this Agreement and are responsible, where applicable to their role as
4 Producer or Distributor, to comply with the requirements set forth in these permits.

5
6 **ARTICLE C. ~~EXPANDED~~ NOVATO NORTH AND CENTRAL SERVICE AREA RECYCLED**
7 **WATER FACILITIES**

8 **1. Initial Construction**

9 ~~The Parties previously completed initial construction of recycled water facilities~~
10 ~~including at the Davidson Street RWTF and the distribution system to serve~~
11 ~~existing Novato North and Central Area End Users. The construction of new~~
12 ~~facilities is covered in Article C.3 below. The Parties have worked together to~~
13 ~~develop planning, permitting and engineering design for a Davidson Street RWTF~~
14 ~~and distribution system to serve various Novato North and Central Service Area~~
15 ~~End Users including the City of Novato, Novato Unified School District playing~~
16 ~~fields, Valley Memorial Park Cemetery, and Fireman's Fund Business Park~~
17 ~~landscaping.~~

18 **2. Master Plan**

19 The Parties have prepared and approved a ~~focused master plan~~2006 Recycled
20 Water Implementation Plan (the "~~Master Implementation~~ Plan") for contemplated
21 expanded distribution and/or treatment facilities for the distribution of recycled
22 water in the service area of Distributor (the "Expanded Facilities"). The ~~focused~~
23 ~~Master Implementation~~ Plan was prepared by Nute Engineering and promotes
24 the use of recycled water throughout the service area of Distributor, and is
25 consistent with Distributor's overall water supply planning. The Parties agree that
26 such Implementation Plan shall continue to govern during the term of this
27 Agreement.

28 ~~Arrangements between the parties relating to permitting, design and construction~~
29 ~~of Expanded Facilities beyond that contemplated herein shall be addressed in~~
30 ~~one or more future agreements.~~

31 **3. Construction of New Facilities**

32 a) Each party shall be solely responsible for obtaining all permits, contracts,
33 approvals, easements, land rights, or other permission or consent necessary
34 to proceed with its recycled water facilities, as ~~contemplated~~ described by this
35 Agreement.

36 ~~b) Recycled water delivered to Distributor pursuant to this Agreement shall be~~
37 ~~provided by Producer from the Davidson Street RWTF facility. Initial~~
38 ~~construction Construction of the Davidson Street RWTF shall be~~
39 ~~administered, managed and financed by the Producer with a bank loan and/or~~
40 ~~grant funding. Repayment of any said loan financing shall be pursuant to~~
41 ~~Producer wastewater sewer service charges.~~

42 ~~Initial Construction of Recycled Water distribution facilities shall be~~
43 ~~administered, managed and financed by the Distributor with a California State~~
44 ~~Water Resources Control Board State Revolving Fund Low Interest Loan,~~
45 ~~bank loan and/or grant funding. Repayment of any said loan financing shall~~

1 ~~be pursuant to Distributor Water Connection Fees paid by Distributor~~
2 ~~customers.~~

3 ~~c) Initial Construction Costs (including engineering support, construction~~
4 ~~management and administration) for the Davidson Street RWTF are~~
5 ~~estimated to be \$5,450,000 pursuant to the Phase 3 Engineering and~~
6 ~~Economic/Financial Analysis Report for the Project by Camp Dresser McKee~~
7 ~~(CDM, June 2008) with revised project summary costs (RMC, August 2010~~
8 ~~costs) or 52% of the total Initial Construction Costs, and allocated to the~~
9 ~~Producer.~~

10 ~~Initial Construction Costs for the Recycled Water distribution facilities are~~
11 ~~estimated to be \$5,100,000 pursuant to the revised CDM, November 2009~~
12 ~~costs, or 48% of the total initial construction costs and allocated to the~~
13 ~~Distributor.~~

14 ~~d) Federal Funding Grant Allocation.~~

15 ~~—The Producer has entered into an agreement with Sonoma County Water~~
16 ~~Agency (SCWA) on behalf of Producer and Distributor for up to 25% federal~~
17 ~~grant funding for the Expanded Facilities, also known as the “Novato North and~~
18 ~~Central Service Area Recycled Water” projects as defined by the North San~~
19 ~~Pablo Bay Restoration and Reuse Project — EIR/EIS (ESA 2010). Federal~~
20 ~~grant funds are anticipated from the American Reinvestment and Recovery~~
21 ~~Act (ARRA) and Title XVI Grants awarded by the U.S. Bureau of Reclamation~~
22 ~~(USBR). Until such a time that Distributor is a direct recipient of ARRA or Title~~
23 ~~XVI grant funds from SCWA, Distributor agrees to abide by all the terms and~~
24 ~~conditions of said agreement between Producer and SCWA, attached hereto~~
25 ~~as Exhibit D.~~

26 ~~i. Allocation of ARRA Grant Funds~~

27 ~~—Of the \$7,203,000 in ARRA grant funds eligible for payment to SCWA by~~
28 ~~USBR, \$2,637,500 is to be allocated by SCWA to Producer for the Expanded~~
29 ~~Facilities Novato North Service Area Recycled Water. The aforementioned~~
30 ~~ARRA grant fund allocation is based on the Expanded Facilities Novato North~~
31 ~~Service Area project total cost estimate of \$10,550,000, 48% allocated for~~
32 ~~Distributor’s storage and pipeline components and 52% allocated for~~
33 ~~Producer’s treatment and pumping components. It is agreed that the ARRA~~
34 ~~grant funds will be shared proportionately between the Producer and~~
35 ~~Distributor using the above-stated percentages after accounting for the grant~~
36 ~~administration expenses.~~

37 ~~ii. Allocation of Title XVI Funds~~

38 ~~—Notwithstanding the allocation methodology provided above for the ARRA~~
39 ~~grant allocation, any future Title XVI grant funding allocation will be based upon~~
40 ~~the amounts identified in Exhibit C of the North Bay Water Reuse Authority~~
41 ~~Second Amended Memorandum of Understanding (Exhibit E). It is further~~
42 ~~anticipated that any future grant application and funding disbursement will be~~
43 ~~structured so that SCWA distributes grant funds directly to Distributor as a~~
44 ~~Member Agency of NBWRA and Recipient under a future Agreement for Grant~~
45 ~~Facilitation Services for North San Pablo Bay Restoration and Reuse Project.~~

46 ~~e) State Funding Grant Allocation~~

~~Allocation of any grant funding from the State of California for the expanded facilities shall be shared proportionately between the Producer and Distributor using the percentages stated in Article C, Section 3.d)i.~~

f)b) Expansion of the Davidson Street RWTF and Expanded Distribution Facilities ~~will~~ may be undertaken from time to time ~~as subject to any other future agreements executed between at the discretion of the~~ Producer and Distributor, respectively.

Planned capital improvements or replacements projects to the Davidson Street RWTF shall be coordinated with Distributor sufficiently in advance to ensure adequate funds are available to carry out said projects.

4. Ownership, Operation and Maintenance of Facilities

Distributor shall own, operate and maintain at no cost to Producer, The Deer Island RWTF and all of its distribution facilities from the Point of Connection up to the End User meters.

Producer leases the property on which the Deer Island RWTF is located from the Marin County Flood Control and Water Conservation District. This lease ~~expires~~ was extended on July 1, 2023 for five years with an option to extend it ~~for an additional ten years on a year-to-year basis for up to five additional years~~.

Producer shall own, operate and maintain ~~at no cost to Distributor~~ all of the Davidson Street RWTF up to the designated Point of ~~Connections~~ Delivery. To reimburse Producer for these costs, Distributor shall pay for recycled water pursuant to Article D, Payment Provisions. At Distributor's request or as necessary to comply with permit conditions of state or federal law, Producer may assist with the maintenance and emergency repair of Distributor's distribution facilities. Distributor shall reimburse Producer for reasonable and necessary expenses incurred in carrying out such maintenance or repair. At Producer's request or as necessary to comply with permit conditions of state or federal law, Distributor may assist with the maintenance and emergency repair of Producer's ~~distribution-RWTF~~ facilities. Producer shall reimburse Distributor for reasonable and necessary expenses incurred in carrying out such maintenance or repair.

Producer agrees to provide ~~the~~ Distributor the uninterrupted right of ingress to and egress from the recycled water pipeline route on Producer's property and the right at all times to enter in, over and upon and to use said recycled water pipeline route and every part thereof for all purposes connected with the laying down, constructing, reconstructing, replacing, removing, repairing, maintaining, operating and using said distribution facilities.

Producer agrees not to do anything which may interfere with Distributor's full rights for the purposes noted above including without limitation the following: placing or permitting to be placed on said recycled water pipeline route any building or structure (including without limitation new fences not approved by Distributor) or deck(s), tree(s), large shrub(s), or rock(s) weighing more than 50 pounds;

Subject to the foregoing provisions, Producer may excavate or change the grade of the surface of said recycled water pipeline route way for the Producer's continued operation and maintenance of the existing wastewater facility

1 operations, provided that before making any such change, Producer shall notify
2 Distributor of the proposed change and enable Distributor the opportunity to raise
3 or lower distribution facilities as solely determined by Distributor if Distributor
4 determines in its sole discretion that the change of the grade necessitates that
5 any Distributor facilities be raised or lowered.

6 Producer may cultivate and landscape the surface of said recycled water pipeline
7 route and may construct a roadway thereon provided that such actions do not in
8 any way conflict with or violate any of the preceding limitations.

9 Producer reserves the right to change the location of said recycled water pipeline
10 route on Producer's property to a new location agreeable to Distributor, provided
11 that the full expense of relocating the recycled water pipeline and appurtenant
12 facilities to the new location shall be funded from the Recycled Water Capital
13 Replacement and Expansion Fund.

14 Distributor shall be under no obligation to install or maintain a roadway or
15 pavement or other surfacing upon the recycled water pipeline route except such
16 as may be convenient for its own purposes. (Any surface changes, such as
17 paving, need to be approved by Producer.)

18 5. Monitoring

19 Producer's responsibility for management and monitoring the recycled water
20 delivered hereunder shall be limited only to recycled water production at the
21 Davidson Street RWTF and shall cease upon delivery to Distributor at the Point
22 of Connection/Delivery. Operation, management, maintenance, permitting and
23 monitoring of facilities under the control of the Distributor shall be the sole
24 responsibility of Distributor. Distributor agrees to accept Producer's reporting
25 responsibility for conformance to all monitoring, reporting, and any other
26 requirements assigned to the "recycled water agency" in Title 22 of the California
27 Code of Regulations, all applicable regulations of the State of California Regional
28 Water Quality Control Board, and the California State Water Resources Control
29 Board Department of Health Services and Current Order 96-011 (General Water
30 Reuse Requirements for Municipal Wastewater and Water Agencies) and future
31 State General Order WQ 2016-0068-DDW Water Reclamation Requirements for
32 Recycled Water Use.

33 6. Reporting

34 As a condition of, and to provide assistance sufficient to enable Distributor to carry
35 out this reporting responsibility undertaken by Distributor, Producer shall provide
36 Distributor with the following reporting information:

37 a) Quarterly (or annual, at Distributor's option) recycled water production and
38 monitoring records certified by Producer to meet quality pursuant to Exhibit C
39 within 30 days of the close of each fiscal quarter (or Calendar Year, as the
40 case may be) to the extent permissible by law.

41 b) Adequate notifications of Producer inspections, start-ups, shutdowns and
42 disconnections, or violations, if any.

43 b)c) Annual test results of Master Metering accuracy as required by Article 3.b.

1 **ARTICLE D. PAYMENT PROVISIONS**

2 **1. Recycled Water Pricing Policy**

3 The Parties agree that the rates charged by Producer to Distributor shall be in the
4 amount required to reimburse Producer's actual Davidson Street RWTF
5 Operation and Maintenance Costs. Rates charged by Distributor to End Users
6 shall cover Producer's actual RWTF Operation and Maintenance Costs and
7 Distributor's actual Operation and Maintenance Costs of the distribution facilities;
8 ~~plus an amount for maintenance and replacement.~~ Any payments to the
9 Distributor by the End User in excess of actual costs (marginal payments) shall
10 be deposited in a Recycled Water Capital Replacement and Expansion Fund.

11
12 **2. Recycled Water Rate Review**

13 ~~Distributor reserves the right to request documentation of the Producer's RWTF~~
14 ~~Operation and Maintenance costs to ensure compatibility with the pricing policy~~
15 ~~established in Article D.1. Producer shall charge for the delivery of recycled water~~
16 ~~in accordance with the rate schedule for recycled water service as such rate~~
17 ~~schedule is established by the producer and approved by Producer's governing~~
18 ~~board. Producer shall review and establish said rate schedule based on the~~
19 ~~above described policy of reimbursing Producer's Davidson Street RWTF actual~~
20 ~~Operation and Maintenance Costs every Fiscal Year. Distributor shall be given~~
21 ~~ample opportunity to meet and confer upon the intended application of the pricing~~
22 ~~policy and Producer's RWTF Operation and Maintenance costs, to ensure~~
23 ~~compatibility with the intent of this Agreement as well as Distributor's Recycled~~
24 ~~Water rates. proposed recycled water rates with Producer shall be given ample~~
25 ~~opportunity to meet and confer upon the Distribution, Operation and Maintenance~~
26 ~~cost of distribution facilities prior to final determination of Producer's recycled~~
27 ~~water rates, to ensure compatibility with the intent of this Agreement.~~

28 ~~Notwithstanding any other provision of this Agreement, the cost of planned capital~~
29 ~~improvements or replacement projects to the Davidson Street RWTF shall not be~~
30 ~~included in Producer's recycled water rates but shall instead be reimbursed from~~
31 ~~the Recycled Water Capital Replacement and Expansion Fund 30 days after~~
32 ~~receipt of invoice.~~

1 **3. Billings**

2 Distributor agrees to make monthly, quarterly, (or annual, (at Producer's option)
3 payments for the Producer's total actual operations and maintenance costs for
4 the Davidson Street RWTF amount of recycled water delivered pursuant to Article
5 B.3 in each fiscal quarter (or Fiscal Year, as the case may be) at the rates set
6 according to the procedures herein. The Producer's billing invoice shall include
7 the total volume of recycled water provided at the Point of Delivery for that billing
8 period.

9 **4. Obligation to Pay for Available Water - RESERVED**

10 ~~Distributor is obligated to pay Producer for the Annual Delivery Quantity of~~
11 ~~recycled water for each Fiscal Year, assuming such quantity of recycled water is~~
12 ~~made available to it by Producer. Producer shall bill Distributor at the close of~~
13 ~~each quarter (or each Fiscal Year) for the actual quantity of recycled water taken~~
14 ~~by Distributor pursuant to Article B.3 during that quarter (or Fiscal Year).~~

15 **5. Time and Method of Payment**

16 Payments shall be made by Distributor in response to, and within 30 days of,
17 billing by Producer.

18 **6. Recycled Water Capital Replacement and Expansion Fund**

19 ~~Notwithstanding any other provision of this Agreement, the cost of planned repair,~~
20 ~~replacement or expansion capital improvement or replacement projects to the~~
21 ~~Davidson Street RWTF to meet the delivery obligations to the Distributor stated~~
22 ~~in Article B.2.A shall not be included in Producer's recycled water rates but shall~~
23 ~~instead be reimbursed from the Novato Sanitary Recycled Water Capital~~
24 ~~Replacement and Expansion Fund ("NSRW Fund"). The cost of repair,~~
25 ~~replacement or expansion capital improvement projects to the recycled water~~
26 ~~distribution system that is used to distribute Davidson Street RWTF water~~
27 ~~("Distribution Facilities") shall be reimbursed from the North Marin Recycled~~
28 ~~Water Capital Replacement and Expansion Fund for the North-Central Service~~
29 ~~Area ("NMRW-N/C Fund").~~

30 ~~Both the NSRW Fund and NMRW-N/C Fund Recycled Water Capital~~
31 ~~Replacement and Expansion Fund will be maintained by the Distributor and isare~~
32 ~~intended to assist funding repair and replacement of existing facilities at the end~~
33 ~~of their useful life or expanding/improving the facilities as mutually agreed by both~~
34 ~~Parties. The NSRW Fund and NMRW-N/C Fund may also be used to make debt~~
35 ~~service payments for capital projects that repaired, replaced or expanded the~~
36 ~~RWTF or Distribution facilities, respectively. However, the NSRW Fund and~~
37 ~~NMRW-N/C Funds shall each maintain a minimum reserve level of five hundred~~
38 ~~thousand dollars (\$500,000). This minimum reserve shall only be drawn down for~~
39 ~~the purpose of new capital expenses and not used for eligible debt service.~~

40 ~~-Following the end of each fiscal year, Distributor shall deposit the appropriate~~
41 ~~portion (as defined in the next paragraph) of net revenue (if any) into the~~
42 ~~respective funds. For purposes of this Agreement, net revenue shall be equal to~~
43 ~~total rate revenues collected from retail customers of recycled water delivered to~~
44 ~~Distributor from produced at the Davidson Street RWTF less the Distributor's~~
45 ~~direct and indirect operating expenses associated with purchasing and delivering~~
46 ~~recycled water to those customers. The allocation of the Distributor's direct and~~

indirect operating cost shall be done equitably and transparently as part of annual reporting.

As referenced above, the portion of net revenue to be deposited in the NSRW Fund by the Distributor shall be based on the relative value of that the most recent year available's depreciation expense for the Davidson Street RWTF (accounting solely for the portion of the facility's capacity designated to serve the Distributor as opposed to any other recycled water distribution systems) as compared to that year's depreciation expense of North Marin's the-Distribution Facilities used to deliver Novato San recycled water. The remaining net revenue shall be deposited in the NMRW-N/C as referenced above. Distributor shall provide annual reports of the fund to the Producer, including a summary of the prior year's net revenue calculation and the basis of any applicable deposit to the NSRW Fund and NMRW-N/C Fund. Any expenditure from the-either fund fund-shall be jointly approved in advance by both the Producer and the Distributor-based-on-a prorated allocation of initial facilities value among the Distributor and Producer to meet the demands pursuant to the 2009 Final Environmental Impact Report/Environmental Impact Statement (FEIR/EIS) for the North San Pablo Bay Restoration and Reuse Project (Project) (both Novato Sanitary District and Las Gallinas Valley Sanitary District).

Upon execution of this Agreement, any funds remaining in the Recycled Water Capital Replacement and Expansion Fund will be deposited into the NSRW and NMRW-N/C Funds, proportionally, as described above.

ARTICLE E. TERMINATION

1. General

This Agreement may be terminated upon the occurrence of the events described in the following paragraphs.

~~2. Failure to Initiate Initial Construction~~

~~If the initial construction is not initiated by the second anniversary of the Effective Date of this Agreement (the "Plan Date"), then either Party may elect to terminate this Agreement by serving a written notice (the "Termination Notice") on the other Party within 180 days following the Plan Date. In the event of such termination:~~

~~This Agreement shall be deemed terminated as of the last day of the Fiscal Year during which the Termination Notice was given.~~

~~32. Non-Renewal~~

Following the expiration of the original 2015-year term of this Agreement, either Party may serve upon the other no later than 30 days prior to the next occurring anniversary of the Effective Date a notice of intent to terminate this Agreement. Such termination shall become effective upon said next occurring anniversary of the Effective Date.

~~43. Cause~~

This Agreement may be terminated by either Party at any time for good cause upon 60-days' written notice to the other Party. However, if the good cause is the breach of the other Party, this Agreement may not be terminated under this section unless such breach is not cured by the breaching Party during such 60-

day period. Notwithstanding the foregoing, if a cure of any such breach by any Party hereto cannot practicably be affected within such 60-day period, and the breaching Party, upon receiving such written notice, promptly initiates efforts to cure such failure within such 60-day period, and diligently pursues such cure, this Agreement may not be terminated under this section.

54. Failure to Approve Annual Funding

The Parties acknowledge that each Party undergoes an annual budgeting process and that neither Party is obligated to expend additional funds or to construct additional facilities in any given year unless the applicable Party's governing board has budgeted money for that purpose. Notwithstanding the foregoing, failure to budget such funds may constitute good cause for termination of this Agreement under paragraph 4.3 above.

65. Decision by Distributor to Cease Distributing Recycled Water

This Agreement shall be terminated in the event that Distributor determines that it no longer intends to be a purveyor of recycled water within its service area. Such termination shall be effective at the end of the Fiscal Year following the Fiscal Year in which notice of Distributor's desire to terminate this Agreement pursuant to this Paragraph is furnished to Producer.

In the event of termination pursuant to this Section, the Producer and Distributor agree to meet and consider arrangements to ~~insure~~ensure water service is maintained as necessary to customers historically receiving recycled water.

76. Impasse over Rates

If following mediation as provided for herein, Distributor is unwilling to accept a new ~~annual rate set~~planned cost for recycled water by Producer then this Agreement shall be deemed terminated at the end of the Fiscal Year for which such impasse is reached. If Producer, following mediation as provided for herein, declares an impasse due to Distributor setting rates that do not recover costs necessary to adequately fund recycled water production, then this Agreement shall be terminated at the end of the Fiscal Year for which such impasse is reached.

87. Buyout Upon Termination

If this Agreement is terminated in accordance with the provisions of Paragraphs 2, 3, 4, 5, 6 or 7-6 of this Article, then Producer shall have the option to purchase from Distributor those portions of the Distribution Facilities (along with any appurtenances necessary to distribute recycled water in Producer's service area) that have been constructed or are then under construction from Distributor, including easements and any associated real estate required for their use or maintenance. Producer may exercise this option on the following terms:

- a. Producer shall give written notice of its intent to purchase said facilities within 180 days following the effective date of the termination.
- b. The purchase price shall be equal to the newly reconstructed cost (determined as of the date of the notice in paragraph 8.a) less depreciation (RCNLD) of Distributor's improvements. Upon request, Distributor shall furnish appropriate accounting data and information to Producer to establish the purchase price.

- c. Distributor shall assign to Producer all water delivery contracts with End Users using the Distribution Facilities along with any applicable consulting or construction contracts.

ARTICLE F. GENERAL PROVISIONS

1. Good Faith

This Agreement is the result of good faith negotiations entered into by the Parties willingly, with due diligence, and with full advice of legal counsel, and it is the intent of the Parties that all aspects of performance of this Agreement will be undertaken in the same manner. This Agreement has been reviewed by legal counsel for both Parties, and no presumption or rule that ambiguities shall be construed against the drafting Party shall apply to the interpretation or enforcement of this Agreement. In addition, tThe Parties acknowledge and agree that it is not possible to anticipate every issue, situation or problem that might arise or be encountered during the term of this Agreement. As to any issue, situation, or problem not expressly provided for in this Agreement, each Party agrees to refrain from doing anything (1) to injure the right of each other Party to receive the benefits of this Agreement, or (2) to frustrate the purpose for which this Agreement was executed. Each Party further agrees that in the event any such unanticipated issue, situation or problem arises, they will meet and confer in furtherance of the implied covenant of good faith and fair dealing in order to ~~find~~find a mutually acceptable solution.

2. Amendments

This Agreement may be amended at any time by mutual written agreement of the Parties. The Parties agree that in the event of action by an outside governmental body producing a prospective change in the volume or use of recycled water by Distributor's customers, the Parties will make such amendments to this Agreement as the circumstance may reasonably and equitably require.

3. Notices

All notices or other writings in this Agreement to be given by either Party to the other, shall be deemed to have been given or when made in writing and either (i) delivered personally, or (ii) sent by electronic mail to the e-mail addresses~~facsimile transmission to the Fax numbers~~ set forth below with the original deposited in the U.S. mail, postage pre-paid, first class, addressed as set forth below, or (iii) deposited in the United States mail, registered, or certified, postage prepaid, and addressed as follows:

To Distributor

General Manager
North Marin Water District
P.O. Box 146
Novato, CA 94948-0146
Phone: (415) 897-4133
~~FAX: (415) 892-8043~~878-2049
Email: info@nmwd.com

To Producer

General Manager/~~Chief~~ Engineer

Novato Sanitary District
500 Davidson Street
Novato, CA 94945
Phone: (415) 892-1694
~~FAX: (415) 898-2279~~
Email: info@novatosan.com

The address of either Party may be changed upon written notice given by such Party as above provided. Notices shall also be deemed given when delivered by personal delivery, with a confirmation copy by first class mail.

4. Severability

If any one or more of the covenants or agreements set forth in this Agreement on the part of Producer or Distributor, or either of them, to be performed should be contrary to any provision of law or contrary to the policy of law to such extent as to be unenforceable in any court of competent jurisdiction, then such covenant or covenants, agreement or agreements, shall be null and void and shall be deemed severable from the remaining covenants and agreements and shall not affect the validity of this Agreement.

5. Paragraph Headings

Paragraph headings in this Agreement are for convenience only and are not to be construed as part of this Agreement or any way limiting or amplifying the provisions here.

6. Successors and Assigns

Subject to the provisions of the succeeding Paragraph hereof, this Agreement and all the terms, covenants, agreements, and conditions herein contained shall inure to the benefit of and be binding upon the successors and assigns of the Parties hereto.

7. Assignment

No assignment or transfer by Distributor of this Agreement or any part hereof, or of any rights hereunder or interest herein of Distributor, shall be valid unless approved by Producer in writing, which approval shall not be unreasonably withheld.

No assignment or transfer by Producer of this Agreement or any part hereof, or of any rights hereunder or interest herein of Producer, shall be valid unless approved by Distributor in writing, which approval shall not be unreasonably withheld.

8. Remedies

By reason of the specialized nature of the recycled water service to be rendered, and for the further reason that the extent of any damage caused to a ~~party~~Party by any breach of this Agreement by the other ~~party~~Party may be extremely difficult to determine in monetary terms, it is agreed by the Parties hereto that an action for monetary damages is an inadequate remedy for any breach, and that specific performance, without precluding any other remedy available in equity or at law, will be necessary to furnish either Party hereto with an adequate remedy for the breach hereof.

1 **9. Indemnification**

2 Producer shall ~~save-indemnify, defend (with counsel acceptable to Distributor)~~
3 and hold harmless Distributor, its officers, agents and employees, free and
4 harmless from any and all cost liability, damages or health-related claims arising
5 out of any act or omission to act, including any negligent act, by Producer, its
6 officers, officials, agents or employees arising out of the Producer's performance
7 of its obligation under this Agreement. Distributor shall indemnify, defend (with
8 counsel acceptable to Producer) and hold harmless save Producer, its officers,
9 officials, agents and employees, free and harmless from any and all cost liability,
10 damages or health-related claims arising out of any act or omission to act,
11 including any negligent act, by Distributor, its officers, agents or employees
12 arising out of the Distributor's performance of its obligation under this Agreement.

13 **10. Dispute Resolution**

14 Any controversies between the Parties regarding the construction or application
15 of this Agreement, and claims arising out of this Agreement or its break, shall be
16 submitted to mediation within 30 days of the written request of a Party after the
17 service of that request on the other Party. The Parties may agree on one
18 mediator. If they cannot agree on one mediator, the Party demanding mediation
19 shall request that the Presiding Judge of the Superior Court of Marin County
20 appoint a mediator. The mediation meeting shall not exceed one day (eight
21 hours), unless the Parties agree to extend said time. The cost of the mediator
22 shall be borne by the Parties equally. Mediation under this section is a condition
23 precedent to filing an action in any court.

24 The Parties shall make good faith efforts to resolve all claims and disputes related
25 to this Agreement at the lowest possible cost. Unless the Parties agree upon an
26 alternative forum of dispute resolution, any litigation concerning claims and
27 disputes related to this Agreement shall be filed in and timely prosecuted to
28 conclusion in the Superior Court in and for Marin County, and each ~~party~~Party
29 hereby waives its right to move to change venue.

