NORTH MARIN WATER DISTRICT

**NORTH MARIN WATER DISTRICT**
AGENDA - REGULAR MEETING
September 7, 2021 – 6:00 p.m.
Location: Virtual Meeting
Novato, California

Information about and copies of supporting materials on agenda items are available for public review at 999 Rush Creek Place, Novato, at the Reception Desk, or by calling the District Secretary at (415) 897-4133. A fee may be charged for copies. District facilities and meetings comply with the Americans with Disabilities Act. If special accommodations are needed, please contact the District Secretary as soon as possible, but at least two days prior to the meeting.

## ATTENTION: This will be a virtual meeting of the Board of Directors pursuant to Executive Order N-29-20 issued by the Governor of the State of California.

There will not be a public location for participating in this meeting, but any interested member of the public can participate telephonically by utilizing the dial-in information printed on this agenda.

### Video Zoom Method

**CLICK ON LINK BELOW:**

Go to: https://us02web.zoom.us/j/82191971947

Password: 466521

**OR**

**SIGN IN TO ZOOM:**

Meeting ID: 821 9197 1947

Password: 466521

### Call in Method:

Dial:
+1 669 900 9128
+1 253 215 8782
+1 346 248 7799
+1 301 715 8592
+1 312 626 6799
+1 646 558 8656

Meeting ID: 821 9197 1947#

Participant ID: #

Password: 466521#

For clarity of discussion, the Public is requested to MUTE except:
1. During Open Time for public expression item.
2. Public comment period on agenda items.

*Please note: In the event of technical difficulties during the meeting, the District Secretary will adjourn the meeting and the remainder of the agenda will be rescheduled for a future special meeting which shall be open to the public and noticed pursuant to the Brown Act.*

| Est. Time | Item | Subject |
|---|---|---|
| **6:00 p.m.** | | ***CALL TO ORDER*** |
| | 1. | ***APPROVE MINUTES FROM REGULAR MEETING***, August 17, 2021 |
| | 2. | ***APPROVE MINUTES FROM SPECIAL MEETING***, August 30, 2021 |
| | 3. | ***GENERAL MANAGER'S REPORT*** |
| | 4. | ***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.

5. ***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.

6. ***Consent – Approve:*** Gallagher Well No. 2 Construction – DWR Grant Application Resolution
7. ***Consent – Approve:*** Contract Amendment for Consulting Services – Rauch Communications Consultants

***ACTION CALENDAR***

8. ***Approve:*** NMWD Headquarters Upgrade Project CEQA Notice of Exemption (NOE)
9. ***Approve:*** NMWD Headquarters Upgrade Decision Milestones
10. ***Approve:*** Frey & Laureta, Inc. Consultant Services Agreement for Hydropneumatic Stations Engineering and Design Services
11. ***Accept:*** Stafford Lake 2021 Watershed Sanitary Survey
12. ***Approve:*** ACWA Region 1 Board Election (2022-2023)

***INFORMATION ITEMS***

13. FY 2020/21 Fourth Quarter Progress Report -Water Quality
14. FY 2020/21 Fourth Quarter Progress Report – Water Conservation
15. FY 2020/21 Fourth Quarter Progress Report -Engineering Department
16. FY 2020/21 Fourth Quarter Progress Report -Operations/Maintenance
17. Water Supply Communications Plan
18. NBWRA Update – July 26, 2021
19. ***MISCELLANEOUS***

Disbursements – Dated August 19, 2021
Disbursements – Dated August 26, 2021
Disbursements – Dated September 2, 2021
Point Reyes Light – Salinity Notice August 12, 2021
Point Reyes Light – Salinity Notice August 19, 2021
Point Reyes Light – Salinity Notice August 26, 2021
Point Reyes Light – Salinity Notice September 2, 2021

| Est. Time | Item | Subject |
|---|---|---|
| | | Drought Drop By – August 21, 2021<br>Security of Funds Invested in LAIF<br><br>News Articles:<br>Marin IJ – Critics: Tighten water policies – DROUGHT<br>Bloomberg – Chlorine Shortage Spurs Unprecedented Requests for EPA Help (1)<br>Marin IJ – Appeal filed on plan to dig well – NORTH MARIN WATER DISTRICT<br>Marin IJ – Marin Voice – Work together as 'One Marin Water' to survive droughts<br>Point Reyes Light – Letters – Readying for more drought<br>The Hill – Amid worsening drought crisis, lawmakers push Biden to issue disaster declaration<br>Marin IJ – Key votes near for Marin emergency water pipeline – DROUGHT RESPONSE<br>Marin IJ – Recycled water available for residents to pick up -MARIN WATER DISTRICTS<br>Marin IJ – Marin County Drought Tracker<br>Marin IJ – Monthly billing ditched as idea for saving water – MMWD<br>Marin IJ – Marin Voice – Charting a drought-resilient path forward in Marin<br>Point Reyes Light – Water districts move ration plans forward<br>Marin IJ – Pipeline design funding allotted – MMWD<br>Marin IJ – Endangered fish a drought victim? |
| **8:00 p.m.** | 20. | ***ADJOURNMENT*** |

# 1

**DRAFT**
**NORTH MARIN WATER DISTRICT**
MINUTES OF REGULAR MEETING
OF THE BOARD OF DIRECTORS
August 17, 2021

***CALL TO ORDER***

President Grossi announced that due to the Coronavirus outbreak and pursuant to Executive Order N-29-20 issued by the Governor of the State of California this was a virtual meeting. President Grossi called the regular meeting of the Board of Directors of North Marin Water District to order at 6:01 p.m. and the agenda was accepted as presented. President Grossi added that there was not a public location for participating in this meeting, but any interested members of the public could participate remotely by utilizing the video or phone conference dial-in method using information printed on the agenda.

President Grossi announced in the event of technical difficulties during the meeting, the District Secretary will adjourn the meeting and the remainder of the agenda will be rescheduled for a future special meeting which shall be open to the public and noticed pursuant to the Brown Act.

President Grossi welcomed the public to participate in the remote meeting and asked that they mute themselves, except during open time and while making comments on the agenda items. President Grossi noted that due to the virtual nature of the meeting he will request a roll call of the Directors. A roll call was done, those in remote attendance established a quorum. Participating remotely were Directors Jack Baker, Rick Fraites, Jim Grossi, Michael Joly and Stephen Petterle.

President Grossi announced all public attendees will be invited to speak and will need to use the raised hand icon in Zoom or dial *9 to be called upon.

Mr. McIntyre performed a roll call of staff, participating remotely were Drew McIntyre (General Manager), Tony Williams (Assistant GM/Chief Engineer), Terrie Kehoe (District Secretary), Robert Clark (Operations/Maintenance Superintendent), Tony Arendell (Construction/Maintenance Superintendent) and Nancy Holton (Accounting Supervisor). Also participating remotely were Scott Salge, James Gwise and Ursula Currie (Noll and Tam Architects), Carl Nelson District legal counsel (BPMNJ), and IT consultants Kevin Cozart and Clay Smedshammer (Core Utilities).

President Grossi announced for those joining the virtual meeting from the public to identify themselves. Participating remotely were Ken Levin (Point Reyes Station Village Association), Doug Kelly (Coalition of Sensible Taxpayers), Will Houston (Marin IJ), and residents Chris

DeGabriele, Al Dugan and Gary Levin.

***MINUTES***

Director Joly noted that on Line 50 of the minutes the date needed to be changed to August 3, 2021. On motion of Director Petterle seconded by Director Joly the Board approved minutes from the August 3, 2021 Regular Board Meeting by the following vote:

AYES: Director Baker, Fraites, Grossi, Joly and Petterle

NOES: None

ABSTAIN: None

ABSENT: None

***GENERAL MANAGER'S REPORT***

Closed Session

Mr. McIntyre reported that agenda Item #12, Closed Session, is no longer needed.

West Marin Salinity Update

Mr. McIntyre informed the Board that the sodium level for last week was below 50 mg/L and this week it was also below 50 mg/L. Mr. McIntyre noted staff will continue to monitor the salinity levels and publish the numbers in the Point Reyes Light.

Dillion Beach Village Wastewater Study

Mr. McIntyre apprised the Board that he will be attending a meeting with Supervisor Rodoni on September 17th at 5:00 p.m. to hear a report on the wastewater treatment options for the Dillon Beach Village area. He stated he will ask Mr. Williams to also attend and will report back to the Board with an update.

Drought Drop By

Mr. McIntyre reported the second Drought Drop By event will be Saturday August, 21st from 8:00 a.m. to noon at the District office. He stated the first event was well attended and they had around 500 buckets to give away, which proved to be not enough. Mr. McIntyre noted for this event staff have 1,500 buckets which should be ample supply. Additionally, he noted there was a recent ad in the Marin IJ advertising the event, as well as several social media posts.

Tentative Special Meeting

Mr. McIntyre reported he is tentatively planning a Special Meeting in late August. At this time the preferred date and time is August 31st at 6:00 p.m.

Acting General Manager

Mr. McIntyre informed the Board that Tony Williams and Julie Blue will be tag teaming as acting General Manger when he is out of the office from September 1st through 10th. He noted he will still attend the September 7th Board meeting in addition to other virtual meetings during this period.

***OPEN TIME***

President Grossi asked if anyone from the public wished to bring up an item not on the agenda and the following were discussed.