30 **11. Governing Law**

31 This Agreement shall be governed, construed and enforced in accordance with
32 the laws of the State of California.

33 **12. Further Assurances**

34 Each of the Parties agrees to execute, and deliver to the other ~~parties~~Parties,
35 such documents and instruments, and take such actions, as may reasonably be
36 required to effectuate the terms and conditions of this Agreement; provided,
37 however, such covenant shall not have the effect of increasing the obligations of
38 any Party pursuant to this Agreement or require any representations and
39 warranties by any Party in addition to those of such ~~party~~Party set forth herein.

40 **13. Waiver**

41 No waiver of any right or obligation of any of the ~~parties~~Parties shall be effective
42 unless in writing, specifying such waiver, executed by the ~~party~~Party against
43 whom such waiver is sought to be enforced. A waiver by any of the ~~parties~~Parties
44 of any of its rights under this Agreement on any occasion shall not be a bar to the
45 exercise of the same right on any subsequent occasion or of any other right at
46 any time.

1 **~~14.~~ Presumptions**

2 ~~Because all of the parties have participated in preparing this Agreement, there~~
3 ~~shall be no presumption against any party on the ground that such party was~~
4 ~~responsible for preparing this Agreement or any part hereof.~~

5 **~~15.14.~~ Counterparts**

6 This Agreement may be executed in two or more counterparts and by electronic
7 signatures, each of which shall be deemed an original, but all of which shall
8 constitute one and the same instrument.

9 **~~16.~~ Entire Agreement**

10 ~~This Agreement constitutes the entire agreement between the parties regarding~~
11 ~~the subject matter hereof and thereof, and supersedes all prior or~~
12 ~~contemporaneous negotiations, understandings or agreements of the parties,~~
13 ~~whether written or oral, with respect to such subject matter.~~

14 **~~17.15.~~ Insurance**

15 Each Party shall be responsible for requiring all contractors that it retains for the
16 construction and construction-related tasks related to this Agreement to provide
17 insurance in the amounts and with the coverages consistent with its policies and
18 practice for projects involving similar construction costs and risks. Each Party
19 shall be responsible for obtaining from each such contractor a certificate of
20 insurance evidencing such coverage, and policy endorsements adding both
21 Parties, and their respective directors, officers, employees, agents, and
22 authorized volunteers as additional insureds to the contractor's Commercial
23 General Liability and Comprehensive Automobile Liability insurance policies,
24 which shall be provided to both Parties prior to the commencement of the
25 construction and/or construction-related tasks.

IN WITNESS WHEREOF, Producer and Distributor have caused this Agreement to be executed by their respective duly authorized officers effective as of the day and year first herein written below.

NOVATO SANITARY DISTRICT

By: _____

Board President

Dated: _____

Attest: _____

Board Secretary

~~Approved as to Form:~~

~~Novato Sanitary District Attorney~~

NORTH MARIN WATER DISTRICT

By _____

Board President

Dated: _____

Attest: _____

~~Board~~District Secretary

~~Approved as to Form:~~

~~North Marin Water District Counsel~~

EXHIBITS:

- 1 Exhibit A Point of Connection Detail – Deer Island RWTF
- Exhibit B Point of ~~Connection~~Delivery Detail – Davidson Street RWTF
- Exhibit C Producer’s Schedule of Sampling and Analysis
- ~~Exhibit D – Agreement for Grant Facilitation Services for North San Pablo Bay
Restoration and Reuse Project~~
- ~~Exhibit E – North Bay Water Reuse Authority Second Amended Memorandum of
Understanding~~
- Exhibit ~~FD~~ NSD Recycled Water Facility Expansion Basis of
Design Technical Memorandum 2015

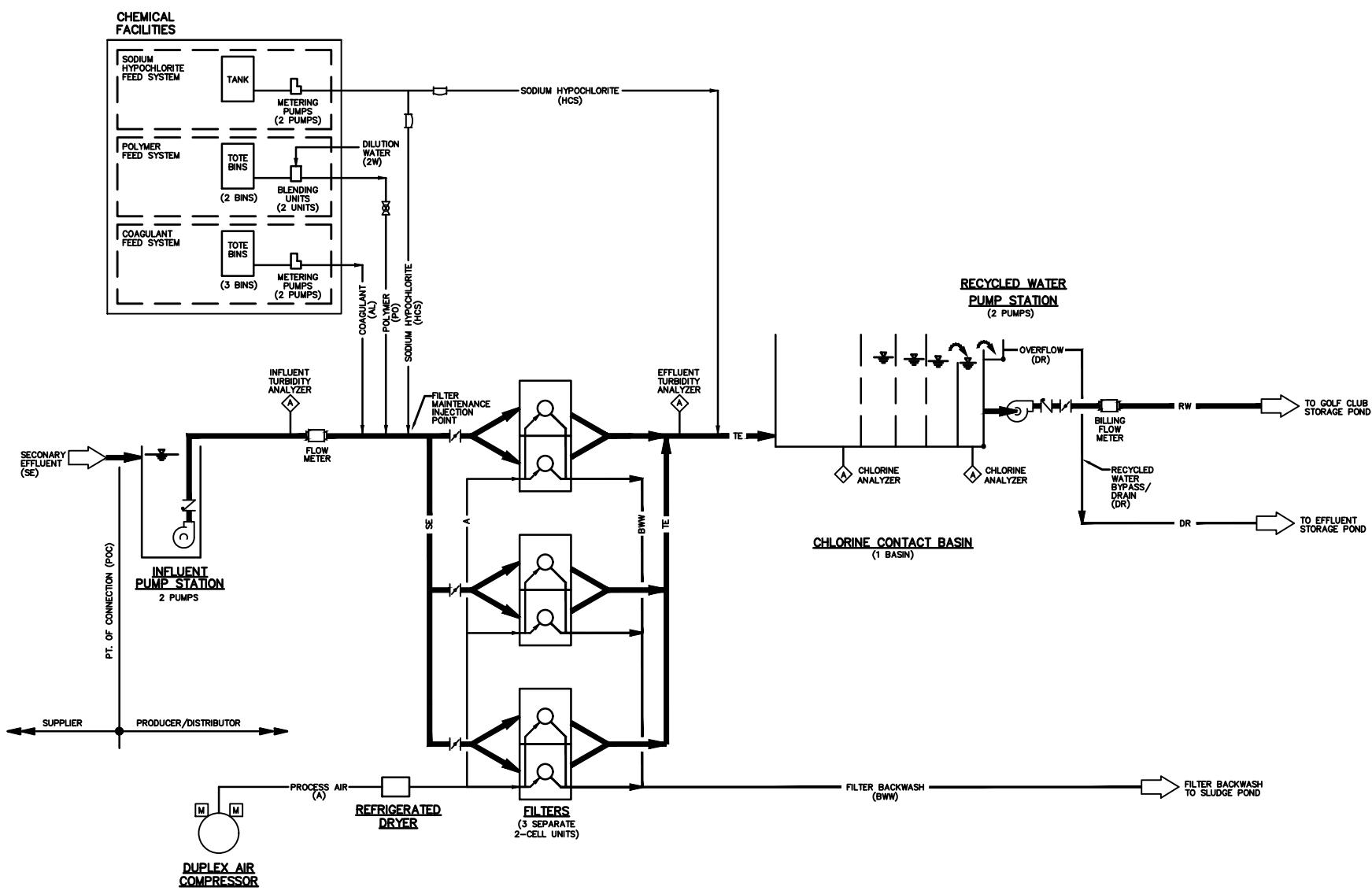


EXHIBIT A
DEER ISLAND RECYCLED WATER TREATMENT FACILITY
POINT OF CONNECTION



EXHIBIT B POINTS OF DELIVERY

EXHIBIT C

PRODUCER'S SCHEDULE OF SAMPLING & ANALYSIS

Constituent (units)	Limit	Type of sample	Frequency
Flow Rate (gallons/day)	500,000	Observation	Daily
Total Coliform (MPN/100 ml)	2.2 median	Grab (7 days)	Daily
	23 maximum	Grab (in any 30 day period)	Daily
Turbidity (NTU)	2 maximum	Daily average <u>within a 24-hour period</u>	Continuous
	5 maximum	5% of time <u>within a 24-hour period</u>	Continuous
	10 maximum	Any time	
Dissolved Oxygen (mg/l) <u>CT</u> <u>(the product of total chlorine residual and modal contact time measured at the same point)</u>	1.0 minimum <u>Must be >450 mg-minutes/L</u>	Grab <u>Meter/Calculated</u>	3/week <u>Continuous</u>
Dissolved Sulfide (mg/l)	0.1 maximum	Grab	3/week <u>(only if D.O. ≤ 1.0 mg/l)</u>

EXHIBIT D

NSD Recycled Water Facility Expansion
Basis of Design Technical Memorandum
2015

ON FILE

North Marin Water District (NMWD)
Recycled Water Capital Replacement & Expansion Fund Calculation
Fiscal Year Ended June 30, 2023

ATTACHMENT 2

<i>Recycled Water Financial Statements</i>					
	FY 20/21	FY13-FY21	FY 21/22	FY 22/23	
1 Operating Revenue	\$1,686,124	\$6,922,818	\$1,657,333	\$1,517,211	
<u>Operating & Administrative Expenses</u>					
2 Operations	\$93,351	\$291,234	\$77,915	\$9,276	
3 Transmission & Distribution	95,099	251,554	50,526	128,299	
4 Consumer Accounting (Billing/Customer Service)	1,600	5,782	1,579	1,627	
5 General and Administration	71,917	404,253	119,229	138,163	
6 Total Operating Expense Before Depreciation	\$261,967	\$952,823	\$249,249	\$277,365	
7 Net Operating Revenue Before Depreciation and Direct Costs	\$1,424,157	\$5,969,995	\$1,408,084	\$1,239,846	
<u>Direct Costs</u>					
8 Purchased Water - North/Central (Novato Sanitary District - NSD)	\$278,056	\$1,094,057	\$245,216	\$290,874	
9 Purchased Water - South (Las Gallinas Valley Sanitary District - LGVSD)	29,784	606,101	20,908	39,536	
10 Pumping - Booster Station South System - South (LGVSD)	4,525	26,128	3,689	2,258	
11 Deer Island Treatment Costs (Power, Chemicals & Water Treatment) - NMW	15,450	129,070	16,221	3,814	
12 Potable Water Consumed - NMWD	154,128	437,635	81,964	67,496	
13 Total Direct Costs	\$481,943	\$2,292,991	\$367,998	\$403,978	
14 Net Operating Revenue Before Depreciation	\$942,214	\$3,677,004	\$1,040,086	\$835,868	
Net Operating Revenue Split #1 - Based on Water Produced					Cumulative
15 North/Central Service Area (NSD/NMWD)	\$782,956	\$3,602,682	\$ 803,131	\$ 633,737	\$ 5,039,550
16 South Service Area (LGVSD/NMWD)	163,681	926,443	237,224	211,331	1,374,998
17 Deer Island & Potable Water	(4,423)	90,093	(268)	(9,201)	80,624
18 Total Net Revenue Split #1	\$942,214	\$4,619,218	1,040,086	835,868	6,495,172
Net Operating Revenue Split #2 ¹ - Based on RW System Deprecation					
19 NSD	\$352,423	\$1,818,499	\$361,504	\$282,970	\$ 2,462,973
20 LGVSD	46,073	260,775	66,774	59,466	387,014
21 NMWD - North/Central	430,533	1,784,183	441,627	350,767	2,576,577
22 NMWD - South	117,608	665,668	170,450	151,865	987,984
23 NMWD - Deer Island & Potable	(4,423)	90,093	(268)	(9,201)	80,624
24 Total Net Revenue Split #2	\$942,214	\$4,619,218	\$1,040,086	\$835,868	6,495,172
Less Distributions :					
25 To NSD		(305,711)			(305,711)
26 To LGVSD					
27 To NMWD - North/Central					
28 To NMWD - South					
Total Distributions					(\$305,711)
Capital Replace & Expansion Fund less Distributions					
29 Novato Sanitary Recyled Water Capital Replacement & Expansion Fund (NSRW Fund)	\$1,512,788	\$1,512,788	\$1,874,292	\$2,157,262	\$2,157,262
30 Las Gallinas Recycled Water Capital Replacement & Expansion Fund (LGRW Fund)	260,775	260,775	327,548	387,014	387,014
31 North Marin Recycled Water North-Central Service Area Capital Replacement & Expansion Fund (NMRW-N/C Fund)	1,784,183	1,784,183	2,225,810	2,576,577	2,576,577
32 North Marin Recycled Water South Service Area Capital Replacement & Expansion Fund (NMRW-South Fund)	665,668	665,668	836,118	987,984	987,984
33 NMWD - Deer Island & Potable ²	90,093	90,093	89,824	80,624	80,624
34 Balance Capital Replacement & Expansion Fund	\$4,313,507	\$4,313,507	\$5,353,593	\$6,189,461	\$6,189,461

North Marin Water District (NMWD)
Recycled Water Capital Replacement & Expansion Fund Calculation
Fiscal Year Ended June 30, 2023

Recycled Water Financial Statements

	FY 20/21	FY13-FY21	FY 21/22	FY 22/23
1 Recycled Water Capital Replacement and Expansion Funds: The Inter Agency Agreements for Recycled Water between NSD, LGVSD & NMWD in 2011, with current amendments (approved LGVSD, proposed NSD), require that any payments to the Distributor (NMWD) by the End User (Consumers) in excess of actual costs (marginal payments) shall be deposited in a fund for each entity. Operation and Maintenance Costs are defined as the actual cost of: labor (including general and administrative overhead plus tools and supplies normally applied), equipment and vehicle				
2 Includes contributions to Deer Island Capital Reserve Fund (DICRF): The State Revolving Fund (SRF) loan agreement for construction of the Deer Island RW Facility requires the District to establish and maintain a Water Recycling Capital Reserve Fund (WRCRF) for the expansion, major repair, or replacement of the water recycling facilities. The WRCRF is maintained in compliance with the State Water Resources Control Board's "Policy for Implementing the State Revolving Fund for Construction of Wastewater Treatment Facilities" in effect at the time the agreement was executed, July 2006. NMWD is required to deposit a minimum reserve of 0.5% of the SRF loan amount each year for a period of ten years. The balance in the DICRF is \$215,000 (\$4.3M x 0.5% x 10 years).				

* Capital Replacement and Expansion Fund = total from calculation above - \$5,974,461 + DI Fund + DI Debt SRF Covenant (account 12630-05-00) (\$5,974,461+\$215,000+\$80,624=\$6,189,461).

Fund Capital Replacement & Expansion Fund through FY 22/23				Journal Entry	
NSDRW Capital Replacement & Expansion Fund	1,874,292	12631-05-00	282,970	2,157,262	
LGVSD Capital Replacement & Expansion Fund	327,548	12632-05-00	59,466	387,014	
Restricted Cash - RWF Replacement Fund	215,000	12630-05-00	-	215,000	
NMRW - South Capital Replacement & Expansion Fund	836,118	12633-05-00	151,865	987,984	
NMRW - North/Central Capital Replacement & Expansion Fund	2,225,810	12634-05-00	216,391	2,442,200	
	5,478,769		710,692	6,189,461	
Unrestricted	730,935	13509-05-00	(710,692)	20,243	
Deer Island SRF Requirement	-	12630-05-00		-	
SRF North/South Reserve Fund	614,299	12635-05-00		614,299	
SRF Central Reserve Fund	275,773	12636-05-00		275,773	
Workers Comp	780	12628-05-00		780	
Operating Reserve	67,293	12627-05-00		67,293	
	7,167,848		-	7,167,848	

7

**MEMORANDUM**

To: Board of Directors
From: Eric Miller, Assistant GM/Chief Engineer *EM*
Subject: Cost Sharing for 2025 Urban Water Management Plan Update
T:\GM\Urban Water Management Plans\UWMP 2025\letter agreement BOD memo.docx

Date: November 5, 2024

RECOMMENDED ACTION: Board authorize General Manager to enter into Letter Agreement with the City of Santa Rosa to fund consulting services for preparation of the 2025 Urban Water Management Plan Water Demand Analysis and Water Conservation Measures Update

FINANCIAL IMPACT: \$56,988 plus \$3,232 contingency (included in FY24/25 Budget)

The California Water Code requires every urban water supplier that either provides over 3,000 acre-feet of water annually, or serves more than 3,000 urban connections to submit an Urban Water Management Plan (UWMP). Section 2.7 of the Restructured Agreement with the Sonoma County Water Agency (SCWA) states: "The Agency shall periodically prepare a draft regional Urban Water Management Plan pursuant to the Water Code for consideration by the water contractors." The next UWMP (2025) is due for submittal to the Department of Water Resources by June 30, 2026.

Again, as was done in 2010, 2015 and 2020, the Water Contractors have combined efforts to hire a common consultant to update the Water Demand Analysis and Water Conservation Measures for the 2025 Urban Water Management Plan. The City of Santa Rosa has agreed to be the project manager and contracting entity for the consultant's work.

A Letter Agreement between the City of Santa Rosa and the participating Water Contractors to share the cost of the contract with the consultant, EKI Environment and Water (Burlingame, CA), is attached. The District's portion of the total cost for the work is \$56,988. The Board is requested to authorize the General Manager to execute the Letter Agreement with the City of Santa Rosa.

The consultant's analysis will provide the District with an updated water demand and updated estimate of water conservation savings consistent with methodology used by all of the other contractors. Once the demand and water conservation information are available, the District will complete its own UWMP for the Novato Service Area with input from SCWA. Any final Urban

Water Management Plan will be reviewed by District staff and our legal counsel prior to a request for Board adoption.

RECOMMENDATION

Board authorize General Manager to execute a Letter Agreement with the City of Santa Rosa to share cost of EKI's work to update Water Demand and Water Conservation Analysis for the 2025 UWMP in the amount of \$56,988, with a 5% contingency (\$3,232).

ATTACHMENTS

1. Letter Agreement Between and Among City of Santa Rosa and North Marin Water District and other Water Contractors

Letter Agreement
Between and Among City of Santa Rosa
And
Cities of Rohnert Park, Petaluma, Sonoma, Cotati, Town of Windsor
And
Marin Municipal Water District, North Marin Water District and Valley of the Moon Water District
For
Funding Consulting Services for Preparation of the 2025 Urban Water Management Plan
Water Demand Analysis and Water Conservation Measures Update

1. General

The City of Santa Rosa and other Parties to this Letter Agreement (Cities of Rohnert Park, Petaluma, Sonoma, Cotati, Town of Windsor and Marin Municipal Water, North Marin and Valley of the Moon Water Districts) cooperatively prepared the Scope of Work for Consulting Services for Preparation of the 2025 Urban Water Management Plan Water Demand Analysis and Water Conservation Measures Update. The City of Santa Rosa has agreed to contract with EKI Environment & Water, Inc. ("Consultant") for this work. The Parties now desire to establish a cost sharing arrangement whereby the Parties will jointly fund the work administered by the City of Santa Rosa.

2. Agreement for Professional Services and Scope of Work

The Agreement for Professional Services with Consultant for Preparation of the 2025 Urban Water Management Plan Water Demand Analysis and Water Conservation Measures Update ("Services Agreement") including the collectively prepared Scope of Work

Letter Agreement

is attached as Exhibit A to this Letter Agreement (“Scope of Work” or “Work”) and establishes the work to be undertaken by Consultant and administered by the City of Santa Rosa.

3. Cost Share

The Parties agree that the base cost of the Work performed, and not including optional tasks or extra services, under the Services Agreement shall be shared fifty percent (50%) on an equal basis and fifty percent (50%) on a pro-rated basis based on the number of water service connections existing in each Party’s service territory as of July 2024 (collectively “Cost Share”). The Cost Share for each Party is shown on Exhibit B attached to this Letter Agreement and incorporated by this reference.

4. Cost for Increase Scope of Work

Any Party that requests that Consultant perform optional tasks or extra services will be solely responsible for paying for those additional services. No increased Scope of Work affecting all Parties shall be authorized under the Services Agreement without the prior written consent of all Parties to this Letter Agreement, and any cost for said increased Scope of Work shall be shared among the Parties in the same manner as described in Section 3 in this Letter Agreement.

5. Payment

Payment to the City of Santa Rosa by each Party pursuant to the Cost Share identified in Section 3 shall be made as follows:

1. Fifty percent (50%) of Cost Share made within thirty (30) days of receipt of an invoice from City of Santa Rosa subsequent to Consultant executing the Services Agreement.

Letter Agreement

2. Remainder payment within thirty (30) days upon receipt of invoice subsequent to Consultant completing the Work (anticipated to be on January 2026) Payments shall be made payable to the City of Santa Rosa and mailed to Santa Rosa Water, Attn: Claire Nordlie at 69 Stony Circle, Santa Rosa, CA 95401.

6. Effective Date

The Parties agree to execute this Letter Agreement by **December 2, 2024**, which shall be the effective date of this Letter Agreement ("Effective Date"). If all Parties have not executed this Letter Agreement by the Effective Date, the Parties who have executed this Letter Agreement agree that the Cost Share will be recalculated among participating Parties as described in Section 3 and the Services Agreement will be amended to only include participating parties. No later than December 9, 2024, the City of Santa Rosa will notify Parties who have executed this Letter Agreement of the recalculated cost share in writing.

7. Letter Agreement Authorization

This Letter Agreement constitutes the entire understanding and agreement of the Parties and supersedes all negotiations or previous agreements between the parties with respect to all or any part of the transaction discussed in this Letter Agreement. This Letter Agreement may be signed in counterparts. By signing below, the Parties signify authorization to enter into this Letter Agreement.

Jennifer Burke
City of Santa Rosa

Date

Letter Agreement

Marcela Piedra
City of Rohnert Park

Date

Peggy Flynn
City of Petaluma

Date

David Guhin
City of Sonoma

Date

Damien O'Bid
City of Cotati

Date

Jon Davis
Town of Windsor

Date

Letter Agreement

Bennett Horenstein
Marin Municipal Water District

Date

Tony Williams
North Marin Water District

Date

Matt Fullner
Valley of the Moon Water District

Date

Attachments: Exhibit A – Professional Services Agreement with EKI Environment & Water, Inc.
 Exhibit B – Cost Share

EXHIBIT A

CITY OF SANTA ROSA
PROFESSIONAL SERVICES AGREEMENT
WITH EKI ENVIRONMENT & WATER, INC.

Exhibit B

Base Report Estimated Total Cost

50% Share equal basis (\$147,850 ÷ 9 contractors)

*Optional Task (Tasks 5, \$10,400; Task 6, \$17,500)-Flat fee per agency

Contractor	No. Services	Streamline Report 50% Share Equal Basis	Streamline Report 50% Share Prorated	Total Streamline Report Only	10% Contingency	Total Streamline Report with Contingency	Optional Tasks	Total Streamline report only with optional tasks
Santa Rosa	54,309	\$ 16,428	\$ 41,932	\$ 58,360	\$ 5,836	\$ 64,196	\$ 27,900	\$ 86,263
Rohnert Park	10,529	\$ 16,428	\$ 8,130	\$ 24,557	\$ 2,456	\$ 27,013	\$ 27,900	\$ 52,457
Cotati	2,701	\$ 16,428	\$ 2,085	\$ 18,513	\$ 1,851	\$ 20,364	\$ 27,900	\$ 46,413
VOMWD	7,178	\$ 16,428	\$ 5,542	\$ 21,970	\$ 2,197	\$ 24,167	\$ 27,900	\$ 49,870
Sonoma	4,520	\$ 16,428	\$ 3,490	\$ 19,918	\$ 1,992	\$ 21,910	\$ 27,900	\$ 47,818
Petaluma	20,422	\$ 16,428	\$ 15,768	\$ 32,196	\$ 3,220	\$ 35,416	\$ 27,900	\$ 60,096
MMWD	61,845	\$ 16,428	\$ 47,751	\$ 64,179	\$ 6,418	\$ 70,597	\$ 27,900	\$ 92,079
NMWD	20,583	\$ 16,428	\$ 15,892	\$ 32,320	\$ 3,232	\$ 35,552	\$ 27,900	\$ 60,220
Windsor	9,402	\$ 16,428	\$ 7,259	\$ 23,688	\$ 2,369	\$ 26,057	\$ 27,900	\$ 51,588
Total	191,489	\$ 147,850	\$ 147,850	\$ 295,701	\$ 29,571	\$ 325,272	\$ 251,100	\$ 546,804

**Optional Tasks are agency-selected, with fees identified for planning purposes and billed accordingly.*

8

**MEMORANDUM**

To: Board of Directors
From: Eric Miller, Assistant GM/Chief Engineer *EM*
Subject: NMWD Administration and Laboratory Upgrade Project – Construction Management Services Contract Amendment

Date: November 5, 2024

Memo.docx

R:\Folders by Job No\6000 jobs\6501.44 NMWD Office_Yard Bldg Renovation\BOD Memos\2024 1105 - CCM amendment\6501.44 Amend CCM Agrmt BOD

RECOMMENDED ACTION: Board authorize General Manager to amend the Agreement with Consolidated CM

FINANCIAL IMPACT: \$100,000 (included in FY24/25 CIP Budget)

The purpose of this memo is to request a fifth amendment to the Consulting Services Agreement with Consolidated CM (CCM) for construction-phase services for the District's Administration and Laboratory Upgrade project (J-1.6501.44). The Board approved the initial agreement with CCM at the May 18, 2021 Board meeting in the amount of \$179,000 for project coordination and pre-construction support services.

The Board approved the first amendment to the CCM agreement at the April 19, 2022 Board meeting in the amount of \$47,426 to support the project's bidding phase. The Board approved the second amendment to the CCM agreement at the June 7, 2022 Board meeting in the amount of \$952,388 for support services through the initial planned duration of the construction phase. The Board approved the third amendment with CCM at the July 18, 2023 Board meeting in the amount of \$319,208, and the fourth amendment with CCM at the February 6, 2024 Board meeting in the amount of \$427,052. Due to delays in construction, the third and fourth amendments were necessary to maintain support services beyond the initial planned duration of the construction phase, which combined represented an additional 11 months of construction, through August 2024. Contract delays have continued beyond August 2024, and CCM has been diligent in preserving their contract budget to the maximum extent possible.

Staff is now proposing a fifth amendment to the CCM agreement for continued support through the extended completion date which is anticipated to continue through December 2024. CCM has provided a proposal for a not to exceed cost of \$100,000; which includes an additional \$50,000 for part-time construction management, inspections, final documentation and project closeout; and an additional \$50,000 for an optional task for as needed claims support following project closeout, should that become necessary.

A summary of the construction management agreement is provided in Table 1 below:

Table 1: Construction Management Agreement with CCM

Project Phase	Document	Board Approval	Amount
Pre-Construction	Original Agreement	May 18, 2021	\$179,000
Permitting and Bidding	Amendment No. 1	April 19, 2022	\$47,426
Construction	Amendment No. 2	June 7, 2022	\$952,388
Construction Delay 1	Amendment No. 3	July 18, 2023	\$319,208
Construction Delay 2	Amendment No. 4	February 6, 2024	\$427,052
Construction Delay 3	Amendment No. 5	* November 5, 2024	\$100,000
CCM Agreement Total			\$2,025,074

** pending Board approval*

RECOMMENDATION

Board authorize General Manager to amend the agreement with Consolidated CM for the Administration and Laboratory Upgrade Project in the amount of \$100,000.