Gary Levin thanked the Board for allowing him to express his thoughts. He stated he is attending the meeting to address his concerns about the drought and wanted to promote the idea of desalination. He added the Board needs to think big and not be afraid to consider desalination as an option. Mr. Levin asked the Board to accept the signs of climate change and understand we do not have enough water supply reserves, noting we need to create water for our basic needs. He added we cannot continue to only look at conservation, but need to look at a long-term supply options such as desalination. Mr. Levin stated we have new technology available and we need more than just the bare bones amount of water, but enough to continue with our current lifestyle. He asked the Board to not allow false and political analysis to sway them. Mr. Levin stated even drought tolerant plants could die, and the cost of them dying could be expensive, we need to create enough water to sell to other agencies, enough for our neighbors to save their landscape. Mr. Levin noted we can learn from other countries how they deal with the desalination brine and talk to Marin biologists. He added the District needs to create enough water to maintain a robust lifestyle in Novato, noting he does not want our city to be another statistic and another city that is drying up.

Director Grossi noted the District is currently in the process with Sonoma County Water Agency on a Resiliency Study to look at all the potential sources of water supply in the future. He added NMWD is also doing a study of their own. Director Grossi noted Mr. Levin's points were well taken. He added initial information from the Resiliency Study should be available late October.

Al Dugan emphasized anything that can be done before the next season would be in everyone's best interest. Mr. Dugan added the time lag does not make sense especially since we may have another dry season. He asked if any District staff has gone to San Diego and talked with their water board, as they are doing the right thing and have no water restrictions at all right now. Mr. Dugan added they have been working in water supply for several years, and NMWD should learn what they can from them. Additionally, Mr. Dugan stated he heard that 95% of water

in California goes to agriculture and he wondered if that number was correct. Director Grossi replied the number is closer to 80%.

Director Joly thanked Mr. Levin for attending the Board meeting as a concerned citizen and added it was good to hear his input.

***STAFF/DIRECTORS REPORTS***

President Grossi asked if any Directors or staff wished to bring up an item not on the agenda and the following were discussed.

Mr. Clark apprised the Board about the chemical availably to the Stafford Treatment Plant over the past month. He stated staff has paid close attention to the ferric chloride and chlorine gas supply. Mr. Clark noted staff tested ferric sulfate with some success and tested on a large scale this afternoon, which resulted in clear water, but there is still some fine tuning to do. Mr. Clark reported MMWD has been successful using this alternate coagulant.

Mr. Clark reported that PG&E sent out recent Public Safety Power Shut-off (PSPS) warnings, however they have not affected Marin county at this time, only north and east of Sonoma County. He added the PSPS in Sonoma County will not affect our water supply from Sonoma County Water Agency. Mr. Clark stated PG&E has done a great job notifying the District of PSPS and the District is prepared with generators and trained staff should the need arise.

Director Petterle announced last week in the Marin IJ and also in this agenda packet was an obituary that former NMWD Chief Engineer and Board of Director Jim Fritz passed away. Director Petterle requested at the time the meeting is adjourned, it to be in memory of Mr. Fritz.

***MONTHLY PROGRESS REPORT***

The Monthly Progress Report for July was reviewed. Mr. McIntyre reported that water production in Novato was down 17% from one year ago. In West Marin, water production was down 26% from one year ago. Recycled Water production was up 10% from one year ago. Stafford Treatment Plant production was down 37% from the last fiscal year. The Board was apprised that Stafford Lake is at 39% capacity, Lake Sonoma is at 50% and Lake Mendocino is at 31% capacity. In Oceana Marin the effluent flow volume this July is similar to one year ago. Under Safety and Liability, we had 1 day without a lost time injury. On the Summary of Complaints and Service Orders, the Board was apprised that total numbers are up 5% from July one year ago and there were no unusual trends in complaints and service orders for the month. Mr. McIntyre noted Section 10 was added to the Monthly Progress Report to provide a summary of COVID costs. Mr. McIntyre informed the Board that Ms. Blue is currently working with the State and County of Marin in an effort to obtain available funding to help pay for these outstanding water bills.

Nancy Holton reported on the July 2021 Investments, where the District's portfolio holds $24.3M earning a 0.36% average rate of return. Ms. Holton stated that during July the cash balance decreased by $257,915. She also noted the LAIF rate is 0.22%. Ms. Holton added one CD matured earning $14,000 in interest with an interest rate of 2.5%. She reported staff is trying to diversify more but CDs are earning very low rates unless you go out five years and our policy is three years maximum. Director Joly stated he was glad that staff is looking into this.

***PRELIMINARY FY 2020/2021 FINANCIAL STATEMENT***

The Preliminary FY Financial Statement for Fiscal Year 2020-2021 was presented by Ms. Holton. She reviewed the Novato, West Marin, Oceana Marin, and Recycled Water budgets and net income revenue. The District generated a net income of $1,081,242 and noted at year end the ratio of total cash to budgeted annual operating expense stood at 138%. Ms. Holton reminded the Board that this is a preliminary financial statement and the totals will change when the annual audit is complete. The audit will be conducted in late August and this year fieldwork will be done by the auditors remotely. She noted operating revenue was at 112% of budget, Operating expenses came in at 111% due to the backfeeding of Stafford Lake. Ms. Holton stated that the revenue for water sales may be adjusted once the financial statements are finalized. She added the year end preliminary report is more of a moving target than the quarterly update they are provided throughout the year. Ms. Holton noted a summary of each section and CIP will be updated in a couple of months when the final audited financials are received.

Director Joly asked why the recycled water operating cost of 47% was so high. Mr. McIntyre replied it is driven by the cost to purchase recycled water, and since we are doing a better job of promoting recycled water he would imagine that would be a factor. Director Joly stated he will refer some of his question to Ms. Blue at a later time. Director Joly asked with $3.5M in connection fees, how will that change going forward and do we have a budget number for 2022. Ms. Holton replied our budget numbers are always conservative. Mr. McIntyre noted the number Director Joly is looking for is in the new budget. Ms. Holton stated so far, the District has collected $558,000 for 22 connections for Fiscal Year 2022. Director Joly noted that was a good number, but wondered how future connections will be affected by the economy. Mr. McIntyre replied, that is why staff is conservative on the projection of connection fees, the number is hard to estimate and it depends on how many developers come through. He added we do not want to have an overly optimistic estimate, because it is something the District has no control of.

***INFORMATION ITEMS***

***NMWD HEADQUARTERS UPGRADE DESIGN DEVELOPMENT OVERVIEW AND COST***

Mr. Williams updated the Board on the NMWD headquarters upgrade design. Mr. Williams reported the next phase of the Project is the development of construction documents, plans, technical specifications, bidding documents, submission of a building permit, and environmental review. Additionally, Noll and Tam Architects (N&T) provided a short presentation of the current design elements.

After the presentation a discussion ensued. Director Petterle commented on the temporary alternative office location, and stated he thought that was a great way to save money and he strongly supports it. He also acknowledged the accessibility issue he brought up at the last meeting to make sure those who are disabled arrive at the same entry place, seems to have been resolved. Director Petterle stated he lived with a disabled child for thirty-four years, and he appreciated the accommodation and encouraged the architects to continue on that vein. Additionally, he noted in regards to landscape, he worked with MMWD in the past and has experience in this area, noting hardscape will take less water than plants. Direction Petterle also noticed there was one disabled access space for the public and two for staff. He wondered if it would be more appropriate if there were two for the public who are attending the meetings and one for staff, noting there is more likelihood that a member from the public is disabled than staff. Mr. Salge replied they can look at the parking spaces and can accommodate Director Petterle's request. He noted another option would be during meetings, additional access could be provided for those spaces.

Director Fraites stated he is hoping in the future the District will have more electric vehicles and perhaps we need one or two more charging stations for trucks. Mr. Clark replied he reached out to Marin Clean Energy, and he has an application in for seven or eight charging stations to be located in the back yard for District vehicles.

Director Joly stated he was concerned about the money involved in the project and the concern about future water supply. He emphasized that he needs to feel comfortable as a fiduciary Director, to know where we are with a secure water supply especially if we have another dry year. Director Joly added lower water sales and lower availability with the foreseeable supply will cost the District money. He noted the main responsibility is water supply, understanding that the circumstances are different now than they were when staff first started looking at the building renovation. Director Joly stated we need to look at the debt ratio and the restriction on reserves, adding the money to create a dependable supply for customers is more important than the building. Director Petterle stated he did not disagree with Director Joly. He added we do need to provide ample water for our customers and this does come at a cost, yet at the same time we have an illegal building that needs to be accessible to the public. He noted there is a cost to

create a legal access, and provide a functional building versus the current one that was built in the 1960's. Director Petterle agreed consideration of future supply cannot be ignored and suggested we proceed in a tandem so we can figure out a solution. Director Petterle also commended Director Joly for his financial background and assistance to the Board. Director Grossi stated he felt the District has no choice but to do both. He noted water supply is longer term, we have to look at the deferred maintenance and the cost of the building to bring it up to standards in addition to meeting the lab requirements from the state. Director Grossi also complemented Noll and Tam and staff for looking at ways to bring down cost. Director Fraites stated everyone made valid points and expressed he would also like to go forward with the plan until the second or third month into winter so the District knows what they are facing in regards to water supply. He added, in a crunch the money should go towards water not renovation of the building, but feels we can do both at the same time until then. Director Joly stated there has been great comments from the Directors. He noted when looking at the schedule we would possibly go to bid in February, by that time we will know what our winter looks like. He added the fact that they are predicting La Nina is disturbing, however he does not oppose to a dual path at this time.

Director Grossi noted there is a lot of work to do to figure out all our options. Director Grossi asked if we do start the renovation in February and it is raining, where would the lay down area be for the contractors. Mr. Williams replied the beauty of not having onsite trailers, is it allows space to use the staff parking area for laydown. Additionally, the construction crew can use the southern entrance which is now used for public and staff parking.

Mr. McIntyre reminded the Board that there are policies in place for maintaining reasonable debt ratios.

President Grossi thanked Noll and Tam for their presentation and asked if anyone from the public wished to speak.