ATTACHMENTS

1. CCM Contract Amendment No. 5
2. CCM Extended CM Services Proposal, dated October 23, 2024
3. CCM Claims Support Services Proposal, dated October 23, 2024

NORTH MARIN WATER DISTRICT

CONTRACT AMENDMENT

PROJECT: NMWD Admin & Lab Upgrade

AMENDMENT NO.: 5

DATE: November 5, 2024

JOB NO.: 1 6501.44

TO CONSULTANT: (name and address)

ORIGINAL CONTRACT DATE: June 2021

Attention: Matt Scoble
 Consolidated CM
 180 Grand Ave., Suite 1520
 Oakland, CA 94612

CONTRACT FOR:
 Construction Management services for the
 NMWD Admin & Lab Upgrade project

The Contract is changed as follows:

For construction management services during the construction phase \$100,000

Not Valid until signed by the District and Consultant

The original Contract Sum was	\$179,000
Net change by previously authorized Amendments (1-4)	\$1,746,074
The Contract Sum prior to this Amendment was	\$1,925,074
The Contract Sum will be increased by this Amendment in the maximum amount of	\$100,000
The new Contract Sum including this Amendment will be	\$2,025,074
The Contract Time will be changed by	6 months
The date of Substantial Completion as of the date of this Amendment therefore is	June 30, 2025

Consultant Signature

District Signature

Print Name

Print Name

Date

Date

cc: Consultant
 Job File



Professional Construction Management

October 23, 2024

North Marin Water District 999
Rush Creek Place
P.O. Box 146
Novato, California 94948

Subject: Budget Augmentation Proposal to Extend CM Services for the
North Marin Water District - Administration and Laboratory Upgrade Project
NMWD File 1 6501.44

Attention: Eric Miller, PE – Assistant GM/Chief Engineer

Dear Mr. Miller,

This proposal is to provide the District with CM services during the extended completion phase of the NMWD Administration and Laboratory Upgrade Project, anticipated to continue through December 2024.

This proposal is for CM services through December 2024 at the same rate of \$203/hour. We propose a budget of 30 hrs per week, for a total cost not to exceed \$50,000 (246 hrs.)

We look forward to continuing to support the Water District until project completion. If you have and questions or wish changes, please feel free to contact me on my mobile at (415) 385-2821.

Very truly yours,
Consolidated CM, Inc.

A handwritten signature in black ink, appearing to read "Matt Scoble", with a long horizontal flourish extending to the right.

Matt Scoble, PE, QSD/P
Executive Vice President

Cc: accounting



Professional Construction Management

October 23, 2024

North Marin Water District 999
Rush Creek Place
P.O. Box 146
Novato, California 94948

Subject: Budget Proposal for Claims Support Services
North Marin Water District - Administration and Laboratory Upgrade Project
NMWD File 1 6501.44

Attention: Eric Miller, PE – Assistant GM/Chief Engineer

Dear Mr. Miller,

This proposal is to provide the District with as needed claims support services during the anticipated claims phase of the NMWD Administration and Laboratory Upgrade Project, in January and February, 2025.

This proposal is for CM services at the CM rate of \$203/hour. We can also offer administrative support services at the rate of \$97/hr. This effort is anticipated to take an average of 20 hours per week for the CM, and up to 20 hours per week for the administrative support, as needed. The total cost of this proposal is not to exceed \$50,000.

We look forward to continuing to support the Water District through this process. If you have any questions or require changes, please feel free to contact me on my mobile at (415) 385-2821.

Very truly yours,
Consolidated CM, Inc.

A handwritten signature in dark ink, appearing to read "Matt Scoble", with a long horizontal flourish extending to the right.

Matt Scoble, PE, QSD/P
Executive Vice President

Cc: accounting

9

**MEMORANDUM**

To: Board of Directors

November 5, 2024

From: Julie Blue, Auditor-Controller *JB*

Subj: Employer Assisted Housing Program Loan Request – Pablo Ramudo

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RECOMMENDED ACTION: Approve Employer Assisted Housing Program Loan Request for \$300,000, and authorize the General Manager to sign the required documents to close the purchase transaction.

FINANCIAL IMPACT: \$300,000 Loan from Liability Contingency Fund

This memo provides details regarding a loan request under the District's Employer Assisted Housing Program (EAHP), Board approved Policy No. 42. Pablo Ramudo is the Water Quality Supervisor and he has worked at the District for over twenty-one years. He has requested an EAHP District loan of \$300,000 to purchase a market rate home in Novato. His request is within the parameters of the Board approved EAHP which, over the years, has provided housing loans to over 14 District employees.

The 4-bedroom, 3 bath, 2,700 square foot home is located on Drakewood Place and the sale price is \$1,500,000. A down payment of \$396,500 will be used to purchase the home and the first deed of trust will be \$803,500. The EAHP loan would cover the balance of the loan of \$300,000. Under the EAHP policy the District will earn interest on the loan, equal to what it would have earned if the funds had been invested in the District's investment portfolio.

The \$300,000 loan will be funded from the Liability Contingency Fund. Currently there is one EAHP loan of \$250,000 borrowed against the \$1.5 million that the Board has authorized for the program. With Pablo's \$300,000 loan, the remaining balance for future housing assistance will be reduced to \$950,000.

RECOMMENDATION

Approve \$300,000 Employer Assisted Housing Program Loan Request, and authorize the General Manager to sign the documents to close the purchase transaction.

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**MEMORANDUM**

To: Board of Directors
From: Robert Clark, Operations / Maintenance Superintendent
Subject: FY 2023/24 End of Year Progress Report – Operations/Maintenance
X:\MAINT SUP\2024\BOD\End of Year 23-24 O&M Update a.docx

November 5, 2024

RECOMMENDED ACTION: Information**FINANCIAL IMPACT:** NoneOperations Summary

Operations activities and accomplishments during FY2023/24 (FY24) included completion of five capital improvement projects: Stafford Treatment Plant filter underdrain removal, filter basin recoating, polish filter pipe gallery recoating, change out of the granular activated carbon and the Point Reyes Treatment Plant pipe gallery replacement. The group also completed 8 Operations projects for tank cleaning, pipe labeling and spillway cleaning.

Operations staff also completed just over 250 routine maintenance tasks during the year with just 8% unplanned tasks.

Stafford Treatment Plant (STP) produced water through November 11, 2023, with a total fall production of 410 million gallons (MG). After shutdown, the filter underdrain project was started, and due to complications and challenges, no further production was realized during the FY 2023-2024. Stafford Lake was filled to capacity by February 4, 2024 and continued spilling through mid-April.

Novato Water System

- Novato production was up 5.9% in FY24 compared to the previous year; average daily production was 6.5 million gallons per day (MGD), with a peak day demand of 11.14 MGD on August 21, 2023.
- Purchased recycled water for the period was 185 MG, down 8% from last year. This decreased volume was due to primarily cooler weather this year and no residential recycled water program.

West Marin Water System

- West Marin water demand was up 13% for FY24 and average daily production was 187,083 gallons per day with a peak day demand of 321,800 gallons.
- The main pipe gallery was replaced at the Point Reyes Treatment Plant (PRTP), which included 9 new automatic valves that allow for automated operation of the plant.

- Gallagher Well (#1 and #2) pump controls were replaced with improved communications between the wellsite and the PRTP.

Oceana Marin Wastewater System

- During the FY24, force main pump flow averaged 18,786 gallons per day with a peak day of 115,559 gallons. The significant winter storms of 2022-2023 were the primary driver for the decrease (8%). Continued infiltration and intrusion inspection efforts, identified 5 locations where projects are under way to repair the intrusion points.
- The pond relining project began this summer so the goal was to reduce the freeboard in the storage pond to zero as soon as we could.

Water Quality Summary

Staff concentrated on the Cross-Connection Control policy changes brought about by the new State compliance program. These policy update recommendations will be brought to the Board of Directors in the coming months.

Maintenance Summary

Maintenance activities and accomplishments during FY24 included 28 facility improvement projects and 365 routine maintenance tasks. Work was completed on the eight STP variable frequency drive replacements. Replacement of Pumps #1 and #3 at the San Marin and the Ridge Road pump stations were completed. Gallagher Well pump motor controls and variable frequency drive upgrade was done. The Admin building renovation and new laboratory continues to require much staff time including District-supplied systems for security, audio-visual, and data support.

Cross-Connection Control (CCC)

- The District currently has 2,357 backflow devices in Novato and 88 in West Marin with a goal to complete annual tests each year. All but 16 tests were completed this year, or just 0.7% of the total number of devices. This is the best performance we have ever seen.
- Recycled water service inspection and testing was conducted by CCC staff for 25 percent of the Novato Recycled Water accounts. This includes a site review of recycled water use, overspray and leaks, and a shutdown of both the potable and recycled water services to verify that neither of the services supply water to the other. No cross connections issues were found.
- Point Reyes is scheduled for a complete system survey to ensure we have addressed all CCC needs in this service area.

Asset Management

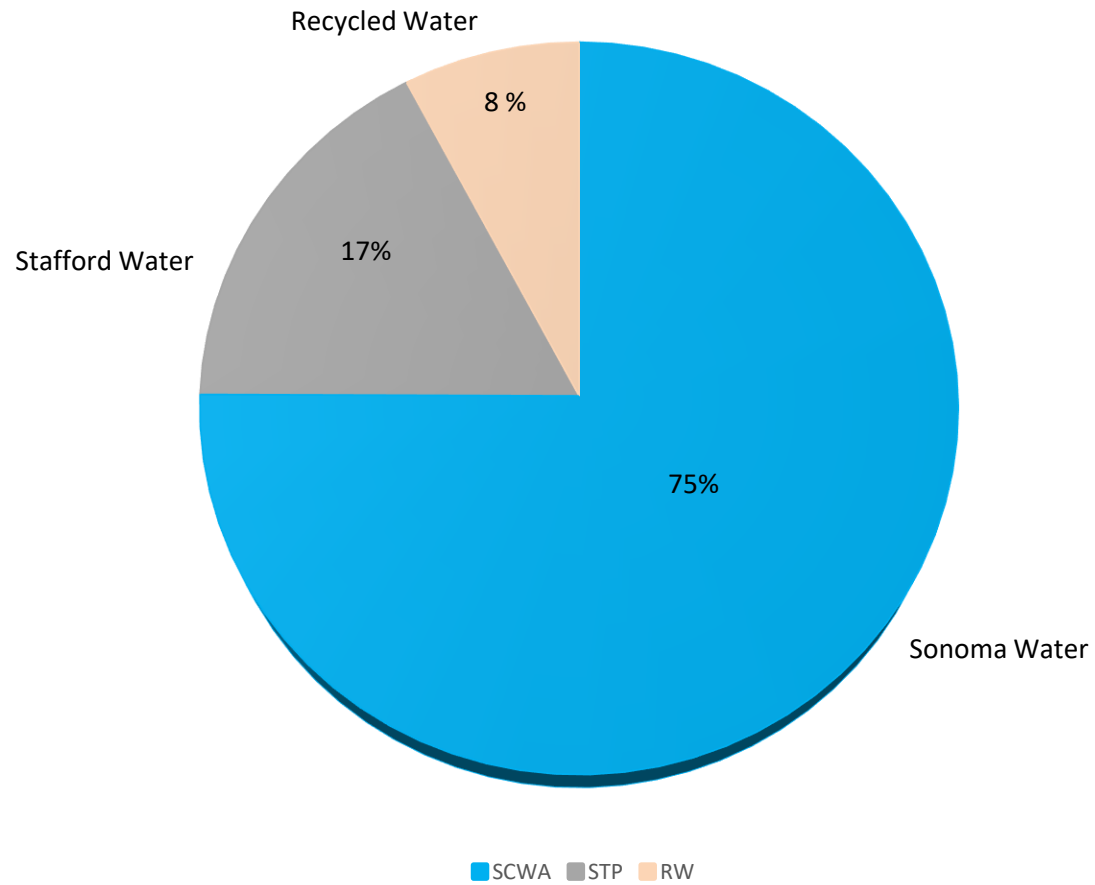
- Nexgen asset management software has been in a fairly steady state for the last year, the Maintenance and Operations groups are utilizing it for predictive, preventative, corrective work orders and small projects.
- There are two areas of focus: one is, in order to get real and useful cost data and meaningful comparisons of Preventative versus Corrective work orders, every work order needs to track time. The second area is mapping. Engineering is in the final stages of migrating our GIS to ESRI, which will simplify the way we use GIS within Nexgen compared to our current arrangement.
- The Overall maintenance tracking for all staff for the FY indicates that we still need some work around scheduling work when the Stafford Treatment Plant is off line which resulted in 104 unnecessary work orders being generated. Our ratio of corrective to preventative work orders are at 16% which is on the higher side of the 15-20 % we strive for.

Building and Grounds

- Spring weed control program was completed and we continue to see more tree issues at various facility sites. This required our staff, along with contractors, to perform more tree work than was anticipated.

ATTACHMENT: 1. Novato Water Supply FY 2023-24

Novato Water Supply FY 23-24



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DISBURSEMENTS - DATED OCTOBER 17, 2024

Date Prepared 10/14/24

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
90771- 90773	US Bank Card	ACWA Conf Regist (\$899), Concrete Pumping (580 Canyon Rd-Pipe Proj - \$1,673), Shelving for Lab (\$4,756), Online Form Subscription (\$1,224), Rapid Access System (Fire Protection \$665), Internet Services for Pt Reyes, Adaptor (STP \$310), Zoom Subscription, CSMFO Webinar, CA Water Jobs Posting (\$2,090), Micosoft Monthly Subscriptions, Handshake Job Posting, Server Room IT Equipment (\$12,541) & Indeed Job Posting (\$500)	\$25,981.45
1	100 Wood Hollow Dr. Owner LLC	October 2024 Operating Expenses	6,767.06
2	Able Tire & Brake	Tire Repair (Trailer) & Tires (2) ('09 J.D. Backhoe) (\$2,900)	3,278.79
3	Alpha Analytical Labs	Lab Testing - Novato & West Marin	7,912.00
4		Retiree Exp Reimb (Oct Health Ins)	1,417.18
5	Argonaut Constructors Inc.	Prog Pymt#5: Oceana Marin Rehabilitation Project (Balance Remaining on Contract \$187,727)	492,052.50
6	Backflow Distributors	Freeze Protection Backflow Bags (10) (\$789), Backflow Test, Filters (3) & Gaskets (3)	937.06
7	Bold & Polisner	September Legal Fees-NMWD Portion Potter Valley FERC & General (\$1,845)	2,137.50
8	Borski, Charles Scott	West Marin "Toilet Rebate" Program	100.00
9		Retiree Exp Reimb (Oct Health Ins)	488.01
10	CDW-Government, Inc.	Battery Backups (2) (Server Rack- \$3,331) & Annual Anti-Virus Subscription (\$1,715)	5,046.65
11		Retiree Exp Reimb (Oct Health Ins)	548.98
12		Retiree Exp Reimb (Oct Health Ins)	548.98

Seq	Payable To	For	Amount
13	C.J. Brown & Company, CPAs	September Progress Billing Financial Statement Audit FY23-24	6,430.00
14	Comcast	October Internet (1250 Lynwood Dr)	212.81
15	Diesel Direct West	Diesel (211 Gal) (\$1,020) & Gasoline (902 gal) (\$3,772)	4,791.80
16	E & M	Lynwood Pump Station Power Module Upgrade - Materials (Balance on Contract \$166,435)	27,311.27
17	Enterprise FM Trust	Monthly Leases for Nissan Rogue (2), Nissan Frontier (2), F-150's (7), F-250's (4), Ford Rangers (6), Chevy Bolts (2), Chevy Colorado & Nissan Leaf	14,092.49
18	Evoqua Water Technologies LLC	Deionized Water System for Lab Refurbish	6,160.00
19	Fisher Scientific	Bottles (144)	98.97
20	Friedman's Home Improvement	Lumber, Hardware & Tools to Build New Structure for Hayden Hydro Tank	5,907.70
21	Frizelle Enos Feeds	Dust Control for Vineyard Road	586.95
22	Frontier Communications	Leased Lines	1,689.06
23	Frontier Communications	October Internet (STP)	640.00
24	Grainger	Warning Stakes (10) (\$342), Square Tubes (2-10') (\$338), Racks (2) (\$266), Miscellaneous Maintenance Tools & Supplies	1,526.79
25	Highland Commercial Roofing	Final Pymt: Yard Shop & Warehouse Roof Replacement	36,232.00
26	InfoSend, Inc.	September Processing Fee for Water Bills (\$4,630), Postage (\$1,322) & Monthly Support Fee (\$866)	6,818.09
27		Retiree Exp Reimb (Oct Health Ins)	548.98
28	Ken Grady Company, Inc	'O' Rings (4)	33.91
29		Retiree Exp Reimb (Oct Health Ins)	548.98
30		Retiree Exp Reimb (Oct Health Ins)	1,417.18
31		Retiree Exp Reimb (Oct Health Ins)	548.98

Seq	Payable To	For	Amount
32	Marin County Ford	Service Parts ('18 Transit Cargo Van, '12 F250-\$884, '20 F150)	1,227.78
33	County of Marin	Encroachment Permit (83 Mesa Rd-Pt. Reyes Station)	736.20
34	McLellan Co, WK	Miscellaneous Paving	8,028.86
35	Noll & Tam Architects	Prog Pymt#39: Architecture & Engineering Services for Admin Headquarters Upgrade (Balance Remaining on Contract \$87,912)	16,367.50
36	NorCal Pump & Well Drilling	Gallagher Well#1 Assess/Rehab	77,808.00
37	North Marin Auto Parts	Miscellaneous Maintenance Tools & Supplies	1,890.97
38	North Bay Gas	Breathing Air & Nitrogen (STP)	134.15
39	North Bay Watershed Assoc.	FY 24/25 Dues (Watershed Stewardship Plans)	5,838.16
40	Novato Builders Supply	Lumber, Rebar, Drill Bit & Staples	507.03
41	Pace Supply	Meter Box Lids (6) (\$861), Couplings (4) (\$1,042) & Unions (20) (Less Credit of \$755 Received for Returned Spools)	1,408.88
42	Pacific Gas & Electric Co	Power: Bldgs/Yard (\$3,228), Other (\$35), Pumping (\$81,756), Rect/Cont (-\$260) & TP (\$-63)	84,695.15
43	Pini Hardware	Yard Tools (\$225) & Miscellaneous Maintenance Supplies	1,114.52
44	Pollard Water	Combination Wrench & Spanners (4)	166.79
45		Retiree Exp Reimb (Oct Health Ins)	548.98
46	Staples Advantage	Miscellaneous Office Supplies	54.75
47	State Water Resources Control	D5 Certification Renewal (Stompe)	105.00
48	Stompe, Brad	Exp Reimb: Safety Snacks April-Oct 2024	346.14
49	United Parcel Service	Delivery Services: Sent Backflow Device Kit for Repair/Calibration & Chlorine Scrubber Media for Testing	56.00
50	USA BlueBook	Hydrant Adaptors (6) (\$282) & Hydrant Out of Service Markers (12)	422.34

Seq	Payable To	For	Amount
51	Verizon Wireless	SCADA & AMI Collectors (\$650)	1,117.30
52	Waste Management	Waste Disposal	95.13
53	Williams, Anthony	Exp Reimb: American Society of Civil Engineers Membership (1/1/25-12/31/25)	326.00
54	Winzer Corporation	Misc Hardware	204.35
55	Yager Pump & Well Svc	Breaker (Telemetry Equipment)	254.32
TOTAL DISBURSEMENTS			<u>\$866,266.42</u>

The foregoing payroll and accounts payable vouchers totaling \$866,266.42 are hereby approved and authorized for payment.

<u>Julie Blue</u>	<u>10/15/2024</u>
Auditor-Controller	Date
<u>Erin M</u>	<u>10/15/2024</u>
General Manager <u>for TW</u>	Date

DISBURSEMENTS - DATED OCTOBER 24, 2024

Date Prepared 10/21/24

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

Seq	Payable To	For	Amount
P/R*	Employees	Net Payroll PPE 10/15/24	\$199,776.73
90776*	Internal Revenue Service	Federal & FICA Taxes PPE 10/15/24	89,815.44
90777*	State of California	State Taxes & SDI PPE 10/15/24	22,049.31
90778*	CalPERS	Pension Contribution PPE 10/15/24	55,607.39
90774*	Nationwide	Deferred Compensation PPE 10/15/24	16,126.77
90775*	Nationwide	Deferred Compensation 10/15/24 401A Match	2,834.95
1	100 Wood Hollow	November 2024 Rent for Wood Hollow	44,602.82
2	ACWA	Annual Agency Dues (1/25-12/25)	26,490.00
3	Aftertec Inc.	Aerial Photography (Rush Creek Place)	259.00
4	AED Inc	Conduits (251) (\$376), Pulling Tape (500'), O.M. Pond Rehab Project (\$904), PVC Sweep (4) (\$80) & (Socket Set, Conductors (100) (\$76)	1,493.71
5	All Star Rents	Concrete Saw Rental (1 Day) & Paving Roller Rental (4 Days-Rush Creek Place Paving)	1,333.53
6	Alpha Analytical Labs	Lab Testing	557.00
7	Associated Right of Way Serv	Prog Pymt#15: Valuation Services for Lynwood Pump Station Project (Balance Remaining on Contract \$35,465)	517.50
8	AT&T	Leased Lines	63.14
9	Bank of Marin	Bank of Marin Loan Principal & Interest (Pymt# 156 of 240) Aqueduct Energy Efficiency Project	46,066.67
10	Bay Area Air Quality Mgmt Dist	Annual Permit Renewal Fees (To Operate Fuel Pumps)	444.00
11	Buck Institute	November 2024 Rent	13,584.00
12	B.W.S. Distributors	Safety Gloves (60) & Glasses (17)	351.20

*Prepaid

Seq	Payable To	For	Amount
13	California Water Service	September Water Service (OM)	37.16
14	CA-NV Section AWWA	Marc Reischmann WQ Analyst Grade 3	100.00
15	Caltest Analytical Laboratory	Lab Testing (O.M.)	125.30
16	Comcast	Oct Internet Services (Buck Institute)	359.81
17	Core & Main	Coupling (4)	2,538.90
18	Dell Computers	PC's for Lab (3)	2,804.79
19	Diesel Direct West	Diesel (400 Gal) (\$1,905) & Gasoline (800 Gal) (\$3,364)	5,268.26
20	Farfour, Abderrahman	Refund over payment on closed account	99.80
21	Ferguson Waterworks	Meter 5/8" (84) (\$24,304), Meter 3" (5) (\$15,190) & Meter 2" (5) (\$5,461)	44,955.71
22	Grainger	Hepa Filter (\$260), Bi-pin (12) Cup Dispenser (2), Telescoping pole (2), Duster (2), Couplings (4), Threaded Rod (2), & Misc Supplies	970.50
23	HERC Rentals Inc.	Shoring Equipment	899.47
24	Sharon Jimenez	Refund excess advance over actual job cost	174.99
25	Kiosk Creative LLC	Novato Water Quality Report	1,620.00
26	Kleen Industrial Services	Garnet Filter (47 Tons) & Silica Sand Filter (32 Tons)	62,289.68
27	DOLI Washington	Qtrly WA WC Premium for Employee Working Remotely	26.07
28	Langston, Jeff L	Refund over payment on open account	356.42
29	Thomas LaRocca	Refund excess advance over actual job cost	2,300.00
30	Leontie, Gerald & Heidi	Refund over payment on open account	22.67
31	LGVSD	Recycled Water Deliveries (7/1/24-9/30/24)	13,240.54
32	Lincoln Life Employer Serv	Deferred Compensation PPE 10/15/24	9,991.05
32	Madgetech	Probe	161.47
33	Maggiora & Ghilotti	Prog Pymt#3: Crest Pump Station Project (Bal Rem on Contract \$1,334,447)	950.00

Seq	Payable To	For	Amount
34	MSI Litho	Window Envelopes	1,169.32
35	New Pig Corporation	Storm Drain Filter	150.11
36	Novato Sanitary District	July 2024 RW Operating Expense	71,226.29
37	ODP Business Solutions, LLC	Misc. Office Supplies	577.38
38	O'Reilly Auto Parts	Automotive Services Supplies	241.37
39	Pace Supply	Valves, Couplings, Elbows, Clamps, Wires & Misc. Supplies	12,866.52
40	Pacific Coast Cutters	Blacktop Cutting Services (Vallejo Ave-Pt. Reyes Station)	705.00
41	Point Reyes Prop Mgmt Assn	October HOA Fees (25 Giacomini Rd)	75.05
42	Quadient, Inc.	Postal Meter Rental (8/2024-8/2025)	481.74
43	Redwood Health Services, Inc.	September 2024 RHS Dental Claims & Fees Expense	7,666.41
44	RoadSafe Traffic Systems, Inc.	Striping Marker Paint (4 Cases)	490.69
45	RS Home Improvement, LLC	Refund Excess Advance Over Actual Job Cost	4,930.00
46	Service Station Systems	Annual Air Quality Test & Misc. Repair Costs For Two Fuel Tanks	1,251.56
47	Sonoma County Water Agency	September Contract Water	1,279,495.19
48	SPG Solar Facility XII, LLC	September Energy Delivered Under Solar Services Agreement	14,159.24
49	Stokes, James	Novato "Washer" Rebate Program	75.00
50	Thomas Scientific	Petri dish, Incubator Avantgarde (\$2,850), Binder Part, Tryptose Broth 500G, SporAmpule, Oxalic Acid, Medium, Sodium Hypochlorite & Lauryl Sulfate	3,957.66
51	Township Building Services	September Janitorial Services (Yard) (\$1,198) & (STP) (\$381)	1,579.21
52	US Bank	May and September Safekeeping Treasury Securities	310.25
53	US Postal Service	Meter Postage	1,500.00
54	Vulcan Materials Company	Pea & Sand (30 yds)	2,086.84

*Prepaid

Seq	Payable To	For	Amount
55	VWR International LLC	Cell Sample & Flask (Lab)	180.69
56	ZORO	Push Broom Heads (10), Locking plug (4) & Connector (2)	479.35
TOTAL DISBURSEMENTS			<u><u>\$2,076,920.62</u></u>

The foregoing payroll and accounts payable vouchers totaling \$2,076,920.62 are hereby approved and authorized for payment.

Aulie Blue 10/23/24
Auditor-Controller Date

[Signature] 10/23/24
General Manager Date

DISBURSEMENTS - DATED OCTOBER 31, 2024

Date Prepared 10/28/24



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	Alameda Electrical Distributors	Lever Wire (150)	\$97.06
2	Alten, Bobby	Refund Alternative Compliance Reg 15 Deposit	315.00
3	American Family Life Ins	AFLAC October 2024 Employee Paid Benefit	4,070.55
4	Arrigo, Nick	Novato "Cash For Grass" Rebate Program	1,000.00
5	Blue, Eileen	Reimbursement for Office Supplies	14.98
6	Brolly, Jenny	Novato "Washer " Rebate Program	75.00
7	Cole-Parmer Instrument	Logger Wireless	339.68
8	Core Utilities, Inc	IT Design for Admin Building/Lab Refurbish (\$1,275), September IT Support SCADA (\$300), Programmable Logic Controllers & Resolved Coding Issues for PRTP (\$350) & CORE Billing Maintenance (\$450)	8,375.00
9	ESRI, Inc	ArcGIS Software Annual Subscription (10/15/24 - 6/27/25)	1,315.07
10	Fisher Scientific	Electrode Storage Solution	83.51
11	Foster & Foster Actuaries & Consultants	GASB 75 OPEB Actuarial Valuation	6,000.00
12	Freyer & Laureta, Inc.	Prog Pymt#7: 2024 Master Plan Update (\$1356) (Bal Rem on Contract \$378,223) & Prog Pymt#24: Design for Lynwood Pump Station (\$1,735) (Bal Rem on Contract \$26,298)	3,091.00
13	Genterra Consultants	Prog Pymt#28: Dam Spillway Adaptive Service Grid (Balance Remaining on Contract \$45,999)	810.00
14	Grainger	Daily Planner, Magnifier, Plastic Wrap (2) (\$318), Building Wire (2) (\$328), Cylinder (2), Clay, Pipe Brush (4) Film (2) (\$464), Hand Rocket & Socket	1,629.58

Seq	Payable To	For	Amount
15	Kennedy Jenks	Prog Pymt#5: Engineering Services for San Mateo Tank 24" Trans Main	826.75
16	McLellan Co, WK	Paving at District Headquarters & Recycled Water Extension - from Redwood Blvd to 999 Rush Creek (\$214,417) & Misc. Paving Other Sites (\$17,262)	231,678.79
17	MG WEST	Design, Project Management & Delivery for Furniture (Common Area, Admin, and Lab) (Balance Remaining on Contract \$22,253)	46,724.25
18	Mutual of Omaha	November 2024 - Mutual of Omaha Group Life/ADD Insurance Premium & Vision	2,317.61
19	Nute Engineering	Prog Pymt#15: Design & Engineering Services for O.M. Sewer Connection (Balance Remaining on as needed Contract \$46,125)	2,700.00
20	ODP Business Solutions, LLC	Office Supplies	265.56
21	Pace Supply	Spool, Coupling (6) (\$1,595) & Valve (10)	1,993.69
22	Pavement Coating Co.	Refund Security Deposit on Hydrant Meter Less Final Bill	752.51
23	Robins, Debbie	Novato "Washer" Rebate Program	75.00
24	RS Home Improvement, LLC	Refund Excess Advance over Actual Job Cost & Refund Lateral Change	4,843.14
25	Sabah International	Alarm System (STP)	1,808.00
26	SMART	Permit Application Fee for Extension to Permit	300.00
27	Soiland Co., Inc.	Asphalt Recycling (16 yds) & Rock (94 yds)	3,657.31
28	State Water Resources Control	SRF Loan Principal & Interest-RW North Plum Storage (Pymt #13 of 20)	29,413.76
29	Thomas Scientific	Chloride	58.38
30	UL Solutions	Standard Testing of Underdrain Gasket (Lab)	8,660.00
31	Unicorn Group	Novato Fall 2024 Waterline Newsletter - Printing & Mailing Services	4,603.49
32	USA BlueBook	Staff Gauge (2) (\$260), Membrane Cap (3) (\$456) & Hardness Test Solution	757.70

Seq	Payable To	For	Amount
33	Vulcan Materials Company	Power Patch (3 tons)	760.06
34	VWR International LLC	Buffer Standards (2) Sodium Chloride TIP (5 ml) (Lab)	228.96
35	Waste Management	Waste Disposal	16.39
		TOTAL DISBURSEMENTS	<u>\$369,657.78</u>

The foregoing payroll and accounts payable vouchers totaling \$369,657.78 are hereby approved and authorized for payment.

	10/29/24
Auditor-Controller	Date
	10/29/24
General Manager	Date



West Marin Water Factsheet



**NORTH MARIN
WATER DISTRICT**



The history of North Marin Water District's West Marin Water System began in the 1970s when voters approved the creation of improvement districts to acquire and upgrade several failing private water systems. Today, the system primarily serves the communities of Point Reyes Station, Olema, Bear Valley, Inverness Park, and Paradise Ranch Estates, covering about 24 square miles within North Marin Water District's West Marin service area.

Water supply and treatment

North Marin Water District supplies water to the West Marin area using groundwater from two sources:

- Coast Guard Wells (Wells 2 and 4) in Point Reyes Station,
- Gallagher Wells (Wells 1 and 2) located at Gallagher Family Ranch near Lagunitas Creek.

The Coast Guard Wells can be affected by salinity and flooding due to their location near Lagunitas Creek's tidal area, while the Gallagher Wells are not.

Gallagher Well No. 1 was initially built in 1993 as an emergency source but wasn't connected to the water system until 2014 when a new pipeline was installed to connect it to the Point Reyes Treatment Plant. In 2022, Gallagher Well No. 2 was completed and connected to the same system.

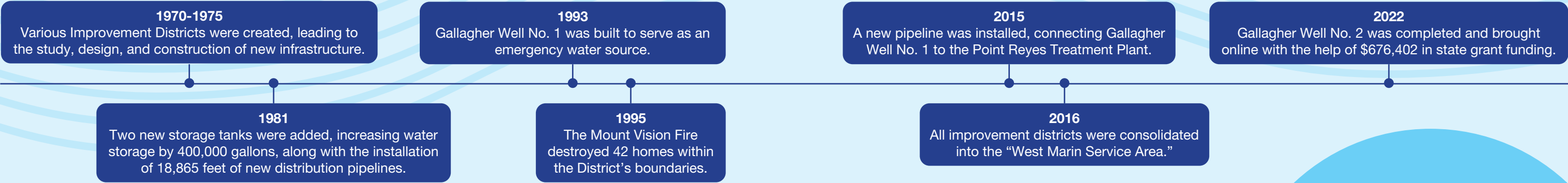
A stream gauging station, managed by the U.S. Geological Survey, is located near the Gallagher Ranch and helps monitor water levels. North Marin Water District and Marin Municipal Water District share the costs of its operation.

All groundwater in the West Marin Water System is treated at the District's Point Reyes Treatment Plant (P RTP). While the water quality is excellent, it requires treatment to remove iron and manganese, which can affect water color and cause staining. The process involves adding an oxidant to make the iron and manganese form particles, which are then filtered out. After filtration, a small amount of chlorine is added to ensure the water stays clean as it moves through the pipeline.

PRE Tank 4C completed in 2022 replaced a wood tank.



Brief history & timeline



Water distribution system

The water is delivered through a network of pipelines ranging in size from 2 to 12 inches in diameter. The system includes a main 8-inch pipeline connecting the treatment plant to storage tanks, and another 8-inch line along Sir Francis Drake Boulevard that delivers water to Inverness Park and Bear Valley. A smaller, 4-inch pipeline serves the Olema area.

Most of the pipes are made of Asbestos Cement (AC) or PVC, although some older 2-inch galvanized pipes still exist in the Paradise Ranch Estates (PRE) zone, left over from before the District took over the system from a private company in the 1970s. In total, the distribution system covers about 27 miles of pipeline.

Each area has water stored in one or more tanks, with a total of 13 storage tanks throughout the West Marin Water System that can store up to 1.035 million gallons. Six booster pump stations move water from lower to higher zones, ensuring that all service areas, including Olema, Bear Valley, Inverness Park, and PRE, get a steady supply. The pumps in the PRE zone work in sequence, with each pumping water to the next higher-level storage tank.

Water demand and usage

Water production has fluctuated in recent years (2021-2023) due to drought conditions and mandatory conservation measures. However, the 10-year average consumption from 2014 to 2024 is around 62 million gallons (MG), with a peak of 72 MG in 2019-2020. Most of the water (90%) is used by residential customers, while the remaining 10% is used by commercial and government customers.

Water demand is highest in July and August, with the maximum daily usage recorded in July 2012, when 399,000 gallons were used in a single day. The Point Reyes Station (PRS) zone accounts for about 65% of the total water usage in the system.







Infrastructure improvements needed

The West Marin Water System is aging, with much of it nearing or surpassing the end of its useful design life. Many parts of the system are at risk due to natural hazards and the impacts of climate change. For example, two wooden storage tanks (PRE-1 and 1) are vulnerable to wildfires and need to be replaced with steel or concrete tanks for improved safety. The Point Reyes Treatment Plant requires significant upgrades and may need to be relocated to ensure it continues to provide reliable and sustainable water treatment.

Additionally, the Coast Guard Wells, though highly productive, face threats from saltwater intrusion and flooding. Gallagher Well No. 1 is no longer functioning as it should and must be replaced.

Several upcoming projects planned by other agencies, such as the replacement of the Highway 1 bridge by Caltrans and the replacement of the Sir Francis Drake levee road culvert by the County of Marin, will require the North Marin Water District to upgrade or replace sections of its distribution pipeline. Delaying necessary improvements can lead to even higher replacement costs as the infrastructure continues to age beyond its useful life.

Capital asset summary

-  **4 water supply wells**
2 "Coast guard wells" and 2 "Gallagher wells"
-  **13 water storage tanks**
Total capacity of 1.1 million gallons
-  **6 pump stations**
-  **175+ fire hydrants**
-  **28 miles of water pipelines**
-  **1 water treatment plant**



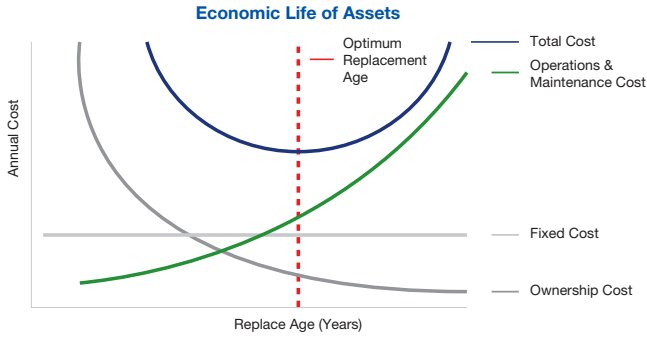
Special joints at water tanks prevent pipe breaks during an earthquake.

Fiscal responsibility and challenges

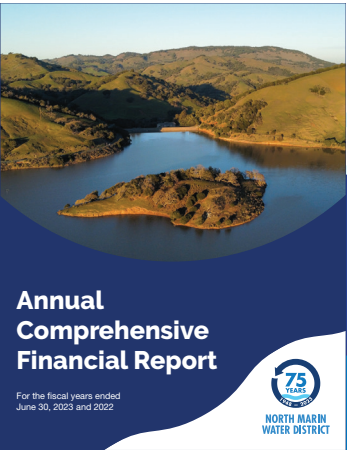
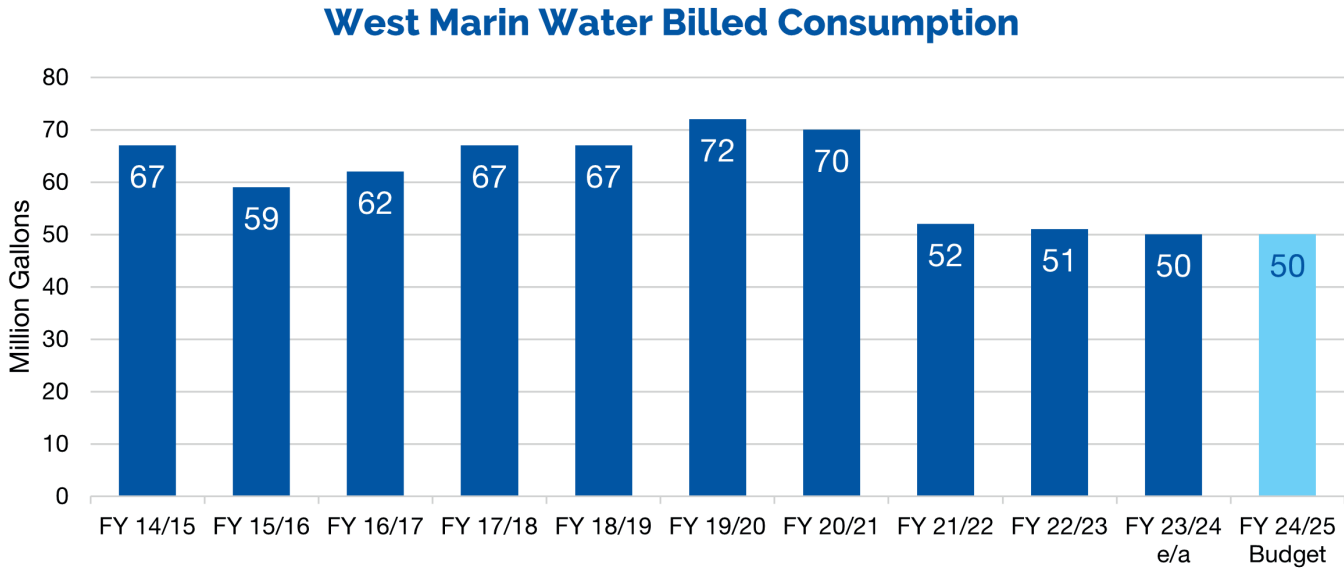
North Marin Water District is dedicated to long-term financial planning, ensuring that reserve levels are properly maintained and employing sound governance, management, and budgeting practices. To safeguard against unexpected costs or emergencies, the District maintains “Minimum Reserves,” which include both an operating reserve and a liability contingency reserve, currently set at \$400,000 per year.

In addition to this, the District aims to build a “Reserve Target” of \$380,000 to help balance fluctuations in capital spending and maintenance costs.

For the fiscal year 2023-24, operating revenue for the West Marin System was approximately \$1 million, a slight increase from just over \$900,000 the previous year. However, the long-term capital improvement and replacement needs of the system are estimated to cost in excess of \$10 million. Currently, the District allocates \$390,000 annually toward these projects, aligning with its financial goals and policies.



The West Marin System has traditionally relied on external funding sources, such as bonds, grants, loans, and interfund loans. These interfund loans are provided by the District’s Novato Water System enterprise. The District’s policy is to protect ratepayers by using conservative financing methods to secure the best possible credit rating—targeting a rating of at least AA—to minimize borrowing costs. To support this, the District aims to maintain an average debt service coverage ratio of 1.5.

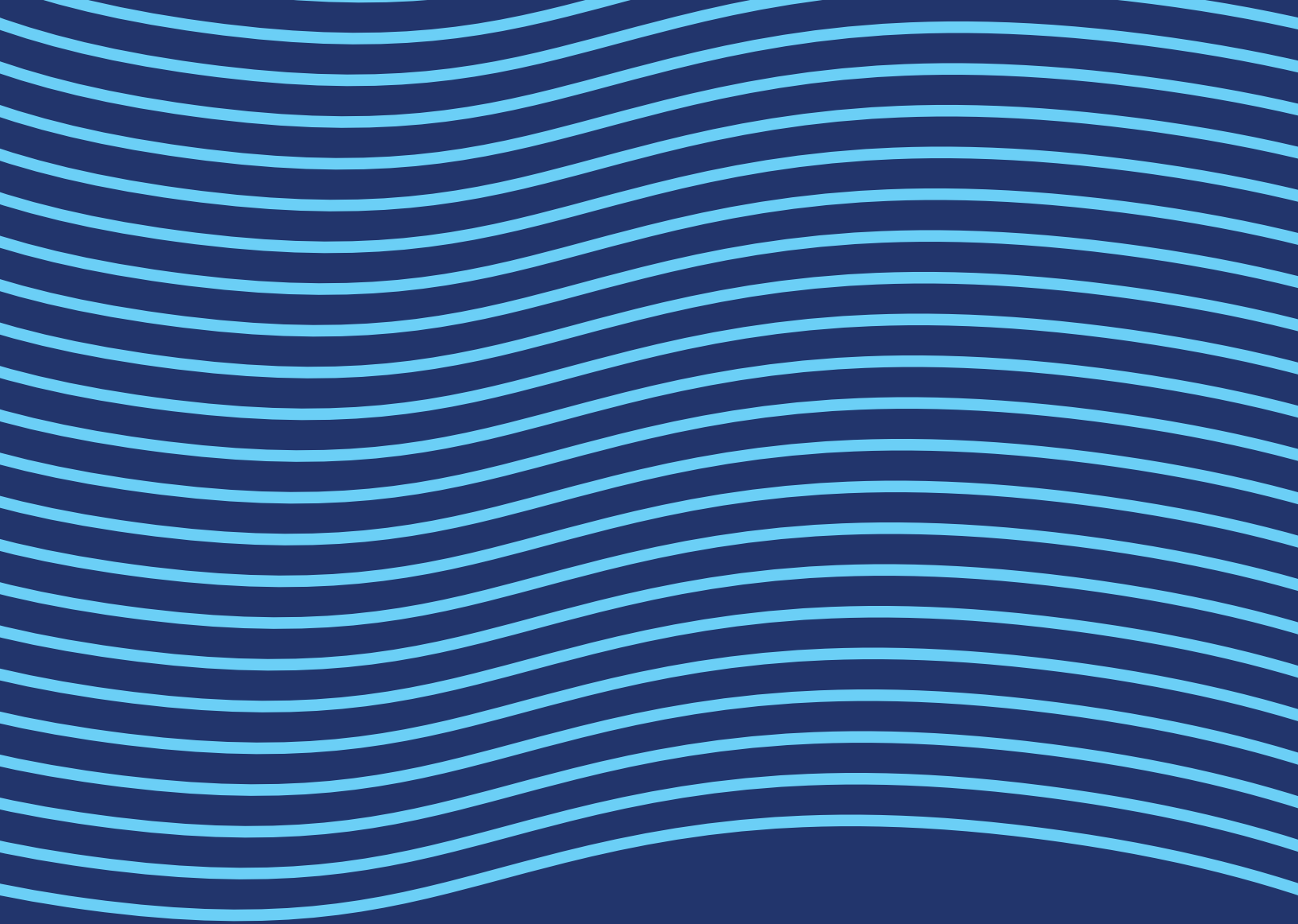


More information

For more detailed financial information, please read our annual audited financial report at nmwd.com/about/documents



NORTH MARIN
WATER DISTRICT



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Email: info@nmwd.com

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FINAL TEXT OF “MAKING CONSERVATION A CALIFORNIA WAY OF LIFE” REGULATION

California Code of Regulations

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. Urban Water Use Efficiency Standards, Objectives, and Performance Measures

Effective January 1, 2025

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Adopt new section 965:

§ 965. Definitions

Definitions used in this Article:

- (a) "Animal type-classes" (T) means major categories of animal types based on similar water use and animal weight.
- (b) "Annual precipitation" means total annual precipitation, in inches per year. Annual precipitation will be updated annually by the Department and derived from Parameter-elevation Regressions on Independent Slopes Model data.
- (c) "Augmented Surface Water Reservoir" or "Augmented Reservoir" has the same meaning as "reservoir water augmentation" in section 13561 of the Water Code.
- (d) "Augmented Groundwater Basin" or "Augmented Basin" has the same meaning as "indirect potable reuse for groundwater recharge" in section 13561 of the Water Code.
- (e) "Basin" means either a basin or subbasin as defined and delineated by bulletin 118, or as defined and delineated through an adjudication process.
- (f) "Board" means the State Water Resources Control Board.
- (g) "Budget" means the calculated volume of water for a discrete category of water use associated with efficiency standards, variances, or temporary provisions.
- (h) "Climate zones" means the California Energy Code climate zones as defined by zip code and listed in California Energy Commission Reference Joint Appendix JA2 (Title 24, Part 6, Section 100.1).
- (i) "Climate-ready landscapes" are designed and maintained to reduce greenhouse gas emissions and weather more extreme conditions, save water, reduce waste, nurture soil, sequester carbon, conserve energy, reduce urban heat, protect air and water quality, and create habitat for native plants and pollinators.
- (j) "Collaboration and Coordination best management practices" means formalized operational and institutional arrangements, such as cooperative agreements among parties to streamline requirements, data collection, or implementation of best management practices by coordinating with necessary entities.
- (k) "Commercial, industrial, and institutional water user" means a CII water user meeting any of the definitions in Water Code section 10608.12 (f), (p) and (q).
- (l) "Crop-specific landscape area" means residential agricultural landscapes disaggregated by each crop or crop type grown within the supplier's service area.
- (m) "Customer" has the same meaning as in section 10611.3 of the Water Code.
- (n) "Dedicated Irrigated Meter" (DIM) means a water meter that is operated and maintained by the supplier that exclusively measures the water a customer uses for irrigation.
- (o) "Department" means the Department of Water Resources.
- (p) "Direct Potable Reuse" (DPR) has the same meaning as in section 13561 of the Water Code. DPR does not require an environmental buffer.
- (q) "Direct potable reuse project" or "DPR project" has the same meaning as in California Code of Regulations, title 22, section 64669.05.
- (r) "Disclosable Building" has the same meaning as in section 1681 in California Code of Regulations, title 20.
- (s) "Effective precipitation" (P_{eff}) means 25 percent of total annual precipitation, or a lower value generated by the California Simulation of Evapotranspiration of Applied Water model if provided by the Department, in inches per year.
- (t) "ENERGY STAR Portfolio Manager" means the tool developed and maintained by the United States Environmental Protection Agency to track and assess building performance.
- (u) "ENERGY STAR Portfolio Manager broad categories" means a superset of property types based on sector.

- (v) "ENERGY STAR Portfolio Manager property types" means a subgroup of ENERGY STAR Portfolio Manager broad categories.
- (w) "Equivalent Technologies" are technologies that are functionally equivalent to Dedicated Irrigation Meters in terms of accuracy and supplier access to the data.
- (x) "Existing CII water users" means CII water users served by the supplier on or before the effective date of this article.
- (y) "Finished water" has the same meaning as in California Code of Regulations, title 22, section 64400.41.
- (z) "High levels of Total Dissolved Solids" (TDS) means concentrations above 900 mg/L.
- (aa) "Indirect Potable Reuse" (IPR) includes "Indirect potable reuse for groundwater recharge" and "reservoir water augmentation" as defined in section 13561 of the Water Code. IPR requires an environmental buffer, including a river, lake, reservoir, or a groundwater aquifer that is used as a source of drinking water.
- (bb) "Irrigable Irrigated Area" is residential area of healthy vegetation where the vegetation appears to be in growth, not senesced, and is foliated. The area is presumed to be maintained and managed through active irrigation, comprising an irrigated hydro-zone. Non-vegetative features may be included.
- (cc) "Irrigable Not Irrigated Area" is residential area that is not currently being irrigated, but was irrigated in the past, or may be managed with irrigation in the future.
- (dd) "In-Lieu Technologies" are technologies that support landscape water use efficiency improvements by means other than the direct measure of water use. They include but are not limited to the technologies identified in section 973.
- (ee) "LA_{crop}" means the landscape area for a crop grown on residential landscapes included in the Department's agricultural land mask and associated with an account the supplier categorizes as residential, in square feet.
- (ff) "Landscape efficiency factor" (LEF) means a factor applied at the supplier-level that adjusts net reference evapotranspiration for plant factors and irrigation efficiency, two major influences upon the amount of water that is applied to the landscape.
- (gg) "Large landscapes" are Commercial, Industrial, and Institutional landscapes that are ½ acre in size or larger with Mixed-Use meters.
- (hh) "Livestock" has the same meaning as in section 3080 of the Civil Code.
- (ii) "Low-impact development" means new development or redevelopment projects that employ natural and constructed features that reduce the rate of stormwater runoff, filter out pollutants, facilitate stormwater storage onsite, infiltrate stormwater into the ground to replenish groundwater supplies, or improve the quality of receiving groundwater and surface water.
- (jj) "Mixed-Use Meter" (MUM) means a water meter that is operated and maintained by the supplier and that measures the volume of water a customer uses indoors and outdoors.
- (kk) "Net reference evapotranspiration" or "Net ET₀" is the difference between reference evapotranspiration and effective precipitation, in inches per year.
- (ll) "Net ET_{0 crop}" means the net reference evapotranspiration for a supplier's service area growing season, in inches per year.
- (mm) "Newly constructed residential landscapes" (RLA_{new}) means landscapes that were added to a supplier's service area in accordance with section 968 (e) after the time period captured by the Landscape Area Measurements Project update released by the Department on December 6, 2023, or any subsequent update to the supplier's residential landscape area pursuant to section 968 (b)(3).
- (nn) "Newly constructed CII landscapes with DIMs" (DIM LA_{new}) means CII landscapes with DIMs that are added to a supplier's service area in accordance with section 969 (d)(2) after the most recent analysis a supplier conducts in accordance with section 969 (b)(2).

- (oo) "Owner's Agent" means a person with authorization from a building owner to act on behalf of the building owner.
- (pp) "Plant factor" has the same meaning as in section 491.
- (qq) "Potable deliveries to residential properties and CII landscapes with DIMs" (D_{RLI}) means the total potable water volume delivered to both residential and landscape irrigation connections, as reported to the Board pursuant to Health and Safety Code section 116530.
- (rr) "Potable Reuse Water" includes water produced through both direct potable reuse and indirect potable reuse systems.
- (ss) "Potable Reuse Volume" (V_{PR}) is defined as the individual supplier's volume of potable reuse water.
- (tt) "Process water" has the same meaning as in section 10608.12 of the Water Code.
- (uu) "Recycled water" means water produced by a wastewater treatment plant or water recycling treatment plant permitted to produce recycled water pursuant to California Code of Regulations, title 22.
- (vv) "Reference evapotranspiration" or " ET_0 " has the same meaning as in section 491 and is expressed in inches per year. Reference evapotranspiration will be updated annually by the Department and derived from the California Simulation of Evapotranspiration of Applied Water model using Spatial California Irrigation Management Information System data.
- (ww) "Residential agricultural landscapes" means the residential agricultural area, in square feet, included in the Landscape Area Measurements Project update (released by the Department December 6, 2023), or as later updated by the Department. It is limited to land on which agricultural use is occurring and that is associated with a service connection the supplier categorizes as residential.
- (xx) "Agricultural use" means "agricultural use" as defined in Government Code section 51201 (b), but does not include cleaning, processing, or other similar post-harvest activities.
- (yy) "Residential landscape area" (RLA) means residential Irrigable Irrigated area plus approved Irrigable Not Irrigated area, in square feet.
- (zz) "Residential service area population" (P) means the service area population reported to the Board as "residential" pursuant to Health and Safety Code section 116530 and California Code of Regulations, title 22, section 64412.
- (aaa) "Residential special landscape area" (RSLA) means residential pools, spas, and similar water features, residential areas dedicated solely to edible plants, and residential areas irrigated with recycled water, in square feet.
- (bbb) "Service Connection" (C) has the same meaning as in Health and Safety Code section 116275.
- (ccc) "Temporary provision" means an additional volume of water that an urban retail water supplier may request to add to its urban water use objective for a limited time for a specified beneficial use that will require less water over time.
- (ddd) "Turf" has the same meaning as in section 491.
- (eee) "Total potable water production" (T_{PW}) means all potable water that enters into a supplier's distribution system, excluding water placed into storage and not withdrawn for use during the reporting period and excluding water exported outside the supplier's service area during the reporting period, as reported to the Board pursuant to Health and Safety Code section 116530. Total potable water production includes all non-revenue water, which has the same meaning as in section 638.1 and is equal to the sum of the supplier's unbilled authorized consumption and apparent and real losses.
- (fff) "Urban retail water supplier" or "supplier," has the same meaning as in section 980.

(ggg) “Urban water use objective” (WUO) means an 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, as described in Water Code section 10609.20 and as calculated pursuant to section 966 (d).

(hhh) “Variance” means an additional volume of water that an urban retail water supplier may request to add to its urban water use objective for a unique use that has a material effect on a supplier’s urban water use objective.

Authority: Sections 1058, 10609.2, and 10609.10, Water Code.

References: Article X, Section 2, California Constitution; Sections 3080, 4080, 4100, and 4100, Civil Code; Section 51201, Government Code; Section 116275 and 116530, Health and Safety Code; Sections 102, 104, 105, 350, 1122, 1123, 1124, 1846, 1846.5, 10608.12, 10609.2, 10609.10, 10609.20, 10611.3, and 13561, Water Code.