Doug Kelly from the Coalition of Sensible Taxpayers (COST) stated he was concerned with the cost. He requested Mr. McIntyre give him a tour of the current building. Mr. McIntyre replied he would be happy to do so.

***STP SOLAR POWER FACILITY – STATUS REPORT (FISCAL YEAR 2018/19 – 2020-21)***

Mr. Clark reported on the status of the Stafford Treatment Plant Solar Power Facility. He noted the annual production and energy savings based on the net metering year for Fiscal Year 2018/19, Fiscal Year 2019/20 and Fiscal Year 2020/21. Mr. Clark stated the operation of the solar facility resulted in a new power savings of the difference been the weighted average daily PG&E rates and the cost of the solar production and additional savings was realized for excess energy sold to Marin Clean Energy.

Director Grossi asked if there was ever any damage to the solar panels from golf balls that come from Indian Valley Golf Course. Mr. Clark replied no damage at this time.

President Grossi asked if there were any comments from the public and there was no response.

***GALLAGHER WELL NO. 2 – COASTAL PERMIT APPEAL TO CALIFORNIA COASTAL COMMISSION***

Mr. McIntyre reminded the Board that the Marin County Board of Supervisors (BOS) held a public hearing during their regularly scheduled BOS meeting on July 13th and the final action at the meeting was to unanimously vote to approve the Coastal Permit. He stated on July 28th the California Coastal Commission (Commission) staff member sent an email informing the District that a timely appeal was submitted by Save Our Seashore (SOS). He added October 12th is the tentative date for this Commission meeting.

Mr. McIntyre reviewed the two-step appeal process that is utilized by the Commission when considering appeals. He stated the estimated time for completing both steps through the Coastal Commission is approximately six months.

President Grossi asked if Directors had any questions and there was no response. Additionally, he asked if any of the public would like to comment. Ken Levin from the Point Reyes Village Association stated he has been tracking this issue for quite some time and is still tracking it. He noted he is willing to be present at the Coastal Commission Hearing if that is an appropriate action and depending on the issues raised. Mr. Levin stated he will continue contact with Mr. McIntyre to stay informed of the status of the appeal. Director Grossi thanked Mr. Levin for his continued support.

Director Joly asked if at the October 12th meeting it is found that there are no substantial reasons to deny approval of the permit, how would that play out, could the District receive the permit in October. Mr. McIntyre replied the District currently has the permit from the County of Marin, however it has been suspended due to the appeal. He added if the California Coastal Commission determines there is not a substantial issue, then NMWD can move forward with the project. Director Joly asked at what point does rain or weather issues affect the construction of the well. Mr. McIntyre replied if we have the permit in October, he would envision we could go to bid this winter, construct the well in early spring and be operational when we need it in late spring or early summer.

***TAC MEETING UPDATE – JULY 12, 2021***

Mr. McIntyre provided the minutes for the Technical Advisory Committee meeting held on July 12, 2021.

Mr. McIntyre reported on various meeting items including the Regional Water Supply Resiliency Study Update. Director Grossi asked in reference to ground water storage, are they looking at the Sonoma Valley. Mr. McIntyre replied yes. Director Joly stated it was good to see Jacobs accelerate their work production for this fall. Director Joly asked if some of the Agency's groundwater wells will be ready to go before this year's rainfall. Mr. McIntyre replied yes.

***MISCELLANEOUS***

The Board received the following miscellaneous items: Disbursements – Dated August 5, 2021, Disbursements – Dated August 12, 2021, SWRCB 20% Mandatory Reductions in Russian River Diversions – Tracking Status (July 1 – August 5), Summer 2021 Drought Mailer, Point Reyes Light – Salinity Notice August 5, 2021 and James D. "Jim" Fritz – Obituary and Jim Fritz leaves NMWD.

The Board received the following news articles: Marin IJ - Marin county drought tracker; Marin IJ – 1,081-home plan draws concern – NOVATO; Marin IJ – Marin Voice – Supervisor touts conservation, growth amid water shortage; Marin IJ – Utilities consider rationing of water – WEST MARIN; Marin IJ – Landscaping restrictions eyed for new developments – MARIN MUNICIPAL; Marin IJ – Strict watering rules approved for West Marin – DROUGHT CONCERNS; Marin IJ – Desalination option shelved; focus now on bridge pipeline –MARIN MUNICIPAL; Marin IJ – Opinion -Voters have role in Marin Municipal Water District shortage; Marin IJ – Marin Voice – Water district board VP makes case for bridge pipeline and Marin IJ – Editorial – Find ways to increase Marin water supply.

The Board received the following social media posts: NMWD Web and Social Media Report – July 2021.

Mr. McIntyre stated staff is tracking the status of the water contractors and so far, there has been a reduction of 24%, meeting the target of 20%. He noted this a good trend.

Mr. McIntyre announced the copy of the summer drought mailer will go out to the Novato customers the week of August 23rd and a similar mailer will go out to our West Marin customer shortly after.