Adopt new section 966:

§ 966. Urban Water Use Objectives

- (a) No later than January 1, 2025, and by January 1 every year thereafter, each urban retail water supplier shall calculate its urban water use objective and, beginning January 1, 2027, annually demonstrate compliance with its objective.
- (b) The calculation shall be based on the supplier’s water use conditions for the previous state fiscal year.
- (c) The objective shall be composed of the sum of the following budgets:
 - (1) A budget for efficient indoor residential water use (R_{indoor}) as described in section 967.
 - (2) A budget for efficient outdoor residential water use ($R_{outdoor}$) as described in section 968.
 - (3) A budget for efficient water use on commercial, industrial, and institutional landscapes with dedicated irrigation meters or equivalent technology (CII_{DIM}) as described in section 969.
 - (4) A budget for efficient real water losses (L) as described in section 970.
 - (5) Budgets for any approved variances (V) and temporary provisions (Pr) as described in sections 967, 968, and 969.
 - (6) A bonus incentive for potable reuse (B_{PR}) as described in section 971.
- (d) The formula for calculating a supplier’s urban water use objective (WUO), in gallons, is expressed mathematically as follows:

$$WUO = R_{indoor} + R_{outdoor} + CII_{DIM} + L + V + Pr + B_{PR}$$

- (e) If any system owned and operated by a supplier is lacking the data needed to calculate the budgets described in subdivision (c)(1) through (4), that system shall be excluded from the overall objective calculation until the requisite data are obtained. The requisite data must be obtained no later than July 1, 2028, for use in the 2030 reporting year.
- (f) For systems that do not meet the criteria to be considered an urban retail water supplier until after the effective date of this section, and for a system that hydraulically consolidates with a supplier, this section applies beginning five (5) years after the system meets the criteria to be considered a supplier or consolidates with a supplier.
- (g) Compliance with this section shall be assessed on the overall objective, not the individual budgets identified in subdivision (c), except for water loss, which shall also be assessed individually pursuant to section 981.

- (h) If a supplier's calculated objective-based total use is larger than its target-based total use, the supplier's urban water use objective shall be its Water Code section 10608.20 individual target less excluded demands as described in paragraph (3). If the supplier's section 10608.20 target is expressed in gallons per capita daily, the supplier shall multiply the target by its residential service area population for the reporting year and the number of days in the year.
- (1) For purposes of this subdivision, objective-based total water use, in gallons, is the sum of excluded demands and the urban water use objective calculated pursuant to subdivision (c).
 - (2) For purposes of this subdivision, target-based total water use, in gallons, is a supplier's individual Water Code section 10608.20 target plus demands not included in the target. Demands not included in the section 10608.20 target may include process water and recycled water.
 - (3) Excluded demands are those values provided by the supplier to the Board pursuant to Health and Safety Code section 116530, for the following delivery categories: other; commercial and institutional; and industrial.
 - (4) Until June 30, 2040, this subdivision does not apply to any supplier that is achieving its Water Code section 10608.20 target on a regional basis but has not achieved its individual target.
- (i) Notwithstanding subdivision (a), a supplier shall be considered in compliance with its objective provided all of the following are met:
- (1) The median household income of the supplier's service area is equal to or less than the median household income of California. The median household income of the supplier's service area shall be the average for the three years preceding the year the supplier initially asserts compliance with its objective pursuant to this subdivision;
 - (2) The supplier's urban water use objective calculated by the supplier pursuant to subdivision (c), using the standards that apply July 1, 2040, would result in an objective that is 80 percent or less of the supplier's average annual water use for the reporting categories identified in section 975 (c)(1)(D) for the state fiscal years ending in 2024, 2025, and 2026;
 - (3) The supplier develops, posts to its public-facing website, and implements a plan that is designed with the goal of achieving, by June 30, 2041, or a different date approved by Board staff, the supplier's urban water use objective. The plan must additionally include efforts to keep trees healthy; and
 - (4) The annual reports the supplier has submitted pursuant to section 975 show that the supplier is reducing its per capita water use by an average of no less than 1.0 percent per year, as shown by data from the reporting year and the immediately preceding two years, from its average per capita annual water use for the state fiscal years ending in 2024, 2025, and 2026.
- (j) Notwithstanding subdivision (a), a supplier shall be considered in compliance with its objective provided all of the following are met:
- (1) The supplier's urban water use objective, calculated pursuant to subdivision (c), using the standards that apply July 1, 2040, would result in an objective that is 70 percent or less of the supplier's average annual water use for the reporting categories identified in section 975 (c)(1)(D) for the state fiscal years ending in 2024, 2025, and 2026;
 - (2) The supplier develops, posts to its public-facing website, and implements a plan that is designed with the goal of achieving, by June 30, 2041, or a different date approved by Board staff, the supplier's urban water use objective. The plan must demonstrate that the supplier has carefully analyzed the data used to calculate its urban water use objective, including, but not limited to, the data associated with variances and special landscape areas. The plan must additionally include efforts to:

- (A) Increase support for disadvantaged communities, as defined in title 22, section 64300 of the California Code of Regulations, and low-income households;
- (B) Leverage regional and local partnerships to support the installation and maintenance of climate-ready landscapes; and
- (C) Keep trees healthy;
- (3) The supplier verifies adherence to the American Water Works Association G480-20 Water Conservation and Efficiency Program Operation and Management Standard (published February 1, 2021), which is hereby incorporated by reference; and
- (4) The annual reports the supplier has submitted pursuant to section 975 show that the supplier is reducing its per capita urban water use by an average of no less than 2.0 percent per year, as shown by data from the reporting year and the immediately preceding two years, from its average per capita annual water use for the state fiscal years ending in 2024, 2025, and 2026.
- (k) For the purposes of subdivisions (i) and (j):
 - (1) A supplier shall calculate average annual per capita water use by dividing the average annual demand for the reporting categories identified in section 975 (c)(1)(D) for the state fiscal years ending in 2024, 2025, and 2026, by the average annual residential service area population for the state fiscal years ending in 2024, 2025, and 2026, and by the days of the year; and
 - (2) A supplier shall calculate annual per capita water use for the reporting year and the immediately preceding two years by, for each year, dividing annual demand for the reporting categories identified in section 975 (c)(1)(D), by annual residential service area population, and by the days of the year.

Authority: Sections 1058, 10609.2, and 10609.20, Water Code.

References: Article X, Section 2, California Constitution; Section 3080, Civil Code; Section 51201, Government Code; Section 116530, Health and Safety Code; Sections 102, 104, 105, 350, 1122, 1123, 1124, 1846, 1846.5, 10608.12, 10608.20, 10609.2, 10609.10, 10609.12, and 10609.27, Water Code.

Adopt new section 967:

§ 967. Indoor Residential Water Use Standard

- (a)
 - (1) Each year, a supplier shall calculate its budget for residential indoor water use (R_{indoor}), in gallons, by multiplying the applicable standard (S_{indoor}) described in Water Code section 10609.4, subdivision (a) by the supplier's residential service area population (P), and by the number of days in the year. This formula is expressed mathematically as follows:

$$R_{\text{indoor}} = S_{\text{indoor}} \times P \times \text{days in year}$$
 - (2) For any reporting year that includes more than one standard, each applicable standard shall be multiplied by the number of days for which the standard applies pursuant to Water Code section 10609.4 that occur in the reporting period.
- (b)
 - (1) An urban retail water supplier may, in calculating its urban water use objective, include budgets for variances identified in paragraph (2) for residential indoor use, if:
 - (A) The supplier submits supporting information meeting the criteria described in subdivision (e); and

- (B) The associated water use, for any individual variance, represents 5 percent or more of the budget associated with the standard described in section 966 (c)(1).
- (2) Variances may be requested for water use associated with any of the following:
 - (A) Significant use of evaporative coolers
 - (B) Significant fluctuations in seasonal population.
- (c) Variances available pursuant to subdivision (b) shall be calculated as follows:
 - (1) A variance for water use associated with evaporative coolers (V_{EC}) represents the volume of water evaporative coolers used on operating days. Operating days (N_{DAYS}) are days when the average temperature in the supplier's service area was greater than 78 degrees Fahrenheit for at least one hour. V_{EC} shall be calculated by multiplying the number of evaporative coolers in the service area (N_{EC}) by the number of operating days (N_{DAYS}), the average daily evaporative cooler operating hours (H_O), and the average daily evaporative rate (R_{EC}). This formula is expressed mathematically follows:

$$V_{EC} = N_{EC} \times N_{DAYS} \times H_O \times R_{EC}$$

- (A) The number of evaporative coolers in the service area (N_{EC}) may be estimated based on a representative sample of customers meeting the criteria specified in paragraph (D).
- (B) The evaporative cooler operating hours (H_O) may be a daily average based on a sample meeting the criteria specified in paragraph (D). A supplier shall use the service area average operating hours or the daily maximum operating hours, whichever is lower.
 - (i) The service area wide average operating hours shall equal the average of all operating hours based on the sample.
 - (ii) The service area daily maximum operating hours shall equal the number of hours in a day when the temperature was above 78 degrees Fahrenheit within the supplier's service area.
- (C) The evaporative cooler evaporation rate (R_{EC}) may be a daily average based on a sample meeting the criteria specified in paragraph (D). R_{EC} , in gallons per hour, shall be calculated by multiplying the average air exchange rate of the evaporative cooler units within the supplier's service areas (CFM), in cubic feet per minute, by the average daily difference in hourly wet and dry bulb temperatures (ΔT_{Bulb}), in degrees Fahrenheit, and by a representative efficiency rate of 80 percent. To convert the heat absorbed, in British Thermal Units, to the volume of water evaporated by the coolers, in gallons, that product shall be divided by 8700. This formula is expressed mathematically as follows:

$$R_{EC} = \frac{CFM \times \Delta T_{Bulb} \times 0.8}{8700}$$

The average air exchange rate of the evaporative cooler units within the supplier's service areas (CFM) and the average daily difference in hourly wet and dry bulb temperatures (ΔT_{Bulb}) shall be calculated according to the Department's Methods for Estimating Residential Cooler Water Consumption and Prevalence using Account-Level Water and Energy Consumption Data (published April 15, 2022), which is hereby incorporated by reference, or an alternative method that the supplier has demonstrated to the Department, in coordination with the Board, to be equivalent, or superior, in quality and accuracy.

- (D) For the purposes of this section, the sample must represent at least 10,000 residential connections, or ten percent of residential connections, whichever is smaller.
- (2) A variance for water use associated with seasonal populations (V_{SP}), in gallons, shall be calculated by multiplying the number of dwelling units associated with seasonal occupancy (N_{DU}) by the occupancy rate (R_O) and by the residential indoor use standard for the given time period (S_{indoor}). This formula is expressed mathematically as follows:

$$V_{SP} = N_{DU} \times R_O \times S_{indoor}$$

- (A) The number of dwelling units associated with seasonal occupancy (N_{DU}) shall be calculated according to the Department's Methods for Estimating Seasonal Populations with Water and Energy Data (published by June 22, 2022), which is hereby incorporated by reference, or an alternative method that the supplier has demonstrated to the Department, in coordination with the Board, to be equivalent, or superior, in quality and accuracy.
- (B) The occupancy rate (R_O) shall be calculated by dividing the average number of seasonally occupied rooms (R_S) by the average number of rooms occupied by permanent residents (R_P) and multiplying the quotient by the average number of people per permanently occupied household (H_P) and the average number of days households are seasonally occupied (S_{DAYS}). This formula is expressed mathematically as follows:

$$R_O = \frac{R_S}{R_P} \times H_P \times S_{DAYS}$$

The average number of days households are seasonally occupied (S_{DAYS}) shall be calculated according to the Department's Methods for Estimating Seasonal Populations with Water and Energy Data (published June 22, 2022), which is hereby incorporated by reference, or an alternative method that the supplier has demonstrated to the Department, in coordination with the Board, to be equivalent, or superior, in quality and accuracy.

- (C) Notwithstanding subdivision (b)(1)(B), a supplier is eligible for the variance for water use associated with seasonal populations if the supplier uses detailed daily or hourly Advanced Metering Infrastructure (AMI) data to effectively identify dwelling units with seasonal population and the associated water use represents 1 percent or more of the budget associated with the standard described in section 966 (c)(1). If the supplier uses detailed daily or hourly AMI data, then the occupancy rate (R_O) shall be calculated by multiplying the water used by seasonally occupied homes (W_{SO}) by the supplier's residential service area population (P) and dividing the product by the water used for permanently occupied homes (W_{PO}). The quotient shall be multiplied by the average number of days households are seasonally occupied (S_{DAYS}). This formula is expressed mathematically as follows:

$$R_O = \left(\frac{W_{SO} \times P}{W_{PO}} \right) \times S_{DAYS}$$

The average number of days households are seasonally occupied (S_{DAYS}) shall be calculated according to the Department's Methods for Estimating Seasonal

Populations with Water and Energy Data (published June 22, 2022), or an alternative method that the supplier has demonstrated to the Department, in coordination with the Board, to be equivalent, or superior, in quality and accuracy.

- (d) An urban retail water supplier may request a temporary provision to respond to negative impacts to wastewater collection, treatment, and reuse systems, if the supplier shows to the satisfaction of the Board that meeting the objective pursuant to section 966 would require adhering to the applicable residential indoor standard identified in Water Code section 10609.4 and that meeting the budget for efficient residential indoor use is causing challenges within wastewater collection, treatment, and reuse systems.
- (e) In order to receive approval for a variance or a temporary provision, an urban retail water supplier must submit to the Board, in a machine-readable format for review and approval by the Executive Director, or the Executive Director's designee, a request that includes information quantifying and substantiating each request; information demonstrating that the water applicable to the request is water delivered by the supplier; information verifying that the approval of the request would not jeopardize the ability of a permittee within the supplier's service area to comply with existing permit requirements; and information describing and supporting the methodology the supplier will use to estimate the parameters described in subdivision (c), including the number of households sampled and the total number of residential connections, as reported to the Board pursuant to Health and Safety Code section 116530.
 - (1) Approved variances or temporary provisions submitted between July 1 and October 1 may be included in the associated budget for the prior state fiscal year.
 - (2) Approved variances or temporary provisions submitted between October 2 and June 30 may be included in the associated budget for the current state fiscal year.
 - (3) Approved variances and temporary provisions may be included in the associated budget for up to five years. Variance and temporary provision approval constitutes approval of both methodology and data. Unless otherwise specified in section 975, a supplier may use the same data for each year or update the data annually in accordance with the approved variance or temporary provision methodology.

Authority: Sections 1058, 10609.2, and 10609.20, Water Code.

References: Article X, Section 2, California Constitution; Section 51201, Government Code; Sections 102, 104, 105, 350, 1122, 1123, 1124, 1846, 1846.5, 10608.12, 10609.2, 10609.4, and 10609.10, Water Code.

Adopt new section 968:

§ 968. Outdoor Residential Water Use Standard

- (a)
- (1) Through June 30, 2035, the standard for efficient residential outdoor use (S_{outdoor}) shall be a landscape efficiency factor of 0.80.
 - (2) Beginning July 1, 2035, and through June 30, 2040, the standard for efficient residential outdoor use shall be a landscape efficiency factor of 0.63.
 - (3) Beginning July 1, 2040, the standard for efficient residential outdoor use shall be a landscape efficiency factor of 0.55.
 - (4) The standard for efficient residential outdoor use for residential special landscape areas shall be a landscape efficiency factor of 1.0.
 - (5) The standard for newly constructed residential landscapes (S_{new}) shall be a landscape efficiency factor of 0.55.
- (b)
- (1) Each year, an urban retail water supplier shall calculate its budget for efficient residential outdoor water use (R_{outdoor}), in gallons, by multiplying the applicable standard (S_{outdoor}) described in subdivision (a) by the square footage of the most current available residential landscape area (RLA) as described in subdivision (b)(2) or (b)(3), net reference evapotranspiration (Net ET_0), and a unit conversion factor of 0.62. This formula is expressed mathematically as follows:

$$R_{\text{outdoor}} = S_{\text{outdoor}} \times \text{RLA} \times \text{Net } ET_0 \times 0.62$$

- (2) Until updated residential landscape area data are available pursuant to paragraph (3), residential landscape area shall be, for each supplier:
 - (A)
 - (i) The supplier's unique square footage of Irrigable Irrigated area included in the Landscape Area Measurements Project update released by the Department on December 6, 2023. After the effective date of this section, a supplier may adjust this value by adding the residential parkway area provided by the Department that the supplier has confirmed is associated with a residential service connection; or
 - (ii) For a supplier that has not received residential landscape area data from the Department by the effective date of this section, the supplier's unique square footage of Irrigable Irrigated area shall be what the Department first provides after this section takes effect.
 - (B) If the supplier's actual urban water use for the reporting year, calculated in accordance with Water Code section 10609.22, is greater than the urban water use objective calculated pursuant to section 966 without inclusion of Irrigable Not Irrigated area, a supplier may include:
 - (i) Twenty percent of the supplier's unique square footage of Irrigable Not Irrigated area included in the Landscape Area Measurements Project update released by the Department on December 6, 2023; or
 - (ii) For a supplier that has not received residential landscape area data from the Department by the effective date of this section, twenty percent of the supplier's unique square footage of Irrigable Not Irrigated area first provided by the Department after this section takes effect.
- (3) Residential landscape area shall be, for each supplier, the most current updated Irrigable Irrigated area:

- (A) Provided by the Department;
 - (B) Updated by a supplier pursuant to paragraph (4); or
 - (C) Provided by an entity other than the Department or a supplier according to the following criteria:
 - (i) The residential landscape area is generated as part of a transparent statewide analysis covering the service areas of all urban retail water suppliers;
 - (ii) Developed with methodologies and procedures that have been demonstrated to the Department to be equivalent, or superior, in quality and accuracy, to those used by the Department to develop residential landscape area; and
 - (iii) Results in landscape area data that have been demonstrated to the Department to be equivalent, or superior, in quality and accuracy to the data included in the Landscape Area Measurements Project update released by the Department on December 6, 2023.
 - (4) A supplier may, for each reporting year, use an alternative data source for reference evapotranspiration, effective precipitation, or its Irrigable Irrigated area, if it demonstrates to the Department, in coordination with the Board, that the data are equivalent, or superior, in quality and accuracy to the data included in the Landscape Area Measurements Project update released by the Department on December 6, 2023. Alternative data pursuant to this paragraph shall be reported pursuant to section 975.
 - (5) Notwithstanding subdivisions (b)(2) and (b)(3), a supplier may subtract landscape area that has been categorized as residential but that the supplier has identified as Commercial, Industrial, or Institutional (CII). If the area consists of CII landscapes with dedicated irrigation meters, it shall be included in a supplier's objective pursuant to section 969.
- (c)
- (1) Notwithstanding subdivision (b)(1), an urban retail water supplier may calculate its residential outdoor water use budget (R_{outdoor}), in gallons, by subtracting the square footage of residential special landscape areas (RSLA) from the square footage of the most currently available residential landscape area (RLA) as defined in subdivision (b)(2) and multiplying the result by the applicable standard (S_{outdoor}) described in subdivision (a); then, by adding that value to the product of the standard for residential special landscape areas (S_{RSLA}) as described in subdivision (a)(4) and the square footage of residential special landscape areas (RSLA); and lastly, by multiplying that sum by net reference evapotranspiration (Net ET_0) and a unit conversion factor of 0.62. This formula is expressed mathematically as follows:

$$R_{\text{outdoor}} = (S_{\text{outdoor}} \times (\text{RLA} - \text{RSLA}) + S_{\text{RSLA}} \times \text{RSLA}) \times \text{Net ET}_0 \times 0.62$$
 - (2) In order to calculate a residential outdoor budget pursuant to this subdivision, a supplier shall demonstrate to the Department, in coordination with the Board, that the landscape areas meet the definition specified in section 965 (aaa). Residential special landscape area data shall be reported pursuant to section 975, and, unless updated by a supplier pursuant to this paragraph, data approved by the Department may be included for up to five years.

- (3) For the purposes of this subdivision, the square footage of existing pools, spas, and similar water features shall be either (A) the value included in the Landscape Area Measurements Project update released by the Department on December 6, 2023, or any updates thereafter, or (B) alternative data, if the supplier demonstrates to the Department, in coordination with the Board, that the data are equivalent, or superior, in quality and accuracy to the data provided by the Department.
- (d) If not included as a variance pursuant to subdivision (g)(3), an urban retail water supplier may add to its residential outdoor budget calculated pursuant to subdivisions (b)(1) or (c)(1) the volume of water associated with residential agricultural landscapes. The budget for residential outdoor water use associated with residential agricultural landscapes (R_{Ag}), in gallons, is calculated by multiplying a unit conversion factor of 0.62 by the standard for residential special landscape areas (S_{RSLA}) described in subdivision (a)(4) and by the values provided by the Department for the following parameters: the square footage of residential agricultural landscapes (LA_{Ag}) and the net reference evapotranspiration for the aggregated growing seasons associated with the crops grown on residential agricultural landscapes ($Net\ ET_{0\ Ag}$). This formula is expressed mathematically as follows:

$$R_{Ag} = S_{RSLA} \times LA_{Ag} \times Net\ ET_{0\ Ag} \times 0.62$$

- (e)
- (1) An urban retail water supplier may add to its residential outdoor budget calculated pursuant to subdivision (b)(1) or (c)(1) the volume of water associated with newly constructed residential landscapes. The budget for residential outdoor water use associated with newly constructed residential landscapes ($R_{outdoor, new}$), in gallons, is calculated by multiplying the standard (S_{new}) described in subdivision (a)(5) by the square footage of the supplier's newly constructed residential landscape area (RLA_{new}) as described in subdivision (e)(2), net reference evapotranspiration ($Net\ ET_0$), and a unit conversion factor of 0.62. This formula is expressed mathematically as follows:

$$R_{outdoor, new} = S_{new} \times RLA_{new} \times Net\ ET_0 \times 0.62$$

- (2) The existence of newly constructed residential landscape area shall be demonstrated by using:
- (A) Data from annual reporting required by section 495 (b)(6), provided the report has disaggregated newly constructed residential landscapes from the total landscape area reported;
 - (B) On the ground measurements of newly constructed residential landscapes; or
 - (C) Measurements of newly constructed residential landscapes collected using accurate remote sensing methods.

- (f)
- (1) An urban retail water supplier may annually, in calculating its urban water use objective, include budgets for variances for residential outdoor water use as follows:
- (A) the supplier submits supporting information meeting the criteria described in subdivision (j).
 - (B) The associated water use must, for any individual variance identified in paragraph (2)(A) through (C), represent 5 percent or more of the budget associated with the standard described in section 966 (c)(2).

- (C) The associated water use for the variances identified in paragraph (2)(D) and in section 969 (e)(2)(A), or the associated water use for the variance identified in paragraph (2)(E) and in section 969 (e)(2)(B), must represent 5 percent or more of the sum of the budgets associated with the standards described in section 966 (c)(2) and (3).
- (2) Variances may be requested for water use associated with any of the following:
- (A) Populations of horses and other livestock
 - (B) Controlling dust on horse corrals or other animal exercise arenas
 - (C) Irrigating agricultural landscapes that are within residential areas but have not been classified as irrigable irrigated by the Department
 - (D) Responding to emergency events, not including drought
 - (E) Landscapes irrigated with recycled water containing high levels of TDS
 - (F) Supplementing ponds and lakes to sustain wildlife as required by existing regulations or local ordinances
 - (G) Irrigating existing residential trees.
- (g) Variances available pursuant to subdivision (f) shall be calculated as follows:
- (1) A variance for water use associated with horses and other livestock ($V_{livestock}$), shall be calculated as the sum of water allocations for each animal type-class (T). The water allocation for an animal type-class shall be calculated by multiplying the daily water use of the animal type-class (V_T), as specified in paragraphs (A) through (D), by the number of animals (N_T), by the average number of days per year where water is provided to the animal type (D_T). This formula is expressed mathematically as follows:

$$V_{livestock} = \sum_T (V_T \times N_T \times D_T)$$

- (A) For sheep, llama, donkey, swine, and other medium-sized livestock between 200 and 500 pounds, the daily water use shall be the lesser of 8 gallons of water per day per animal or the amount specified in section 697.
 - (B) For cattle, bulls, and other livestock greater than 500 pounds, the daily water use shall be 11 gallons of water per day per animal.
 - (C) For horses and mules, the daily water use shall be 13 gallons of water per day per animal.
 - (D) For milking cows, the daily water use shall be 16 gallons of water per day per animal.
- (2) A variance for water use associated with dust control on horse corrals or other animal exercise arenas (V_{corral}) shall be calculated by multiplying the square footage of corrals or other animal exercise arenas (A_{corral}) by the number of days per year the corrals or other animal exercise arenas may be watered (N_W) pursuant to paragraph (B), by 0.021 feet of water per water day, and then by 7.48 gallons per cubic foot. This formula is expressed mathematically as follows:

$$V_{corral} = A_{corral} \times N_W \times 0.021 \times 7.48$$

- (A) The square footage of corrals or other animal exercise arenas in the supplier's service area (A_{corral}) shall be either the value included in the Landscape Area Measurements Project update released as a separate corral dataset by the Department on December 6, 2023, or any updates thereafter, or alternative data, if the supplier demonstrates to the Department, in coordination with the Board, that the data are equivalent, or superior, in quality and accuracy to the data provided by the Department.
- (B) The number of days per year that corrals or other animal exercise arenas (N_W) may receive a water budget varies by climate zone as follows:
- (i) For climate zones 1 through 5 and zone 7, corrals or other animal exercise arenas shall be watered no more than 2 days per week.
 - (ii) For climate zones 6, 8 through 10, 12, and 16, corrals or other animal exercise arenas shall be watered no more than 3 days per week.
 - (iii) For climate zones 11 and 13 through 15, corrals or other animal exercise arenas shall be watered no more than 4 days per week.
 - (iv) If a supplier's service area spans multiple climate zones, the supplier shall, for the purposes of calculating this variance, use the climate zone that covers the majority of the supplier's service area. A supplier may, upon a showing to the satisfaction of the Board, use the climate zone that covers the majority of the square footage of corrals or other animal exercise arenas within the supplier's service area.
- (3) A variance for water used to irrigate residential agricultural landscapes (V_{Ag}) shall be calculated by multiplying a unit conversion factor of 0.62 by the values provided by the Department for the following parameters: the landscape efficiency factor (LEF_{Ag}) as described in paragraph (B), the square footage of residential agricultural landscapes (LA_{Ag}), and the net reference evapotranspiration for the aggregated growing seasons associated with the crops grown on residential agricultural landscapes ($Net\ ET_{0\ Ag}$). This formula is expressed mathematically as follows:

$$V_{Ag} = LEF_{Ag} \times LA_{Ag} \times Net\ ET_{0\ Ag} \times 0.62$$

- (A) Notwithstanding subdivision (f)(1)(B), if a supplier is using crop-specific landscape area, then the supplier may, in calculating its residential outdoor budget, include an approved variance for water used to irrigate residential agricultural landscapes if the associated water use for this variance represents 1 percent or more of the budget associated with the standard described in section 966 (c)(2). A supplier using crop-specific landscape area shall calculate a variance for water used to irrigate residential agricultural landscapes (V_{Ag}) by multiplying the square footage of the landscape area used for each crop (LA_{crop}) by each crop's unique efficiency factor (EF_{crop}) described in paragraph (C), by the net reference evapotranspiration associated with each crop's growing season ($Net\ ET_{0\ crop}$), and by a unit conversion factor of 0.62; and then summing the products for each crop. This formula is expressed mathematically as follows:

$$V_{Ag} = \sum_{crop} EF_{crop} \times LA_{crop} \times Net\ ET_{0\ crop} \times 0.62$$

- (B) The landscape efficiency factor for residential agricultural landscapes (LEF_{Ag}) shall be the annual factor, calculated using data provided by the Department, as the average regional crop coefficient divided by the average regional irrigation efficiency. The average regional crop coefficient for the reporting year will be based on the most recent Statewide Crop Mapping dataset developed by the Department and the most recent crop coefficients identified in the Food and Agriculture Organization of the United Nation's (FAO) Irrigation and Drainage Paper 24 (published in 1977), FAO's Irrigation and Drainage Paper 56 (published in 1998), the University of California Cooperative Extension's (UCCE) Leaflet 21427: Using Reference Evapotranspiration (ET_0) and Crop Coefficients to Estimate Crop Evapotranspiration (ET_c) for Agronomic Crops, Grasses, and Vegetable Crops (published in 1989), or UCCE's Leaflet 21428: Using Reference Evapotranspiration and Crop Coefficients to Estimate Crop Evapotranspiration for Trees and Vines (published in 1989), which are hereby incorporated by reference. The irrigation efficiency shall be based on the Application Efficiency: Hydrologic Region 2010 values developed by the University of California (UC) Davis Water Management Research Group that are located in the Research Report: Spatial Analysis of Application Efficiencies in Irrigation for the State of California (published in June 2013), hereby incorporated by reference, or a comparable tool if the supplier demonstrates to the Department that the tool is equivalent, or superior, in quality and accuracy.
- (C) Each crop's unique efficiency factor (EF_{crop}) shall be calculated as the crop coefficient divided by efficiency of the irrigation system associated with that specific crop in the supplier's service area. The crop coefficient values shall be the most recent crop coefficients identified in the FAO's Irrigation and Drainage Paper 24 (published in 1977), FAO's Irrigation and Drainage Paper 56 (published in 1998), UCCE's Leaflet 21427: Using Reference Evapotranspiration (ET_0) and Crop Coefficients to Estimate Crop Evapotranspiration (ET_c) for Agronomic Crops, Grasses, and Vegetable Crops (published in 1989), or UCCE's Leaflet 21428: Using Reference Evapotranspiration and Crop Coefficients to Estimate Crop Evapotranspiration for Trees and Vines (published in 1989). The irrigation efficiency shall be based on Application Efficiency: Hydrologic Region 2010 values developed by the UC Davis Water Management Research Group that are located in the Research Report: Spatial Analysis of Application Efficiencies in Irrigation for the State of California (published in June 2013), or a comparable tool if the supplier demonstrates to the Department that the tool is equivalent, or superior, in quality and accuracy.
- (4) A variance for water used to respond to a state or local emergency declared in accordance with Government Code section 8558 (b) or 8558 (c), not including a drought, shall be equal to the volume of water used to respond to the emergency event.
- (A) To be eligible for this variance, a supplier shall provide a copy of the emergency declaration pursuant to Government Code section 8558 (b) or 8558 (c), official evacuation orders, official incident reports, a document describing or map showing impacted parcels, and records of the total volume of water used as part of the emergency response efforts.
- (B) This variance shall not include water reported to the Board supporting a variance for unexpected adverse conditions pursuant to section 985.

(5)

- (A) A variance for the volume of water associated with landscapes irrigated with recycled water containing high levels of TDS (V_{HTDS}) shall be calculated by multiplying the applicable landscape efficiency factor (LEF_A) described in paragraph (i) or (ii) by the square footage of the landscape area irrigated with recycled water containing high levels of TDS (LA_{HTDS}), by net reference evapotranspiration ($Net\ ET_0$), and by a unit conversion factor of 0.62. This formula is expressed mathematically as follows:

$$V_{HTDS} = LEF_A \times LA_{HTDS} \times Net\ ET_0 \times 0.62$$

- (i) The landscape efficiency factor (LEF_A) for landscapes using recycled water with TDS concentrations between 900 and 1,600 milligrams per liter (mg/L) shall be calculated by multiplying 0.000371 by the difference between the TDS concentration, in mg/L, of the applied recycled water and 900. This formula is expressed mathematically as follows:

$$LEF_A = 0.000371 \times (\text{Concentration of recycled water} - 900)$$

- (ii) The landscape efficiency factor (LEF_A) for landscapes using recycled water with concentrations of TDS equal to or above 1,600 mg/L shall be 0.26.

- (B) Notwithstanding subdivision (f)(1)(C), a supplier may include a variance for water used to irrigate landscapes with recycled water containing high levels of TDS for which the sum of the associated water use calculated pursuant to this paragraph and section 969 (e)(2)(B) represents 1 percent or more of the sum of budgets described in section 966(c)(2) and (c)(3), if the supplier is using detailed plant based leaching requirements. A supplier using detailed, plant based leaching requirements shall calculate a variance for water used to irrigate landscapes with recycled water containing high levels of TDS (V_{HTDS}) by subtracting one from the applicable landscape efficiency factor (LEF_B) described below and multiplying the difference by the square footage of the landscape area irrigated with recycled water containing high levels of TDS (LA_{HTDS}), net reference evapotranspiration ($Net\ ET_0$), and a unit conversion factor of 0.62. This formula is expressed mathematically as follows:

$$V_{HTDS} = (LEF_B - 1) \times LA_{HTDS} \times Net\ ET_0 \times 0.62$$

- (i) The landscape efficiency factor (LEF_B) for recycled water applied via sprinkler systems shall be calculated by dividing the plant factor (PF) described in paragraph (iii) by the product of an irrigation efficiency factor of 0.75 and the difference between one and the plants' leaching requirement (LR) described in paragraph (iv). This formula is expressed mathematically as follows:

$$LEF_B = \frac{PF}{0.75 \times (1 - LR)}$$

- (ii) The landscape efficiency factor (LEF_B) for recycled water applied via drip irrigation systems shall be calculated by dividing the plant factor (PF) as described in paragraph (iii) by the product of an irrigation efficiency factor of 0.81 and the difference between one and the plants' leaching requirement (LR) as described in paragraph (iv). This formula is expressed mathematically as follows:

$$LEF_B = \frac{PF}{0.81 \times (1 - LR)}$$

- (iii) The plant factor shall be that of the lowest water-using plant that is present in at least 30 percent of the landscaped area.
- (iv) The leaching requirement (LR) shall be equal to the salinity of the recycled water measured as electrical conductivity (EC_{iw}), in dS/m, divided by the difference between the product of 5 and the plant's salinity threshold measured as electrical conductivity (EC_e), in dS/m, and the salinity of the recycled water measured as electrical conductivity (EC_{iw}), in dS/m. EC_{iw} shall be capped at the equivalent of 1,600 mg/L. This formula is expressed mathematically as follows:

$$LR = \frac{EC_{iw}}{(5 \times EC_e) - EC_{iw}}$$

- (C) Suppliers delivering recycled water with high levels of TDS for landscape irrigation shall only be eligible for the variance if the following conditions are met:
- (i) The facility that produces the recycled water has completed annual volumetric reporting requirements consistent with the Board's Water Quality Control Policy for Recycled Water, Resolution No. 2018-0057 (adopted by the Board on December 12, 2018), which is hereby incorporated by reference;
 - (ii) The application of the recycled water complies with all applicable waste discharge requirements;
 - (iii) The application of the recycled water does not violate the terms of the applicable salt or nutrient management plan;
 - (iv) The application of the recycled water adheres to the Board's Anti-Degradation Policy, Resolution No. 68-16 (adopted by the Board on October 28, 1968), which is hereby incorporated by reference, or any update thereto.
- (6) A supplier may include a variance for water use associated with ponds and lakes for sustaining wildlife, if the pond or lake is required to be maintained by regulation or local ordinance. A variance for water associated with ponds or lakes required to be maintained by regulation or local ordinance ($V_{wildlife}$) shall be calculated by multiplying 1.1 by the square footage of applicable ponds and lakes, by reference evapotranspiration less annual precipitation, and by a unit conversion factor of 0.62. This formula is expressed mathematically as follows:

$$V_{wildlife} = 1.1 \times \text{Ponds and Lakes Area} \times (ET_0 - \text{Annual Precipitation}) \times 0.62$$

- (A) A supplier may, for each reporting year, use an alternative data source for annual precipitation, if it demonstrates to the Department, in coordination with the Board, that the data are equivalent, or superior, in quality and accuracy to the data provided by the Department. Alternative data pursuant to this paragraph shall be reported pursuant to section 975.

(7)

- (A) Beginning July 1, 2040, a supplier may include a variance for water use associated with the irrigation of existing residential trees. This variance ($V_{R-trees}$), in gallons, shall be calculated by multiplying the square footage of existing residential trees ($A_{R-trees}$), by 0.08, by net reference evapotranspiration ($Net\ ET_0$), and by a unit conversion factor of 0.62. This formula is expressed mathematically as follows:

$$V_{R-trees} = A_{R-trees} \times 0.08 \times Net\ ET_0 \times 0.62$$

- (B) The square footage of existing residential trees ($A_{R-trees}$) shall be the square footage of existing residential tree canopy coverage within the supplier's residential landscape area, as described in subdivisions (b)(2) and (3). A supplier must describe and substantiate how the square footage of existing tree canopy was quantified.

- (C) A supplier shall only be eligible for the variance for existing residential trees if the following conditions are met:

- (i) The supplier submits to the Board an analysis that quantifies the irrigation needs of existing trees and evaluates how those needs are being met. The analysis shall be based on an inventory of existing trees within the supplier's service area. The inventory must include detailed tree data including but not limited to tree species and tree diameter at breast height for at least 10 percent of trees, or a statistically valid sample. The analysis and inventory must be prepared or validated by a credentialed or certified urban forester or certified arborist.
- (ii) The supplier submits to the Board an analysis demonstrating that meeting its water use objective pursuant to section 966 would require adhering to the residential outdoor standard identified in section 968 (a)(3) and that meeting the budget for efficient residential outdoor use would unavoidably and adversely affect tree health. The analysis must also demonstrate that the supplier cannot meet its water use objective pursuant to section 966 by first taking, incentivizing, or causing other feasible actions, such as the conversion of high-water use landscapes to climate-ready landscapes.
- (iii) The supplier submits, as an attachment to its annual report required by section 975(a), a link to, or an electronic copy of, the urban forest management plan or plans covering the supplier's service area and a description of efforts to prioritize water for existing residential trees, as described in subdivision (j); leverage regional and local partnerships to support the installation and maintenance of climate-ready landscapes; and expand green infrastructure, such as swales or rain gardens, to help meet tree irrigation needs.

(h)

- (1) An urban retail water supplier may, in calculating its annual urban water use objective, include budgets for temporary provisions for residential outdoor use if the supplier submits supporting information meeting the criteria described in subdivision (j).

- (2) Temporary provisions may be requested for water use associated with any of the following:

- (A) The planting of new, climate-ready trees
- (B) The establishment of qualifying landscapes.

- (i) Temporary provisions available pursuant to subdivision (h) shall be calculated as follows:

- (1) A temporary provision for the volume of water associated with planting climate-ready trees (Pr_{trees}) shall be calculated by multiplying the number of newly planted climate-ready trees (N_{trees}) by 4 square feet, by the number of days per year the newly planted climate-ready trees may be watered (N_w) pursuant to paragraph (C), by 0.85, by net reference evapotranspiration ($Net\ ET_0$), and by a unit conversion factor of 0.62. This formula is expressed mathematically as follows:

$$Pr_{trees} = (N_{trees} \times 4) \times N_w \times 0.85 \times Net\ ET_0 \times 0.62$$

- (A) A climate-ready tree is a tree that can be reasonably expected to survive both present and future climatic challenges such as heat, drought, extreme weather events, and pests within the supplier's service area. Each newly planted climate-ready tree is assumed to occupy 4 square feet.
- (B) A temporary provision for the volume of water associated with planting climate-ready trees applies for three years, starting with the fiscal year in which the trees were planted.
- (C) The number of days per year that newly planted climate-ready trees (N_w) may receive a water budget varies by climate zone as follows:
- (i) For climate zones 1 through 5 and zone 7, no more than 2 days per week.
 - (ii) For climate zones 6, 8 through 10, 12, and 16, no more than 3 days per week.
 - (iii) For climate zones 11 and 13 through 15, no more than 4 days per week.
 - (iv) If a supplier's service area spans multiple climate zones, the supplier shall, for the purposes of calculating this temporary provision, use the climate zone that covers the majority of the supplier's service area.
- (2) A temporary provision for the volume of water associated with the establishment of qualifying landscapes (Pr_{land}) as described in paragraph (A), shall be calculated by multiplying the square footage of the qualifying landscapes (LA_{land}) by 0.85, by net reference evapotranspiration ($Net\ ET_0$), and by a unit conversion factor of 0.62. This formula is expressed mathematically as follows:

$$Pr_{land} = LA_{land} \times 0.85 \times Net\ ET_0 \times 0.62$$

- (A) Qualifying landscapes are those that require temporary irrigation and are associated with at least one of the following: low-impact development, ecological restoration, and mined-land reclamation projects.
- (B) A temporary provision for water for the establishment of qualifying landscapes applies for three reporting periods, starting with the fiscal year in which irrigation of the qualifying landscape begins.

- (j) In order to receive approval for either a variance or a temporary provision, an urban retail water supplier must submit to the Board in a machine-readable format for review and approval by the Executive Director, or the Executive Director's designee, a request that includes information quantifying and substantiating each request; information demonstrating that the water applicable to the request is water delivered by the supplier; information verifying that the approval of the request would not jeopardize the ability of a permittee within the supplier's service area to comply with existing permit requirements; information describing and supporting the methodology the supplier will use to estimate the parameters described in section 968 (f) and 968 (h); and a description of efforts to prioritize water for existing trees, including, but not limited to service-area wide rebate, direct install, and educational programs focused on transitioning to irrigation systems that promote deep and healthy root growth. Such irrigation systems include but are not limited to soaker hoses, deep drip watering stakes, drip tubing, and emitters.
- (1) Approved variances or temporary provisions submitted between July 1 and October 1 may be included in the associated budget for the prior state fiscal year.
 - (2) Approved variances or temporary provisions submitted between October 2 and June 30 may be included in the associated budget for the current state fiscal year.
 - (3) Approved variances and temporary provisions may be included in the associated budget for up to five years. Variance and temporary provision approval constitutes approval of both methodology and data. Unless otherwise specified in section 975, a supplier may use the same data for each year or update the data annually in accordance with the approved variance or temporary provision methodology.

Authority: Sections 1058 and 10609.2, Water Code.

References: Article X, Section 2, California Constitution; Section 3080, Civil Code; Sections 8558 and 51201, Government Code; Sections 102, 104, 105, 350, 1122, 1123, 1124, 1846, 1846.5, 10608.12, 10609.2, and 10609.6, Water Code.

Adopt new section 969:

§ 969. Standard for outdoor irrigation of landscape areas with dedicated irrigation meters or equivalent technology in connection with commercial, industrial, and institutional (CII) water use.

- (a)
- (1) Through June 30, 2028, an urban retail water supplier's budget for commercial, industrial, and institutional landscapes with dedicated irrigation meters (S_{DIM}) shall be the supplier's actual deliveries associated with landscape irrigation reported to the Board pursuant to Health and Safety Code section 116530.
 - (2) Beginning July 1, 2028, and through June 30, 2035, the standard for CII landscapes with DIMs (S_{DIM}) shall be a landscape efficiency factor of 0.80.
 - (3) Beginning July 1, 2035, and through June 30, 2040, the standard for CII landscapes with DIMs (S_{DIM}) shall be a landscape efficiency factor of 0.63.
 - (4) Beginning July 1, 2040, the standard for CII landscapes with DIMs (S_{DIM}) shall be a landscape efficiency factor of 0.45.
 - (5) For CII landscapes with DIMs that are special landscape areas, the standard ($S_{DIM\ SLA}$) shall be a landscape efficiency factor of 1.0. The $S_{DIM\ SLA}$ shall be applied to CII landscapes with DIMs that are special landscape areas as defined in section 491 as well as CII landscapes with DIMs that are any of the following:
 - (A) Slopes designed and constructed with live vegetation as an integral component of stability;

- (B) Ponds or lakes receiving supplemental water for purposes of sustaining wildlife, recreation, or other public benefit, excluding water reported to the Board supporting a variance for ponds and lakes for sustaining wildlife required to be maintained by regulation or local ordinance;
 - (C) Plant collections, botanical gardens, and arboretums;
 - (D) Public swimming pools and similar recreational water features;
 - (E) Cemeteries built before 2015; and
 - (F) Landscapes irrigated with recycled water.
- (6) The standard for newly constructed CII landscapes with DIMs shall be a landscape efficiency factor of 0.45.

(b)

- (1) Beginning July 1, 2028, an urban retail water supplier shall calculate its budget for commercial, industrial, and institutional landscapes with dedicated irrigation meters (CII_{DIM}), in gallons, by multiplying the applicable standard (S_{DIM}) described in subdivision (a) by the measured total square footage of the irrigated area of CII landscapes with DIMs (DIM_{LA}), by net reference evapotranspiration ($Net\ ET_0$), and by a unit conversion factor of 0.62. This formula is expressed mathematically as follows:

$$CII_{DIM} = S_{DIM} \times DIM_{LA} \times Net\ ET_0 \times 0.62$$

- (2) No later than July 1, 2028, and periodically thereafter, a supplier shall quantify the measured total square footage of the irrigated area of CII landscapes with DIMs (DIM_{LA}) and describe and substantiate how that area was quantified. Annual updates shall include the square footage of large landscapes that have had DIMs installed in accordance with section 973.
- (3) A supplier may, for each reporting year, use alternative data sources for reference evapotranspiration and effective precipitation if the supplier demonstrates to the Department, in coordination with the Board, that the data are equivalent, or superior, in quality and accuracy to the data provided by the Department. The alternative data shall be reported pursuant to section 975.

(c)

- (1) Notwithstanding subdivision (b)(1), if an urban retail water supplier delivers water to commercial, industrial, and institutional landscapes with dedicated irrigation meters that are special landscape areas, the supplier may calculate its budget for CII landscapes with DIMs as follows: Subtract the square footage of CII landscapes with DIMs that are special landscape areas (DIM_{SLA}) from the total area of CII landscapes with DIMs (DIM_{LA}). Then multiply the result by the applicable standard for CII landscapes with DIMs (S_{DIM}) described in subdivision (a). Add that value to the product of the standard for CII landscapes with DIMs that are special landscape areas ($S_{DIM_{SLA}}$) described in subdivision (a)(5) and the square footage of CII landscapes with DIMs that are special landscape areas (DIM_{SLA}). Then, multiply that sum by net reference evapotranspiration ($Net\ ET_0$) and by a unit conversion factor of 0.62. This formula is expressed mathematically as follows:

$$CII_{DIM} = ((S_{DIM} \times (DIM_{LA} - DIM_{SLA})) + (S_{DIM_{SLA}} \times DIM_{SLA})) \times Net\ ET_0 \times 0.62$$

- (2) In order to calculate the budget pursuant to this subdivision, a supplier may demonstrate to the Department, in coordination with the Board, that the landscape areas meet the definition specified in subdivision (a)(5). Special landscape area data shall be reported pursuant to section 975, and, unless updated pursuant to this paragraph, approved data may be included for up to five years.

(d)

- (1) Beginning July 1, 2028, an urban retail water supplier may add to its budget for commercial, industrial, and institutional landscapes with dedicated irrigation meters (CII_{DIM}) calculated pursuant to (b)(1) or (c)(1) the volume of water associated with CII landscapes with DIMs that are newly constructed landscapes. The budget for CII landscapes with DIMs that are newly constructed landscapes ($C_{DIM, new}$), in gallons, is calculated by multiplying the standard ($S_{DIM-new}$) described in subdivision (a)(6) by the square footage of newly constructed CII landscapes with DIMs ($DIM LA_{new}$), by net reference evapotranspiration ($Net ET_0$), and by a unit conversion factor of 0.62. This formula is expressed mathematically as follows:

$$CII_{DIM, new} = S_{DIM-new} \times DIM LA_{new} \times Net ET_0 \times 0.62$$

- (2) The existence of newly constructed CII landscapes with DIMs shall be demonstrated by using:
- (A) Data from annual reporting required by section 495(b)(6), provided the report has disaggregated newly constructed CII landscapes with DIMs from the total landscape area reported,
 - (B) On the ground measurements of newly constructed CII landscapes with DIMs, or
 - (C) Measurements of newly constructed CII landscapes with DIMs collected using accurate remote sensing methods.

(e)

- (1) An urban retail water supplier may annually, in calculating its urban water use objective, include budgets for variances for water use on commercial, industrial, and institutional landscapes with dedicated irrigation meters, if the supplier submits supporting information meeting the criteria described in section 968(j), and, for the variances identified in (2)(A) and (2)(B), the associated water use meets the applicable criteria specified in section 968(f)(1)(C) or section 968(g)(5)(B).
- (2) Variances may be requested for water use associated with any of the following:
- (A) Responding to emergency events, not including drought
 - (B) Irrigating landscapes with recycled water containing high levels of TDS
 - (C) Supplementing ponds and lakes to sustain wildlife as required by existing regulations or local ordinances
 - (D) Irrigating existing trees on CII landscapes with DIMs.

(f) Variances available pursuant to subdivision (e) shall be calculated as follows:

- (1) A variance for water used to respond to a state or local emergency, not including a drought, shall be calculated in the manner described in section 968(g)(4).
- (2) A variance for water used for landscapes irrigated with recycled water containing high levels of TDS shall be calculated in the manner described in section 968(g)(5).
- (3) A variance for water used to supplement ponds and lakes to sustain wildlife as required by existing regulations or local ordinances shall be calculated in the manner described in section 968(g)(6).

- (4)
- (A) Beginning July 1, 2040, a supplier may include a variance for water use associated with the irrigation of existing trees on CII landscapes with DIMs. The variance ($V_{\text{CII-trees}}$) for water used to irrigate existing trees on CII landscapes with DIMs, in gallons, shall be calculated by multiplying the square footage of existing trees ($A_{\text{CII-trees}}$) by 0.18, by net reference evapotranspiration (Net ET_0), and by a unit conversion factor of 0.62. This formula is expressed mathematically as follows:

$$V_{\text{CII-trees}} = A_{\text{CII-trees}} \times 0.18 \times \text{Net ET}_0 \times 0.62$$

- (B) The square footage of existing trees on CII landscapes with DIMs ($A_{\text{CII-trees}}$) shall be the square footage of existing tree canopy coverage within the square footage of CII landscapes with DIMs calculated pursuant to subdivision (b)(2). A supplier must describe and substantiate how the square footage of existing tree canopy was quantified.
- (C) A supplier shall only be eligible for this variance if the conditions described in section 968(g)(7)(C) are met for existing trees on CII landscapes with DIMs, except that the supplier must substantiate that meeting its water use objective pursuant to section 966 would require adhering to the outdoor standard identified in section 969(a)(3) and that meeting the budget for efficient outdoor use on CII landscapes with DIMs would unavoidably and adversely affect tree health. The analysis must also demonstrate that the supplier cannot meet its water use objective pursuant to section 966 by first taking, incentivizing, or causing other feasible actions, such as the conversion of high-water use landscapes to climate-ready landscapes.
- (g)
- (1) An urban retail water supplier may annually, in calculating its urban water use objective, include budgets for temporary provisions for water use on commercial, industrial, and institutional landscapes with dedicated irrigation meters if the supplier submits supporting information meeting the criteria described in section 968(j).
- (2) Temporary provisions may be requested for water use associated with any of the following:
- (A) Planting new, climate-ready trees
- (B) Establishing qualifying landscapes, as defined in section 968(i)(2)(A).
- (h) Temporary provisions available pursuant to subdivision (g) shall be calculated as follows:
- (1) A temporary provision for the planting of new, climate-ready trees shall be calculated in the manner described in section 968(i)(1).
- (2) A temporary provision for water used for the establishment of qualifying landscapes that require temporary irrigation shall be calculated in the manner described in section 968(i)(2).

Authority: Sections 1058 and 10609.2, Water Code.

References: Article X, Section 2, California Constitution; Section 51201, Government Code; Sections 102, 104, 105, 350, 1122, 1123, 1124, 1846, 1846.5, 10608.12, 10609.2, 10609.8, and 10609.9, Water Code.

Adopt new section 970:

§ 970. Water Loss

- (a) Suppliers shall calculate system-specific standards for real water loss pursuant to section 982.
- (b)
- (1) Each year, suppliers that own and operate a single system shall calculate their water loss budget ($B_{\text{water loss}}$), in gallons, by multiplying the applicable water loss standard ($S_{\text{water loss}}$) calculated pursuant to section 982 by the number of days in the year, and, depending on the units associated with the standard calculated pursuant to section 982, by either the number of total service connections (C) or the length of the distribution system, in miles (M). These formulas are expressed mathematically as follows:

$$B_{\text{water loss}} = S_{\text{water loss}} \times C \times \text{days in the year}$$

OR

$$B_{\text{water loss}} = S_{\text{water loss}} \times M \times \text{days in the year}$$

- (2) Suppliers that own and operate multiple systems shall calculate an aggregate annual water loss budget ($SB_{\text{water loss}}$) as described in paragraph (1) for each system and then by summing the estimated efficient water loss budgets associated with each system. This formula is expressed mathematically as follows, with $B_{\text{water loss for system (i)}}$ referring to the water loss budget for system i in the set of all the systems owned and operated by the supplier (i is the summation index):

$$SB_{\text{water loss}} = \sum_{\substack{i \text{ in the set of} \\ \text{all the systems} \\ \text{of the supplier}}} B_{\text{water loss for system (i)}}$$

- (c) Prior to a supplier's initial compliance deadline specified in section 981, the supplier's water loss budget may, alternatively, be equal to its previous year's real water losses reported in its annual water loss audit submitted to the Department pursuant to Water Code section 10608.34 (c).

Authority: Sections 1058 and 10609.2, Water Code.

References: Article X, Section 2, California Constitution; Sections 102, 104, 105, 350, 1122, 1123, 1124, 1846, 1846.5, 10608.12, 10608.34, 10609.2, and 10609.12, Water Code.

Adopt new section 971:

§ 971. Bonus Incentive

- (a) If an urban retail water supplier delivers water from a groundwater basin, reservoir, or other source that is augmented by potable reuse water, the supplier may add a bonus incentive to its objective. The bonus incentive shall be calculated pursuant to subdivision (b), in accordance with one of the following:
- (1) If the potable reuse water is produced at an existing facility as defined in Water Code section 10609.20(d)(4), the bonus incentive shall not exceed 15 percent of the sum of the budgets described in section 966(c)(1) through (5).
 - (2) For potable reuse water produced at all other facilities, the bonus incentive shall not exceed 10 percent of the sum of the budgets described in section 966(c)(1) through (5).
- (b) The bonus incentive shall be calculated by multiplying the urban retail water supplier's potable reuse volume (V_{PR}), in gallons, calculated in accordance with any combination of paragraphs (1), (2), or (3), depending on where the potable reuse water is obtained, by the portion of total potable water production (T_{PW}) delivered to residential and landscape irrigation connections (D_{RLI}) for the reporting year. This formula is expressed mathematically as follows:

$$Bonus\ Incentive = V_{PR} \times \frac{D_{RLI}}{T_{PW}}$$

- (1) A supplier shall calculate the volume of potable reuse water obtained from a groundwater source (V_{PRG}) by dividing the product of the loss factor for groundwater recharge and recovery (LF_G) and the volume of potable recycled water recharging the groundwater basin (R) by total groundwater basin extractions (V_{BP}). The quotient is then multiplied by the supplier's groundwater basin extraction (V_G). The formula is expressed mathematically as follows:

$$V_{PRG} = \left(\frac{LF_G \times R}{V_{BP}} \right) \times V_G$$

The loss factor for groundwater recharge and recovery (LF_G) shall be calculated according to the Department's Recommendations for Bonus Incentive Methods of Calculation and Supporting Data Requirements (published September 22, 2022), which is hereby incorporated by reference, or an alternative method that the supplier has demonstrated to the Department, in coordination with the Board, to be equivalent, or superior, in quality and accuracy.

- (2) A supplier shall calculate the volume of potable reuse water obtained from an augmented reservoir source (V_{PRS}) by dividing the product of the loss factor for evaporation and seepage (LF_S) and the volume of potable recycled water augmenting the reservoir (A) by the total volume of water produced from the augmented reservoir (V_{SWP}). The quotient is then multiplied by the volume of water the supplier produced from the augmented reservoir (V_{SW}). The formula is expressed mathematically as follows:

$$V_{PRS} = \left(\frac{LF_S \times A}{V_{SWP}} \right) \times V_{SW}$$

- (3) A supplier shall calculate the volume of potable reuse water obtained from a Direct Potable Reuse project (V_{PRD}) by multiplying the volume of finished water produced from the DPR project ($V_{FIN-DPR}$) by the fraction (F) of water the supplier derived from the facility producing the finished water. The formula is expressed mathematically as follows:

$$V_{PRD} = V_{FIN-DPR} \times F$$

Authority: Sections 1058 and 10609.20, Water Code.