Director Joly commented it is great to see how many people are accessing the web site, noting the number has doubled.

***CLOSED SESSION***

President Grossi noted since the Closed Session has been cancelled he will adjourn the meeting. He added by request of Director Petterle the meeting will be adjourned in memory of Jim Fritz, former Chief Engineer and NMWD Board of Director.

On motion of Director Petterle seconded by Director Fraites the Board approved adjourning the meeting in memory of Jim Fritz by the following vote:

AYES: Director Baker, Fraites, Grossi, Joly and Petterle

NOES: None

ABSTAIN: None

ABSENT: None

***ADJOURNMENT***

President Grossi adjourned the meeting at 8:00 p.m.

Submitted by

Theresa Kehoe
District Secretary

# 2

**DRAFT**
**NORTH MARIN WATER DISTRICT**
MINUTES OF SPECIAL MEETING
OF THE BOARD OF DIRECTORS
August 30, 2021

***CALL TO ORDER***

President Grossi announced that due to the Coronavirus outbreak and pursuant to Executive Order N-29-20 issued by the Governor of the State of California this was a virtual meeting. President Grossi called the special meeting of the Board of Directors of North Marin Water District to order at 6:02 p.m. and the agenda was accepted as presented. President Grossi added that there was not a public location for participating in this meeting, but any interested members of the public could participate remotely by utilizing the video or phone conference dial-in method using information printed on the agenda.

President Grossi announced in the event of technical difficulties during the meeting, the District Secretary will adjourn the meeting and the remainder of the agenda will be rescheduled for a future special meeting which shall be open to the public and noticed pursuant to the Brown Act.

President Grossi welcomed the public to participate in the remote meeting and asked that they mute themselves, except during open time and while making comments on the agenda items. President Grossi noted that due to the virtual nature of the meeting he will request a roll call of the Directors. A roll call was done, those in remote attendance established a quorum. Participating remotely were Directors Jack Baker, Rick Fraites, Jim Grossi, Michael Joly and Stephen Petterle.

President Grossi announced all public attendees will be invited to speak and will need to use the raised hand icon in Zoom or dial *9 to be called upon.

Mr. McIntyre performed a roll call of staff, participating remotely were Drew McIntyre (General Manager), Tony Williams (Assistant GM/Chief Engineer) and Terrie Kehoe (District Secretary). Also participating remotely was Morgan Biggerstaff, District legal counsel (BPMNJ).

President Grossi announced for those joining the virtual meeting from the public to identify themselves and there was no response.

On motion of Director Joly seconded by Director Baker the Board accepted the Special Meeting agenda for August 30, 2021 by the following vote:

AYES: Director Baker, Fraites, Grossi, Joly and Petterle
NOES: None
ABSTAIN: None
ABSENT: None

***OPEN TIME***

President Grossi asked if anyone in the audience or staff wished to bring up an item and there was no response.

***CLOSED SESSION***

President Grossi adjourned the Board into closed session at 6:06 p.m. in accordance with (1) California Government Code Section 54956.9(d)(2) One Potential Case Conference with Legal Counsel –Significant Exposure to Litigation; and (2) Conference with Real Property Negotiator – as authorized pursuant to Government Code Section 54956.8: Property: 119-050-17; Agency Negotiator: General Manager; AGM/Chief Engineer Negotiating Party: Gallagher Family, LLC; Under Negotiation: Price.

***OPEN SESSION***

Upon returning to the regular session at 7:03 p.m., President Grossi announced the Board had not taken any reportable action during closed session.

***ADJOURNMENT***

President Joly adjourned the meeting at 7:03 p.m.

Submitted by

Theresa Kehoe
District Secretary

# 3

# 4

# 5

# 6

**MEMORANDUM**

To: Board of Directors September 3, 2021

From: Tony Williams, Assistant General Manager/Chief Engineer

Subj: Gallagher Well No. 2 Construction – DWR Grant Application
R:\Folders by Job No\6000 jobs\6609.20 New Gallagher Well #2\BOD Memos\September 7 2021\6609.20 Gall Well 2 DWR Grant.doc

**RECOMMENDED ACTION:** That the Board Authorize the Grant Application, Acceptance and Execution for the California Department of Water Resources Small Community Drought Relief Program

**FINANCIAL IMPACT:** None at this time ($631,000 in approved FY22 Budget)

Background

The Gallagher Well No. 2 Project includes construction of a new approximately 60-foot deep well, including a submersible pump assembly and associated electrical systems, as well as approximately 400 feet of 6-inch diameter pipeline to connect the new well to the existing Gallagher Well 12-inch transmission pipeline. The project site, located to the north of the existing Gallagher Well No. 1 site at the Gallagher family ranch, is within the Coastal Zone and therefore subject to the policies of the Marin County Local Coastal Program (LCP). The District submitted an LCP permit application to the Marin County Community Development Agency (CDA) which is responsible for processing a Coastal Permit application.