References: Article X, Section 2, California Constitution; Sections 102, 104, 105, 350, 1122, 1123, 1124, 1846, 1846.5, 10608.12, 10609.2, 10609.20, and 10609.21, Water Code.

Adopt new section 972:

§ 972. Performance Measures: Commercial, Industrial, and Institutional classification system

- (a) Each urban retail water supplier shall annually classify each commercial, industrial, and institutional water user, based on the end-use of water for the water user, in accordance with ENERGY STAR Portfolio Manager's broad categories.
- (b) In addition to ENERGY STAR Portfolio Manager's broad categories, each supplier shall identify every CII water user associated with:
 - (1) CII laundries
 - (2) Landscapes with Dedicated Irrigation Meters
 - (3) Water recreation
 - (4) Car wash. For every CII water user associated with a car wash for which the car wash accounts for the majority of that water user's water use, the supplier shall also identify the water user's ENERGY STAR Portfolio Manager property type.
- (c) Each supplier shall classify its existing CII water users by June 30, 2027. By June 30, 2028 and thereafter, the supplier shall maintain, for each reporting year, at least a 95 percent classification rate of all its CII water users.
- (d) For systems that do not meet the criteria to be considered an urban retail water supplier until after the effective date of this section, and for a system that hydraulically consolidates with a supplier, this section applies beginning five (5) years after the system meets the criteria to be considered a supplier or consolidates with a supplier.

Authority: Sections 1058 and 10609.10, Water Code.

References: Article X, Section 2, California Constitution; Sections 102, 104, 105, 350, 1122, 1123, 1124, 1846, 1846.5, 10608.12, 10609.2, and 10609.10, Water Code.

Adopt new section 973:

§ 973. Threshold for converting Commercial, Industrial, and Institutional landscapes with mixed meters to Dedicated Irrigation Meters or employing in-lieu water management technologies

- (a) Each urban retail water supplier shall either:
 - (1) By June 30, 2027, identify all existing commercial, industrial, and institutional (CII) water users associated with large landscapes; or
 - (2) By June 30, 2029, identify all existing CII water users associated with a large landscape and for which estimated outdoor water use exceeds the water budget calculated pursuant to subdivision (c)(1).
- (b)
 - (1) For existing CII water users identified pursuant to subdivision (a), a supplier shall either install dedicated irrigation meters (DIMs) or employ at least one of the in-lieu technologies from paragraph (2) and offer the best management practices (BMPs) from paragraph (3).
 - (2) In-lieu technologies include:
 - (A) Water budget-based management program without a rate structure
 - (B) Water budget-based rate structures
 - (C) Installation of technologies that enables the supplier to identify, estimate, and analyze outdoor water use, which may include but is not limited to Advanced Metering Infrastructure
 - (D) Use of technologies that enable suppliers to identify, estimate, and analyze outdoor water use, which may include but are not limited to remote sensing
 - (E) Other in-lieu technologies that enable suppliers to identify, estimate, and analyze water use or improve outdoor water use efficiency, subject to Board approval.
 - (3) Best management practices include, at a minimum, one BMP from section 974(f)(1) and at least two BMPs identified in section 974 (f)(3), including (B) and (C).
- (c)
 - (1) A supplier that calculates a budget for commercial, industrial, and institutional water users associated with large landscapes (CII_{MUM}) pursuant to subdivision (a)(2) shall do so by multiplying the area of those landscapes (LA_{LL}) by net reference evapotranspiration ($Net\ ET_0$), by 0.63 or, for Special Landscape Areas, 1.0, and by a unit conversion factor of 0.62. This formula is expressed mathematically as follows:
$$CII_{MUM} = LA_{LL} \times Net\ ET_0 \times (0.63 \text{ or, for Special Landscape Areas, } 1.0) \times 0.62$$
 - (2) For purposes of this section, the area of the landscapes (LA_{LL}) shall include only CII water users associated with large landscapes and shall be quantified and substantiated by the supplier using data generated by the Department.
 - (3) Notwithstanding paragraph (2), a supplier may use data that it has demonstrated to the Department, in coordination with the Board, to be equivalent or superior in quality and accuracy.
- (d) By June 30, 2039, a supplier shall have either installed dedicated irrigation meters (DIMs) on, or employed in-lieu water technologies for and offered BMPs to, all the water users identified pursuant to subdivision (a). By June 30, 2040 and thereafter, the supplier shall either have installed a DIM on, or employed in-lieu water technologies for and offered BMPs to, at least 95 percent of all commercial, industrial, and institutional (CII) water users associated with large landscapes, as assessed on a reporting year basis.

- (e) For systems that do not meet the criteria to be considered an urban retail water supplier until after the effective date of this section, and for a system that hydraulically consolidates with a supplier, this section applies beginning fifteen (15) years after the system meets the criteria to be considered a supplier or consolidates with a supplier.

Authority: Sections 1058 and 10609.10, Water Code.

References: Article X, Section 2, California Constitution; Sections 102, 104, 105, 350, 1122, 1123, 1124, 1846, 1846.5, 10608.12, 10609.2, and 10609.10, Water Code.

Adopt new section 974:

§ 974. Commercial, Industrial and Institutional water use best management practices for customers that exceed a recommended size, volume of water use, or other threshold

- (a) By June 30, 2024, or the effective date of this section, whichever comes later, each supplier shall identify the disclosable buildings in its service area. In identifying the disclosable buildings within its service area, a supplier shall use the list of disclosable buildings the California Energy Commission has made available on its public website pursuant to California Code of Regulations, title 20, section 1683.
- (b) For a building that meets the definition of a disclosable building in section 1681 of the California Code of Regulations at title 20, a supplier shall, upon the building owner or Owner's Agent request, complete the following:
 - (1) For each meter, deliver the last four characters of the meter serial number serving the building.
 - (2) For each meter, aggregate water use data, in monthly intervals, for at least the previous year, by one of the following methods:
 - (A) A supplier not using ENERGY STAR Portfolio Manager's Data Exchange Services shall send the data to the building owner or Owner's Agent using the template provided by ENERGY STAR Portfolio Manager or in a format compatible with the template.
 - (B) Suppliers using ENERGY STAR Portfolio Manager's Data Exchange Services shall provide the data by direct upload to the building owner's or Owner's Agent's ENERGY STAR Portfolio Manager account, or, at the building owner's or Owner's Agent's request, send the data to the building owner or Owner's Agent using the template provided by ENERGY STAR Portfolio Manager or in a format compatible with the template.
- (c) Each supplier shall identify CII water users according to one of the following paragraphs (1), (2), or (3):
 - (1) By June 30, 2025, identify:
 - (A) Existing CII water users at or above the 97.5th percentile for CII water use; and
 - (B) Existing CII water users at or above the supplier's 80th percentile for CII water use.
 - (2) By June 30, 2027, identify:
 - (A) Existing CII water users at or above the supplier's 97.5th percentile for CII water use; and
 - (B) Existing CII water users at or above the supplier's 80th percentile for water use in each of the classification categories described in section 972.
 - (3) By June 30, 2029, identify existing CII water users that appear to be inefficient according to key business activity indicators (KBAI) the supplier has developed for the classification categories described in section 972. A supplier may also develop KBAs for the specific ENERGY STAR Portfolio Manager property types.

- (d) For the water users identified pursuant to (c)(1)(A) or (c)(2)(A), a supplier shall design, and implement pursuant to subdivision (h), a conservation program that includes at least two of the best management practices from each of paragraphs (1) through (5) in subdivision (f).
- (e) For the water users identified pursuant to (c)(1)(B), (c)(2)(B), or (c)(3), a supplier shall design, and implement pursuant to subdivision (h), a conservation program that includes at least one of the best management practices from each of paragraphs (1) through (5) in subdivision (f).
- (f)
 - (1) Outreach, Technical Assistance, and Education best management practices.
 - (A) Direct contacts via site visits or phone calls
 - (B) Informative or educational bill inserts
 - (C) Conducting workshop or developing training videos
 - (D) Webpage portals to access information, tools, and rebates
 - (E) Cost-effectiveness analysis tools
 - (F) Commercials or advertisements
 - (G) Grass roots marketing
 - (H) Community based social marketing
 - (I) Other CII-best management practices derived from additional innovation and technology advancement that can be taken by suppliers, subject to Board approval
 - (2) Incentive best management practices.
 - (A) Rebates and cost-sharing for replacing inefficient fixtures, equipment, irrigation systems or landscapes with water efficient ones
 - (B) Certification or branding programs that recognize customers as water efficient
 - (C) Incentives for technologies that enable customers to identify, measure, and analyze indoor and outdoor water use
 - (D) Other CII-best management practices derived from additional innovation and technology advancement that can be taken by suppliers, subject to Board approval
 - (3) Landscape best management practices.
 - (A) Landscape and irrigation management practices to promote improved water use efficiency
 - (B) Irrigation system inspections, audits, or surveys
 - (C) Training or guidance on irrigation scheduling and maintenance
 - (D) New development landscape inspection, workshops, and training
 - (E) Programs to remove turf and replace it with climate-ready vegetation
 - (F) Programs to decrease urban heat and reduce turf water use by planting trees
 - (G) Programs to install green infrastructure such as swales or rain gardens that offset irrigation needs
 - (H) Other CII-best management practices derived from additional innovation and technology advancement that can be used by suppliers, subject to Board approval
 - (4) Collaboration and coordination best management practices.
 - (A) Coordination with “green” building certification or recognition programs to promote water use efficiency
 - (B) Coordination with land use authorities to check new landscapes design and implementation
 - (C) Collaboration with non-governmental organizations on outreach and education
 - (D) Collaboration with municipal arborists and tree planting organizations to expand and maintain urban forests
 - (E) Collaboration with stormwater agencies to install green infrastructure such as swales or rain gardens to also offset irrigation needs

- (F) Other CII-best management practices derived from additional innovation and technology advancement that can be taken by suppliers, subject to Board approval
- (5) Operational best management practices.
 - (A) Infrastructure changes (for example, smart meter replacement programs)
 - (B) Billing or data collection procedures (for example, data tracking, analysis, and reporting improvements)
 - (C) Other operational best management practices to facilitate CII best management practices program implementation and evaluation
 - (D) Other CII best management practices derived from additional innovation and technology advancement that can be taken by suppliers, subject to Board approval
- (g)
 - (1) Notwithstanding subdivisions (d) and (e), a supplier for which annual CII water deliveries are 10 percent or less of total deliveries, as averaged over a five-year period, shall design and implement pursuant to subdivision (h) a conservation program that includes at least two of the best management practices from in subdivision (f)(1).
 - (2) Notwithstanding subdivisions (d) and (e), a supplier need not offer BMPs from subdivision (f)(3) to customers that meet the criteria identified in this section but do not use water outdoors.
 - (3) For purposes of subdivisions (d) and (e), a supplier may rely on a regional entity in lieu of designing its own conservation program.
- (h)
 - (1) By June 30, 2039, a supplier shall implement a conservation program for existing CII customers meeting the criteria identified in this section. After June 30, 2040, the supplier shall maintain a conservation program for all CII customers meeting the criteria identified in this section.
 - (2) For purposes of this section, a supplier may rely on implementation by a regional entity in lieu of implementing its own conservation program.
- (i) For systems that do not meet the criteria to be considered an urban retail water supplier until after the effective date of this section, and for a system that hydraulically consolidates with a supplier, this section applies beginning fifteen (15) years after the system meets the criteria to be considered a supplier or consolidates with a supplier.

Authority: Sections 1058 and 10609.10, Water Code.

References: Article X, Section 2, California Constitution; Section 4185, Civil Code; Sections 102, 104, 105, 350, 1122, 1123, 1124, 1846, 1846.5, 10608.12, 10609.2, and 10609.10, Water Code.

Adopt new section 975:

§ 975. Reporting

- (a) Each urban retail water supplier shall submit to the Board, no later than January 1, 2024, and by January 1 every year thereafter, the report required by Water Code section 10609.24. The report shall reflect the conditions of the previous state fiscal year, except as specified in subdivision (b).
- (b) No later than January 1, 2025, and by January 1 every year thereafter, each urban retail water supplier shall submit to the Board, on a machine-readable form provided by the Board, the supplier's urban water use objective calculated pursuant to section 966 along with relevant and supporting data. Relevant and supporting data shall reflect the previous state fiscal year's conditions, unless approved pursuant to section 967(e) or section 968(j), and shall include:

- (1) For the residential indoor water use budget described in section 967, the following parameters:
 - (A) The volume of water associated with the residential indoor budget (R_{indoor}) calculated pursuant to section 967.
 - (B) Residential service area population. The residential service area population shall be the annual value reported to the Board pursuant to Health and Safety code section 116530 and California Code of Regulations, title 22, section 64412.
 - (C) If the supplier has requested and received approval to include in its objective a budget associated with the evaporative cooler variance pursuant to section 967(b)(2), the following information:
 - (i) The volume of water associated with the variance (V_{EC}) calculated pursuant to section 967(c)(1). This must be calculated and updated annually.
 - (ii) The number of evaporative coolers in the service area (N_{EC})
 - (iii) The average daily operating hours (H_{O})
 - (iv) The average daily evaporative rate (R_{EC})
 - (v) The number of operating days as described in section 967(c)(1). This must be calculated and updated annually.
 - (D) If the supplier has requested and received approval to include in its objective a budget associated with the seasonal population variance pursuant to section 967(b)(2), the following information:
 - (i) The volume of water associated with the variance (V_{SP}) calculated pursuant to section 967(c)(2)
 - (ii) The number of dwelling units associated with seasonal occupancy (N_{DU})
 - (iii) The occupancy rate (R_{O})
 - (iv) If using the method described in section 967(c)(2)(C), the parameters described in this paragraph must be calculated and updated annually.
- (2) For the residential outdoor water use budget described in section 968:
 - (A) The volume of water associated with the residential outdoor budget (R_{outdoor}) calculated pursuant to section 968.
 - (B) Annual reference evapotranspiration and effective precipitation data provided by the Department, or alternative reference evapotranspiration or effective precipitation data meeting the criteria specified in section 968(b)(4).
 - (C) Residential landscape area data provided by the Department, or alternative residential landscape area data meeting the criteria specified in section 968(b)(3).
 - (D) Any residential special landscape area meeting the criteria specified in section 968 (c). For residential special landscape areas irrigated with recycled water, the supplier shall, unless otherwise specified, provide information to trace the recycled water network at least once every five years:
 - (i) The Public Water System Identification (PWSID) number associated with each system delivering recycled water to residential landscapes
 - (ii) Annual metered non-potable residential landscape irrigation demand, as reported to the Board pursuant to Health and Safety Code section 116530. This must be updated annually.
 - (iii) The GeoTracker Global Identification Number used for Volumetric Annual Reporting by each facility producing the recycled water that the supplier reported delivering to residential landscapes
 - (iv) The PWSID number associated with each system producing the recycled water from each facility identified in (iii)

- (v) The square footage of residential land irrigated with recycled water. If annually reported to a Regional Water Quality Control Board, the value reported pursuant to this section shall be the same value as annually reported to the Regional Water Quality Control Board.
- (vi) The Waste Discharge Identification Number (WDID) associated with the land application of recycled water.
- (E) Any residential landscape area associated with new construction and meeting the criteria specified section 968 (e)(2).
- (F) If the supplier has requested and received approval to include in its objective a budget associated with the variance for horses and other livestock water use pursuant to section 968(f)(2):
 - (i) The volume of water associated with the variance ($V_{\text{livestock}}$) calculated pursuant to section 968(g)(1)
 - (ii) The number of animals according to each animal type-class
 - (iii) The average number of days per year that water is provided to each animal type-class.
- (G) If the supplier has requested and received approval to include in its objective a budget associated with the variance for water associated with dust control on horse corrals or other animal exercise arenas pursuant to section 968(f)(2):
 - (i) The volume of water associated with the variance (V_{corral}) calculated pursuant to section 968(g)(2)
 - (ii) The square footage of corrals or other animal exercise arenas provided by the Department, or alternative data as specified in section 968(g)(2)(A).
- (H) If the supplier has requested and received approval to include in its objective a budget associated with the variance to irrigate residential agricultural landscapes pursuant to section 968(f)(2), the following information:
 - (i) The volume of water associated with the variance (V_{Ag}) calculated pursuant to section 968(g)(3). This must be calculated and updated on an annual basis.
 - (ii) Reference evapotranspiration and effective precipitation data for the aggregated growing seasons associated with the crops grown on residential agricultural landscapes This must be calculated and updated on an annual basis
 - (iii) The average regional crop coefficient
 - (iv) The average regional irrigation efficiency
 - (v) The square footage of residential agricultural landscapes.
- (I) If the supplier has requested and received approval to include in its objective a budget associated with the variance to irrigate residential agricultural landscapes pursuant to section 968(f)(2) and if the variance is calculated using crop-specific landscape area, the following information:
 - (i) The volume of water associated with the variance (V_{Ag}) calculated pursuant to section 968(g)(3)(A). This must be calculated and updated on an annual basis
 - (ii) The reference evapotranspiration and effective precipitation data associated with each crop's growing season. This must be calculated and updated on an annual basis
 - (iii) The unique efficiency factor for each crop, calculated according to section 968(g)(3)(C)
 - (iv) The landscape area associated with each crop, as estimated by the supplier.

- (J) If the supplier has requested and received approval to include in its objective a budget associated with the variance for water used to respond to state or local emergency events pursuant to sections 968(f)(2), the following information, which must be calculated and updated on an annual basis:
 - (i) The volume of water associated with the variance
 - (ii) The required documentation described in section 968(g)(4).
- (K) If the supplier has requested and received approval to include in its objective a budget associated with the variance to irrigate landscapes with recycled water containing high levels of TDS pursuant to section 968(f)(2) and relied on the calculation method described in section 968(g)(5)(A):
 - (i) The volume of water associated with the variance (V_{HTDS}) calculated pursuant to section 968(g)(5)(A). This must be calculated and updated on an annual basis.
 - (ii) The square footage of residential land irrigated with recycled water containing high levels of TDS. If reported to a Regional Water Quality Control Board, the value reported pursuant to this section shall be the same value as reported to the Regional Water Quality Control Board.
 - (iii) The concentration of TDS, in mg/L
 - (iv) The Public Water System Identification (PWSID) number associated with each system delivering to residential landscapes recycled water containing high levels of TDS
 - (v) Annual metered non-potable residential landscape irrigation demand, as reported to the Board pursuant to Health and Safety Code section 116530. This must be updated annually.
 - (vi) The GeoTracker Global Identification Number used for Volumetric Annual Reporting by each facility producing the recycled water containing high levels of TDS
 - (vii) The PWSID associated with each system producing the recycled water from each facility identified in (vi)
 - (viii) The waste discharge identification number (WDID) for the Waste Discharge Requirements associated with the land application of treated recycled water with high levels of TDS
 - (ix) The permitted concentration of TDS, in mg/L
 - (x) The permitted volume of applied recycled water, in gallons
 - (xi) An electronic copy of the applicable salt and nutrient management plan or plans, if any.
- (L) If the supplier has requested and received approval to include in its objective a budget associated with the variance to irrigate landscapes with recycled water containing high levels of TDS pursuant to section 968(f)(2) and relied on the calculation method described in section 968(g)(5)(B):
 - (i) All parameters identified in paragraph (K), except (iii)
 - (ii) The plant factor
 - (iii) The leaching requirement
 - (iv) The salinity of the recycled water
 - (v) The plant threshold salinity.
- (M) If the supplier has requested and received approval to include in its objective the budget associated with the variance for water used to sustain wildlife in ponds and lakes pursuant to section 968 (f)(2):
 - (i) The volume of water associated with the variance (V_{wildlife}), calculated pursuant to section 968 (g)(6). This must be calculated and updated annually

- (ii) The area of ponds and lakes, in square feet
 - (iii) Annual precipitation data provided by the Department or annual precipitation data meeting the criteria in section 968 (g)(6)(A).
- (N) If the supplier has requested and received approval to include in its objective the budget associated with the variance for water used to irrigate existing residential trees pursuant to section 968 (f)(2):
 - (i) The volume of water associated with the variance ($V_{R-trees}$), calculated pursuant to section 968 (g)(7). This must be calculated and updated annually
 - (ii) The area of existing residential trees, in square feet.
- (O) If the supplier has requested and received approval to include in its objective a budget associated with the temporary provision for new, climate-ready trees pursuant to section 968 (h)(2):
 - (i) The volume of water associated with the temporary provision (Pr_{trees}), calculated pursuant to section 968 (i)(1). This must be calculated and updated annually
 - (ii) The number of newly planted trees.
- (P) If the supplier has requested and received approval to include in its objective a temporary provision associated with establishing qualifying landscapes pursuant to section 968 (h)(2):
 - (i) The volume of water associated with the temporary provision (Pr_{land}), calculated pursuant to section 968 (i)(2). This must be calculated and updated annually
 - (ii) The square footage of qualifying landscapes receiving temporary irrigation.
- (3) For the budget for commercial, industrial, and institutional landscapes with Dedicated Irrigation Meters described in section 969:
 - (A) The volume of water for CII landscapes with DIMs (CII_{DIM}) calculated pursuant to section 969.
 - (B) Annual reference evapotranspiration and effective precipitation data provided by the Department, or alternative reference evapotranspiration or effective precipitation data meeting the criteria specified in section 969(b)(3).
 - (C) The area of CII landscapes with DIMs measured by the supplier and meeting the criteria specified in section 969(b)(1).
 - (D) Any special landscape area meeting the criteria specified in section 969(c). For CII landscapes with DIMs irrigated with recycled water, the supplier shall, unless otherwise specified, provide information to trace the recycled water network at least once every five years:
 - (i) The Public Water System Identification (PWSID) number associated with each system delivering recycled water to CII landscapes with DIMs
 - (ii) Annual Non-Residential Recycled Water demand, as reported to the Board pursuant to Health and Safety Code section 116530. This must be updated annually.
 - (iii) Annual Non-Residential Non-Potable demand, as reported to the Board pursuant to Health and Safety Code section 116530. This must be updated annually.
 - (iv) The GeoTracker Global Identification Number used for Volumetric Annual Reporting by each facility producing the recycled water
 - (v) The PWSID associated with each system producing the recycled water from each facility identified in (iv)

- (vi) The square footage of CII landscapes with DIMs irrigated with recycled water. If annually reported to a Regional Water Quality Control Board, the value reported pursuant to this section shall be the same value as annually reported to the Regional Water Quality Control Board
- (vii) The Waste Discharge Identification Number (WDID) associated with the land application of recycled water.
- (E) Any CII landscape area with DIMs associated with new construction and meeting the criteria specified section 969(d)(2).
- (F) Any landscape area associated with a DIM that the Department classified as residential and included in the residential landscape area defined in section 968(b)(2), but that the supplier classifies as CII and has therefore subtracted from residential landscape area.
- (G) If the supplier has requested and received approval to include in its objective a budget for the variance for water used to respond to state or local emergency events pursuant to section 969(f)(1), the following information, which must be calculated and updated on an annual basis:
 - (i) The volume of water associated with the variance
 - (ii) The required documentation described in section 968(g)(4).
- (H) If the supplier has requested and received approval to include in its objective a budget associated with the variance to irrigate landscapes with recycled water containing high levels of TDS pursuant to section 969(f)(2) and relied on the calculation method described in 968(g)(5)(A):
 - (i) The volume of water associated with the variance (V_{HTDS}) calculated pursuant to section 968(g)(5)(A). This must be calculated and updated on an annual basis.
 - (ii) The square footage of CII landscapes with DIMs irrigated with recycled water containing high levels of TDS. If reported to a Regional Water Quality Control Board, the value reported pursuant to this section shall be the same value as reported to the Regional Water Quality Control Board.
 - (iii) The concentration of TDS, in mg/L
 - (iv) The Public Water System Identification (PWSID) number associated with each system delivering recycled water containing high levels of TDS to CII landscapes with DIMs
 - (v) Annual metered non-potable non-residential landscape irrigation demand, as reported to the Board pursuant to Health and Safety Code section 116530. This must be updated annually.
 - (vi) The GeoTracker Global Identification Number used for Volumetric Annual Reporting by each facility producing the recycled water containing high levels of TDS
 - (vii) The PWSID associated with each system producing the recycled water from each facility identified in (vi)
 - (viii) The waste discharge identification number (WDID) for the Waste Discharge Requirements associated with the land application of treated recycled water with high levels of TDS
 - (ix) The permitted concentration of TDS, in mg/L
 - (x) The permitted volume of applied recycled water, in gallons
 - (xi) An electronic copy of the applicable salt and nutrient management plan or plans, if any.

- (I) If the supplier has requested and received approval to include in its objective a budget associated with the variance to irrigate landscapes with recycled water containing high levels of TDS pursuant to section 969(f)(2) and relied on the calculation method described in section 968(g)(5)(B):
 - (i) All parameters identified in paragraph (H), except (iii)
 - (ii) The plant factor
 - (iii) The leaching requirement
 - (iv) The salinity of the recycled water
 - (v) The plant threshold salinity
- (J) If the supplier has requested and received approval to include in its objective a budget associated with the variance for water used to sustain wildlife in ponds and lakes pursuant to section 969(f)(3):
 - (i) The volume of water associated with the variance (V_{wildlife}), calculated pursuant to section 968(g)(6). This must be calculated and updated annually.
 - (ii) The area of ponds and lakes, in square feet
 - (iii) Annual precipitation data provided by the Department or annual precipitation data meeting the criteria in section 968(g)(6)(A).
- (K) If the supplier has requested and received approval to include in its objective the budget associated with the variance for water used to irrigate existing trees on CII landscapes with DIMs pursuant to section 969(f)(4):
 - (i) The volume of water associated with the variance ($V_{\text{CII-trees}}$), calculated pursuant to section 969(f)(4). This must be calculated and updated annually
 - (ii) The area of existing trees on CII landscapes with DIMs, in square feet.
- (L) If the supplier has requested and received approval to include in its objective a budget associated with the temporary provision to plant new, climate-ready trees pursuant to section 969(g)(2):
 - (i) The volume of water associated with the temporary provision (Pr_{trees}), calculated pursuant to section 968(i)(1). This must be calculated and updated annually.
 - (ii) The number of newly planted trees.
- (M) If the supplier has requested and received approval to include in its objective a budget associated with the temporary provision for qualifying landscapes pursuant to section 969(g)(2):
 - (i) The volume of water associated with the temporary provision (Pr_{land}) calculated pursuant to section 968(i)(2). This must be calculated and updated annually.
 - (ii) The square footage of qualifying landscapes receiving temporary irrigation.
- (4) For the budget for real water losses described in section 970:
 - (A) The volume of water in gallons per year associated with the real water loss budget ($B_{\text{water loss}}$) calculated pursuant to section 970.
 - (B) For systems with water loss standards expressed in units of gallons per connection per day, the supplier shall report the number of service connections for each system it owns and operates, as reported to the Department pursuant to Water Code section 10608.34.
 - (C) For systems with water loss standards expressed in units of gallons per mile per day, the supplier shall report the length of mains for each system it owns and operates, as reported to the Department pursuant to Water Code section 10608.34.
- (5) For the bonus incentive described in section 971, the following parameters, which, unless otherwise specified, must be calculated and updated on an annual basis:
 - (A)

- (i) The volume of the bonus incentive calculated pursuant to section 971(b) and subject to the limitations described in section 971(a)
 - (ii) Annual total potable water production (T_{PW}) reported to the Board pursuant to Health and Safety Code section 116530
 - (iii) Annual potable water deliveries to single-family residential, multi-family residential, and landscape irrigation (D_{RLI}) reported to the Board pursuant to Health and Safety Code section 116530.
- (B) If a supplier delivers water from a groundwater basin that is augmented by potable reuse water, the following information:
- (i) Volume of potable reuse water obtained from a groundwater source (V_{PRG}) for the reporting year, calculated pursuant to section 971(b)(1)
 - (ii) The annual loss factor for recharge and recovery (LF_G). The supplier shall document that the loss factor was calculated and provided by the appropriate groundwater basin management authority in accordance with section 971(b)(1).
 - (iii) The total volume of potable recycled water recharged into the basin. The total volume of potable recycled water recharged into the basin shall be an annual average, calculated using the values provided to the Board through the Volumetric Annual Report, for the preceding five years, for each facility producing recycled water used to recharge the basin. It shall be confirmed by the appropriate groundwater basin authority.
 - (iv) The GeoTracker Global Identification Number used for Volumetric Annual Reporting by each facility producing recycled water used to recharge the basin. This identifier shall be provided at least once every five years.
 - (v) The total volume of water extracted from the augmented groundwater basin (V_{BP}), to be obtained from the appropriate groundwater basin authority
 - (vi) The Public Water System Identification (PWSID) number associated with each system drawing from the augmented basin
 - (vii) The Primary Station Codes identifying each source drawing from the augmented basin
 - (viii) The volume of water the supplier produces from the augmented basin (V_G) reported to the Board pursuant to Health and Safety Code section 116530
 - (ix) The name of the basin augmented by potable reuse water. This shall be provided at least once every five years.
 - (x) The Bulletin 118 identification number. This shall be provided at least once every five years.
- (C) If a supplier delivers water from a reservoir that is augmented by potable reuse water, the following information:
- (i) The volume of potable reuse water obtained from an augmented surface water reservoir source (V_{PRS}) for the reporting year, calculated pursuant to section 971(b)(2)
 - (ii) The annual loss factor for evaporation and seepage (LF_S). The supplier shall document that the loss factor was calculated and provided by the owner or operator of the augmented surface water reservoir.
 - (iii) The total volume of potable recycled water used to augment the reservoir. The total volume of potable recycled water used to augment the reservoir shall be an annual average, calculated using the values provided to the Board through the Volumetric Annual Report, for the preceding five years, for each facility producing recycled water used to augment the reservoir. It shall be confirmed by the appropriate surface water authority.