The Marin County CDA held a public hearing on March 25, 2021 for the Project's LCP permit (Project ID P3010) and the Deputy Zoning Administrator (DZA) approved the Use Permit at the same hearing. An appeal was filed by Save Our Seashore (SOS) on April 1, 2021 requiring the issue to be reviewed by the Marin County Planning Commission. As previously presented to the Board, subsequent public hearings by the MC Planning Commission and the Marin County Board of Supervisors (BOS) resulted in subsequent appeals by SOS between May and July 2021. As allowed by California state law, an appeal was filed by SOS with the California Coastal Commission (CCC) after the BOS Meeting in July and tentative public hearing date is set for October 12, 2021.

In addition to the LCP permit, a Lake and Streambed Alteration Agreement application was submitted to the California Department of Fish & Wildlife (CDFW) on June 11, 2021 for the project. The application was deemed complete on August 19, 2021 and CDFW has 60 days to issue a permit. The Board previously approved the CEQA Addendum and adopted a Resolution finding the proposed mitigation measures were consistent with the previously approved 2009 Mitigated Negative Declaration for the Project and filed a Notice of Determination with Marin County.

Approved by GM JB for GM

Date 09/03/21

The FY22 Capital Improvement budget includes a line item for the project in the amount of $631,000. As of June 30, 2021, the total costs to date is $363,405 which includes environmental review (CEQA), finalizing the project design and associated permitting tasks as well as coordination and participations in the various public hearings held to date. The anticipated construction cost is approximately $475,000.

Plans and specifications for the project have been completed by District staff and consultants and will be revised as necessary to include any permit conditions from the County's LCP permit, CCC conditions, if any, and the CDFW permit once received. The construction of the project will happen in two phases: Phase 1 for well installation; and Phase 2 for well pump assembly, piping and electrical systems construction (i.e. balance of work). Phase 1 will require a well contractor and Phase 2 is planned to be completed primarily by District crews.

Grant Funding Opportunity

In August of 2021, the California Department of Water Resources (DWR) issued the "Guidelines for the Small Community Drought Relief Program" (Program). The Program includes $200 million for water projects in communities served by urban water providers with less than 3,000 connections or less than 3,000 acre-feet of water delivered annually. The District West Marin Service Area qualifies for this Program. Additionally, the Gallagher Well No. 2 Project is an eligible project under the Program as it falls under the Program's "New wells or rehabilitation of existing wells" category. A copy of the Program is provided as Attachment 1. Staff feels that the Project is a good candidate for the Program and requests that the Board authorize the application process. In accordance with the Programs application procedures, a draft resolution is attached (Attachment 2) that designates the General Manager as the District's representative to sign the application, and in the event of an award of grant funds, to execute the funding agreement and all necessary subsequent documentation (e.g., invoices, progress reports, etc.).

## RECOMMENDATION

That the Board authorize the application for grant funding under the DWR Small Communities Drought Relief Program, designate the General Manager as the representative for the grant, and adopt the attached resolution for the Gallagher Well No. 2 Project.

State of California
Natural Resources Agency
**Department of Water Resources**
Division of Regional Assistance

# 2021

# GUIDELINES
# for the
# SMALL COMMUNITY DROUGHT RELIEF PROGRAM

Funded by:

GENERAL FUND PURSUANT TO THE BUDGET ACT OF 2021

ATTACHMENT 1

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# Foreword

This document contains the California Department of Water Resources' (DWR's) Small Community Drought Relief Program Guidelines (Guidelines). The Program is funded by the Budget Act of 2021 (Stats. 2021, ch. 69, § 112). This document is a standalone document intended to provide the required information for grant applicants. Potential applicants are encouraged to read the entire document prior to submitting their application.

This document contains the procedures for submitting applications for grant funding. All qualified, and interested parties are encouraged to submit a grant proposal.

## Contact

For questions about this document or its contents, please contact the Small Community Drought Relief Program at (559) 230-3309 or by email at SmallCommunityDrought@water.ca.gov.

## Website

This document, as well as other pertinent information about the Small Community Drought Relief Program, can be found at https://water.ca.gov/Water-Basics/Drought.

## Due Date and Application Submittal

There will be no formal proposal solicitation for this Program. Small communities impacted by the drought are encouraged to apply as soon as possible. Applications for funding will be accepted on a first come first served basis until all the funds are awarded, or until December 29, 2023, whichever comes first. **No applications will be accepted after December 29, 2023.**

All applicants are encouraged to submit their applications electronically to SmallCommunityDrought@water.ca.gov.