- (iv) The GeoTracker Identification Number used for Volumetric Annual Reporting by each facility producing recycled water used to augment the surface water reservoir. This identifier shall be provided at least once every five years.
 - (v) The total volume of water obtained from the augmented reservoir (V_{SWP}), to be obtained from the owner or operator of the augmented surface water reservoir
 - (vi) The Public Water System Identification (PWSID) number associated with each system drawing from the augmented reservoir
 - (vii) The Primary Station Codes identifying each source drawing from the augmented reservoir
 - (viii) The volume of water the supplier produces from the augmented reservoir (V_{SW}), as reported to the Board pursuant to Health and Safety Code section 116530.
- (D) If a supplier delivers water from direct potable reuse (DPR) project, the following information:
- (i) The volume of potable reuse water obtained from the DPR project (V_{PRD})
 - (ii) The volume of finished water produced from the DPR project ($V_{FIN-DPR}$)
 - (iii) The fraction of water the supplier derived from the facility producing the finished water
- (6) The supplier's urban water use objective calculated pursuant to section 966.
- (7)
- (A) If a supplier meets the criteria described in section 966(i), the following:
 - (i) For the reporting year the supplier initially asserts compliance with its objective pursuant to section 966(i), the average median household income of the service area in accordance with section 966(i)(1), based on data from the United States Census Bureau's American Community Survey or an alternative source that the supplier has demonstrated to the Board to be equivalent, or superior, in quality and accuracy.
 - (ii) Average annual per capita water use for the state fiscal years ending in 2024, 2025, and 2026, pursuant to section 966(k)(1).
 - (iii) Annual per capita water use for the reporting year and the immediately preceding two years pursuant to section 966(k)(2).
 - (iv) A link to the plan required pursuant to section 966(i)(3).
 - (B) If a supplier meets the criteria described in section 966(j), the following:
 - (i) Average annual per capita water use for the state fiscal years ending in 2024, 2025, and 2026, pursuant to section 966(k)(1).
 - (ii) Annual per capita water use for the reporting year and the immediately preceding two years pursuant to section 966(k)(2).
 - (iii) Verified adherence to the American Water Works Association G480-20 Water Conservation and Efficiency Program Operation and Management Standard (published February 1, 2021).
 - (iv) A link to the plan required pursuant to section 966(j)(2).
- (c) No later than January 1, 2025, and by January 1 every year thereafter, each urban retail water supplier shall submit to the Department and the Board, on a machine-readable form provided by the Board, the actual urban water use for the previous state fiscal year, calculated in accordance with section 10609.22 along with relevant supporting data for:
- (1) Demands relevant to the objective, specifically:
- (A)
 - (i) Annual deliveries to "Single-Family Residential" connections, as reported to the Board pursuant to Health and Safety Code section 116530

- (ii) Annual deliveries to “Multi-Family Residential” connections, as reported to the Board pursuant to Health and Safety Code section 116530
- (iii) Annual “Residential Recycled Water Demand,” as reported to the Board pursuant to Health and Safety Code section 116530
- (iv) Annual “Residential Non-potable Water Demand,” as reported to the Board pursuant to Health and Safety Code section 116530
- (v) The volume of annual deliveries to single-family residential customers that are at or above the 90th percentile for single-family residential water use across the supplier’s service area
- (vi) The volume of annual deliveries to multi-family residential customers that are at or above the 90th percentile for multi-family residential water use across the supplier’s service area
- (vii) Deliveries to residential landscapes with dedicated irrigation meters, where the supplier classifies those landscapes as residential, and the Department included those landscapes in the supplier’s residential landscape area described in section 968(b)(2)
- (viii) Deliveries to landscapes the supplier categorizes as residential landscapes but were not included in the supplier’s residential landscape area described in section 968(b)(2). The supplier shall report these deliveries separate from paragraph (A)(i) or (A)(ii) until residential landscape area is updated to include these landscapes pursuant to section 968(b)(2) or 968(b)(3).
- (B) Aggregate annual deliveries to “Metered Irrigation of Commercial, Industrial, or Institutional Landscapes,” as reported to the Board pursuant to Health and Safety Code section 116530. This shall be limited to:
 - (i) Potable demand
 - (ii) Non-potable demand
 - (iii) Deliveries to landscapes the Department included in the supplier’s residential landscape area described in section 968(b)(2) but that the supplier categorizes as CII. If this condition is met, the supplier shall correspondingly adjust its residential landscape area pursuant to section 968(b)(2) or (b)(3).
- (C) Aggregated real water losses. If available, the real water losses shall be those reported in the water audits submitted to the Department pursuant to Water Code section 10608.34.
- (D) Total demands relevant to the objective, which shall be the sum of the values reported in paragraphs (A)(i) through (iv), (B)(i) and (B)(ii), and (C).
- (2) Excluded demands, specifically:
 - (A) Aggregate annual water deliveries to “Commercial and Institutional” connections, as reported to the Board pursuant to Health and Safety Code section 116530. This includes deliveries to landscapes the supplier categorizes as commercial or institutional and that are served by mixed-use meters. If the Department included such landscapes in a supplier’s residential landscape area described in section 968(b)(2), then the supplier shall correspondingly adjust its residential landscape area pursuant to section 968(b)(2) or (b)(3).
 - (B) Aggregate annual water deliveries to “Industrial” connections, as reported to the Board pursuant to Health and Safety Code section 116530. The supplier shall additionally estimate the percentage of aggregate annual water deliveries to “Industrial” connections that is process water, as defined by Water Code section 10608.12(y).
 - (C) Aggregate annual water deliveries to “Other” connections, as reported to the Board pursuant to Health and Safety Code section 116530.

- (D) Aggregate annual water deliveries to “Agriculture” connections, as reported to the Board pursuant to Health and Safety Code section 116530.
 - (E) Total aggregate demands excluded from the objective, which shall be the sum of the values reported in paragraphs (A), (B), and (C).
- (d) No later than January 1, 2025, and by January 1 every year thereafter, each urban retail water supplier shall submit to the Department and the Board, for the previous state fiscal year, on a machine-readable form provided by the Board, the following:
- (1) Relevant data pursuant to section 972, specifically:
 - (A) The total number of commercial, industrial, and institutional (CII) connections served, as reported to the Board pursuant to Health and Safety Code section 116530.
 - (B) The total number of CII water users classified pursuant to section 972.
 - (C) The number of CII water users falling into each of the classification categories specified in section 972(a) and section 972(b).
 - (2) Relevant data pursuant to section 973, specifically:
 - (A) For all suppliers:
 - (i) The total number of water users associated with large landscapes
 - (ii) The total estimated, aggregate volume of water applied to large landscapes
 - (iii) The total aggregate square footage of large landscapes.
 - (B) For suppliers that identified water users pursuant to section 973(a)(2):
 - (i) The number of water users associated with those large landscapes
 - (ii) The estimated, aggregate volume of water applied to those large landscapes
 - (iii) The total aggregate square footage of those large landscapes.
 - (C) For suppliers that have installed dedicated irrigation meters (DIMs) pursuant to section 973(b):
 - (i) The number of water users associated with large landscapes that have had a DIM installed
 - (ii) The aggregate square footage of large landscapes that have had a DIM installed.
 - (D) For suppliers that have employed in-lieu technologies and offered Best Management Practices (BMPs) pursuant to section 973(b):
 - (i) The number of water users associated with large landscapes for which the supplier has employed in-lieu technologies and offered BMPs
 - (ii) The aggregate square footage of those large landscapes
 - (iii) The in-lieu technologies that have been employed
 - (iv) If the Board has approved the use of an in-lieu technology other than those listed in section 973(b)(2), a narrative description of the technology employed
 - (v) The BMPs offered pursuant to section 973(b)(3)
 - (vi) The estimated annual water savings associated with section 973(b).
 - (3) Relevant data pursuant to section 974(a) and (b), specifically:
 - (A) The number of disclosable buildings identified pursuant to 974(a).
 - (B) The number of customers for which the supplier has provided the information required pursuant to section 974(b).
 - (4) Relevant data pursuant to section 974(c) through 974(h) in accordance with paragraph (A), (B), or (C) below, as applicable:
 - (A) For suppliers that have identified water users pursuant to 974(c)(1):
 - (i) The number of CII water users at or above the 97.5th percentile for water use
 - (ii) The best management practices (BMPs) offered to the water users identified in paragraph (i)

- (iii) The estimated annual water savings associated with the BMPs identified in paragraph (ii)
 - (iv) The number of CII water users at or above the 80th percentile for CII water use
 - (v) The BMPs offered to the water users identified in paragraph (iv)
 - (vi) The estimated annual water savings associated with the BMPs identified in paragraph (v).
- (B) For suppliers that have identified water users pursuant to 974(c)(2):
 - (i) The number of CII water users at or above the 97.5th percentile for water use
 - (ii) The best management practices offered to the water users identified in paragraph (i)
 - (iii) The estimated annual water savings associated with the BMPs identified in paragraph (ii)
 - (iv) The number of water users at or above the 80th percentile for water use in each of the classification categories specified in section 972(a) and 972(b)
 - (v) The BMPs offered to the water users within each of the classification categories identified in paragraph (iv)
 - (vi) The estimated annual water savings associated with the BMPs identified in paragraph (v).
- (C) For suppliers that have identified water users pursuant to 974(c)(3):
 - (i) The key business activity indicators (KBAI) developed for each of the classification categories specified in section 972(a) and 972(b)
 - (ii) Any KBAI the supplier has developed for specific ENERGY STAR Portfolio Manager property types
 - (iii) For each of the classification categories specified in section 972(a) and (b), the number of water users identified pursuant to section 974(c)(3)
 - (iv) The BMPs offered to the water users within each of the classification categories identified in paragraph (iii)
 - (v) The estimated annual water savings associated with the BMPs identified in paragraph (iv).
- (e) Unless otherwise specified, any volume of water reported pursuant to this section shall be reported in gallons.
- (f) On or before January 1, 2027, a copy of a supplier's regulation, ordinance, or policy governing water service that shows the supplier's compliance with Water Code section 10608.14.

Authority: Sections 1058 and 10609.28, Water Code.

References: Article X, Section 2, California Constitution; Section 116530, Health and Safety Code; Sections 102, 104, 105, 350, 1122, 1123, 1124, 1846, 1846.5, 10608.12, 10608.14, 10608.34, 10609.2, 10609.10, 10609.22, 10609.24, 10728, and 12924 Water Code.

Adopt new section 978:

§ 978. Urban Water Use Objectives – Enforcement

- (a) The failure to provide the information requested under this article within the time provided in the order, or as specified under this article, is a violation subject to civil liability pursuant to Water Code section 1846 or 1846.5.

- (b) A decision or order issued under this article or under Water Code section 10609.24, subdivision (c), section 10609.26, subdivisions (a) or (c), or section 10609.28 is subject to reconsideration under article 2 (commencing with section 1122) of chapter 4 of part 1 of division 2 of the Water Code.
- (c) Orders issued under this article are effective upon issuance.

Authority: Sections 1058, Water Code.

References: Article X, Section 2, California Constitution; Sections 102, 104, 105, 350, 1122, 1123, 1124, 1846, 1846.5, 10609.24, 10609.26, 10609.27, 10609.28, 10617, and 10632, Water Code.

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~~ Article 2. Water Loss Performance Standards for Urban Retail Water Suppliers

...

~~Article 2~~ Article 3. Reporting

...

~~Article 3~~ Article 4. Prevention of Drought Wasteful Water Uses

...

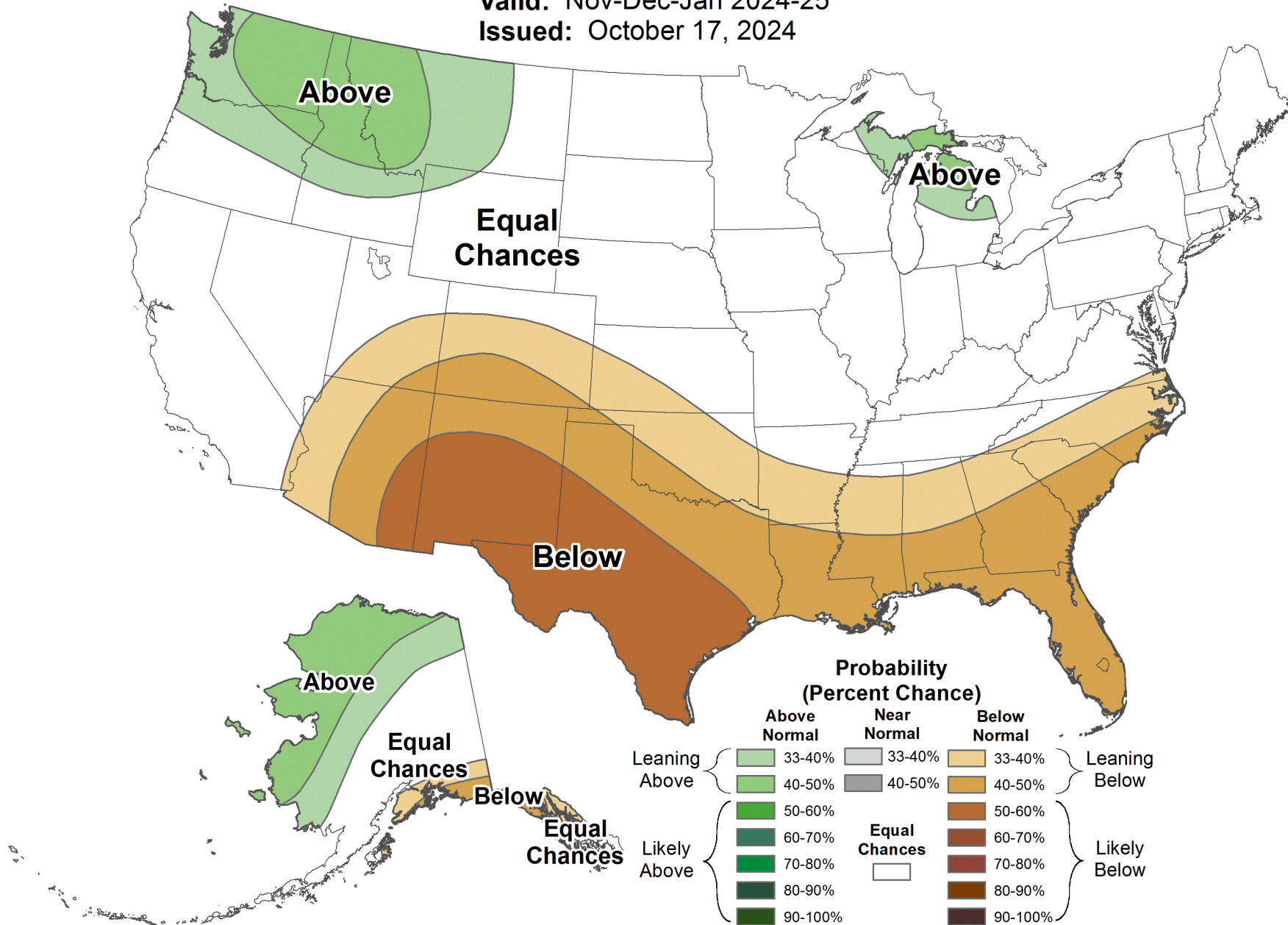


Seasonal Precipitation Outlook



Valid: Nov-Dec-Jan 2024-25

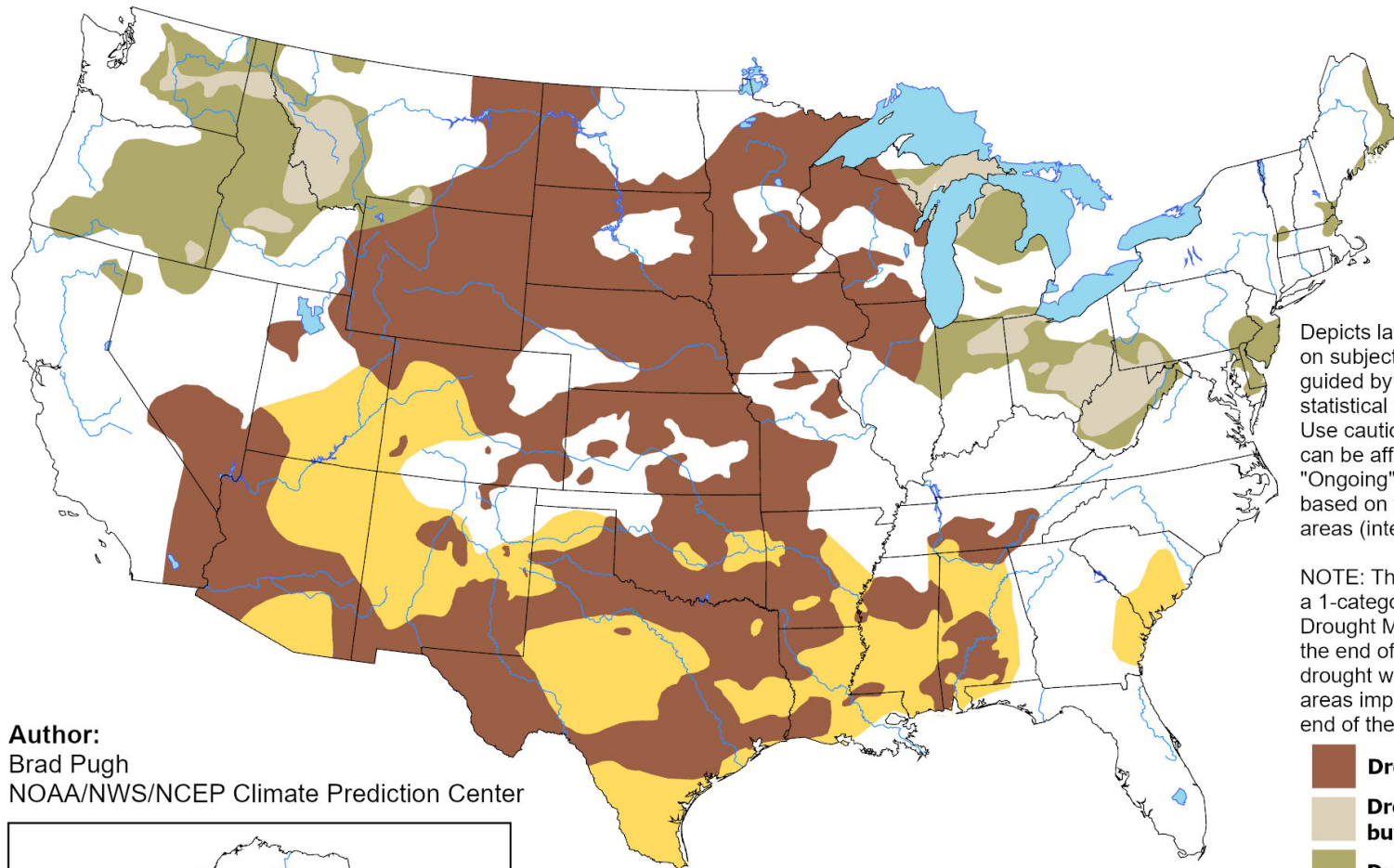
Issued: October 17, 2024



U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

Valid for October 17, 2024 - January 31, 2025
Released October 17, 2024

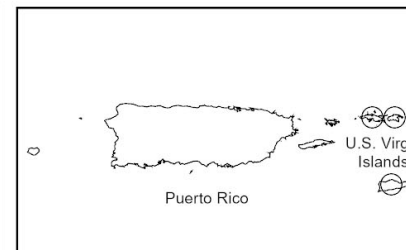
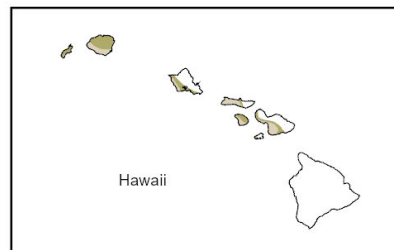


Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to 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:
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<https://go.usa.gov/3eZ73>

Revamp of span nearing key vote

Commission to review Highway 1 bridge plan

BY ADRIAN RODRIGUEZ

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The California Department of Transportation has completed the final design of a long-planned project to replace the Lagunitas Creek Bridge in West Marin.

The 95-year-old crossing on Highway 1 serves as the gateway to Point Reyes Station. The bridge, which is also known as “the green bridge,” crosses the creek just north of the Sir Francis Drake Boulevard turn toward Inverness and the coast.

About 35 residents attended a recent meeting at the Dance Palace in Point Reyes Station to learn more about the project. Caltrans is now taking its plans to the California Coastal Commission for permit approval.

“The bridge is not seismically fit, and retrofit is not an option because of its age,” said Matt O’Donnell, a Caltrans spokesperson. “It will be a complete teardown and rebuild. It will be much safer, and ADA-compliant once it’s finished.” ADA is the Americans with Disabilities Act. The bridge was built in 1929 and sits near the San Andreas Fault. About 15 years ago, Caltrans determined the bridge does not meet safety and seismic design standards, requiring a replacement.

In 2018, the bridge replacement was estimated to cost \$5.8 million.

That year, a group called Friends of the Green Bridge filed a lawsuit alleging that the project violated the California Environmental Quality Act. The lawsuit said the state’s final environmental impact report should have included retrofitting as an option.

The lawsuit landed before Judge Andrew Sweet in Marin County Superior Court. In 2021, he ruled in favor of Caltrans.

The plaintiffs appealed to the 1st District Court of Appeal in San Francisco. In 2023, a three-judge appellate panel affirmed the earlier decision by Sweet.

The bridge project is now estimated to cost \$21 million.

The travel lanes would remain at 11 feet wide, but 5-foot shoulders will be added to accommodate bicycle lanes in each direction.

The project also would include a sidewalk across the bridge, new curbs, new curb ramps and a highly visible crosswalk at the Sir Francis Drake Boulevard intersection.

A culvert north of the bridge would be lengthened to match the new bridge width.

To recognize the former bridge, metal portions will be painted a similar green.

Caltrans is planning for construction in the summer of 2026, O'Donnell said.

Caltrans will need to mitigate the environmental impacts of the construction by restoring all disturbed areas with hydroseed and native plant species, O'Donnell said.

Caltrans staff also is working with the county and local business owners to address the effects of a planned 21-day bridge closure.

Business owners worried that a full closure at the height of summer tourism would be detrimental to their livelihoods. With that in mind, Caltrans plans to conduct the closure after Labor Day weekend, O'Donnell said.

Point Reyes-Petaluma Road would be the main detour route for both northbound and southbound traffic. Caltrans plans to have a shuttle service available for bicyclists and pedestrians during the full closure.

"The county has supported this Caltrans project since its inception, as it will enhance the functionality and resilience of West Marin's infrastructure," said Christopher Blunk, assistant director of Marin County Department of Public Works. "Replacing the nearly 100-year-old bridge is critical to the long-term continuity of access for the residents of West Marin."

Blunk said that while the county is not leading the project, staff want to assist Caltrans in determining how to minimize disruptions to the community during the construction.

Marin County Supervisor Dennis Rodoni, whose district includes the area, said Caltrans landed on a good project and he'll be keeping an eye on how it progresses.

"Fortunately, these are such long-lead projects that we have plenty of time to figure out the wrinkles and address them," Rodoni said.

The project is expected to be presented to the California Coastal Commission during its November session. The commission is meeting Nov. 13 through 15. A date for the hearing is pending.

Tribe celebrates land acquisition on Marin coast

BY ANNA ARMSTRONG

THE PRESS DEMOCRAT

Against the backdrop of sweeping ocean views and rugged cliffs, the Federated Indians of Graton Rancheria, in partnership with Western Rivers Conservancy, celebrated the reclamation of 466 acres of Marin County coastline on Thursday.

The property, which stretches across Dillon Beach Ranch and includes the Estero de San Antonio, is now under permanent conservation and stewardship of the Graton Rancheria, a federation of Coast Miwok and Southern Pomo groups.

The land acquisition and transfer process began nearly a year ago.

Western Rivers Conservancy purchased the land from Saint Anthony Monastery in December, using money from the Gordon and Betty Moore Foundation. The conservancy then worked with Graton Rancheria to secure additional funding from the Department of Fish and Wildlife, allowing the tribe to purchase the land.

The headlands, ocean and estero at Dillon Beach are home to several critically endangered species, including the Myrtle's silverspot butterfly — found in just four places in the Bay Area — and a fish species known as the northern tidewater goby.

“The landscape was always a sacred text for us,” said Greg Sarris, chair of the Federated Indians of Graton Rancheria. “It’s how we knew ourselves, and when the Europeans came, much of the landscape, our sacred text, was destroyed. Now, we have the opportunity to once again create that text and write that text for ourselves and for others.”

The day kicked off with a tour and remarks from Sarris and the conservancy’s interim president, Nelson Matthews.

Attendees had the option to hike down to the estero, a habitat rich with plants and wildlife.

Local leaders, tribal members, conservancy representatives and local and state politicians then gathered at Tomales Town Hall to commemorate the occasion, sharing food, hearing a blessing and watching a screening of a Dillon Beach video.

Lt. Gov. Eleni Kounalakis spoke about the importance of returning the land to its original stewards.

“Having people like you who are so dedicated to conserving the richest, most biologically valuable and diverse lands of our state is so important,” Kounalakis said.

After saying the words “land back” in the oral tradition, Kounalakis offered her congratulations to tribal elders.

“I can’t imagine the trajectory of what you have seen in your lifetime to bring us to this moment,” she added. “Congratulations.”

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