Hard copy application packages should be submitted to:

California Department of Water Resources
Division of Regional Assistance
South Central Region Office
3374 E. Shields Avenue
Fresno, CA 93726
Attn: Alena Misaghi

Item | Table of Contents | Page


**I. Purpose and Use ..... 1**

**II. Introduction and Overview ..... 1**
A. Authority ..... 1
B. Intent and Objectives ..... 2
C. Coordination with Other Agencies ..... 2

**III. Eligibility Requirements ..... 3**
A. Eligible Grant Applicants ..... 3
B. Eligible Project Types ..... 3

**IV. Program Requirements ..... 4**
A. Conflict of Interest ..... 4
B. Confidentiality ..... 4
C. Labor Code Compliance ..... 5
D. Compliance with the CEQA and Other Environmental Laws ..... 5
E. Greenhouse Gas Compliance ..... 5
F. Competitive Bidding and Procurement ..... 6
G. Signage or Acknowledgement of Credit ..... 6
H. Indemnify and Hold Harmless ..... 6

**V. Funding limitations ..... 6**
A. Project Time Limit ..... 6
B. Funding Match/Cost Share Requirements ..... 6
C. Eligible Costs for Reimbursement ..... 6

**VI. Proposal Solicitation ..... 8**
A. Publication of Guidelines ..... 8

**VII. Application Instructions ..... 8**
A. How to Submit ..... 8
B. What to Submit – Required Application Components ..... 8

**VIII. Review ..... 9**
A. Completeness and Eligibility Review ..... 9
B. Technical Evaluation ..... 9

**IX. EVALUATION Criteria ..... 9**
A. Standard Criteria ..... 9
B. Modified Funding Amounts ..... 9

**X. Award and Agreement Process ..... 10**
A. Funding Awards ..... 10
B. Grant Administration and Agreement Procedures ..... 10

**APPENDIX A – WEB LINKS ..... 11**
**APPENDIX B – GRANT APPLICATION PACKET ..... 12**
**APPENDIX C – RECORDS RETENTION GUIDELINES FOR GRANTEES ..... 21**

| Item | List of Tables | Page |
|---|---|---|

Table 1 - Examples of Eligible Projects ..... 3

## Acronyms and Abbreviations

| | |
|---|---|
| § | Code or regulatory section |
| CEQA | California Environmental Quality Act |
| CLC | California Labor Code |
| CWC | California Water Code |
| DAC | Disadvantaged Community |
| DIR | Department of Industrial Relations |
| DWR | Department of Water Resources, State of California |
| GHG | Greenhouse Gas |
| SAFER | Safe and Affordable Funding for Equity and Resilience Program |
| SDAC | Severely Disadvantaged Community |
| SWRCB | State Water Resources Control Board |

# SMALL COMMUNITY DROUGHT RELIEF PROGRAM GUIDELINES

## I. PURPOSE AND USE

This document establishes the process, procedures, and criteria that the Department of Water Resources (DWR) will use to implement the Small Community Drought Relief Program (Program). It provides both general information of the Program and detailed information for submitting applications. Included is information about program requirements; eligible applicants and projects; submittal, and review of grant applications; and the grant funding award process.

## II. INTRODUCTION AND OVERVIEW

Two hundred million dollars of General Fund monies have been appropriated for the Small Community Drought Relief Program in response to the 2021 drought. Funds will be available for encumbrance or expenditure until June 30, 2024.

In the first quarter of 2021, it became apparent that California was in a drought because of the prevailing hydrological conditions. Climate change-induced early warm temperatures and extremely dry soils had depleted the expected runoff water from the Sierra-Cascade snowpack, resulting in historic and unanticipated reductions in the amount of water flowing to the major rivers and reservoirs in the state, especially in Klamath River, Sacramento-San Joaquin Delta, and Tulare Lake Watershed counties.

Governor Newsom proclaimed a state of emergency for drought on April 21, 2021 and May 10, 2021 to cover the counties most affected. On July 8, 2021, the drought emergency proclamation was expanded to cover 50 counties of the State as the drought worsened. The drought emergency proclamations directed state agencies to take immediate action to bolster drought resilience and prepare for impacts on communities, businesses, and ecosystems if dry conditions extend to a third year.

### A. Authority

The Program was authorized by the Legislature pursuant to the Budget Act of 2021 (Stats. 2021, ch. 69, §112) and its Trailer Bill, Assembly Bill 148 (Stats. 2021, ch. 115, § 97). The Trailer Bill authorized specified state agencies, defined as implementing agencies, subject to an appropriation for these purposes, to make grants and direct expenditures for interim or immediate relief in response to conditions arising from a drought scenario to address immediate impacts on human health and safety and on fish and wildlife resources and to provide water to persons or communities that lose or are threatened with the loss or contamination of water supplies.

The Trailer Bill defined drought scenario as when the Governor has issued a proclamation of a state of emergency pursuant to the California Emergency Services Act based on drought conditions or when the State Water Resources Control Board determines, subject to specified requirements, that drought conditions necessitate urgent and immediate action to ensure availability of safe drinking water, to protect public health and safety, or to avoid serious and irreparable harm to fish or wildlife.

The Program is authorized to fund "interim or immediate relief" as defined in Water Code section 13198(c). "Interim or immediate relief" means any of the following:

(A) Hauled water.
(B) Temporary community water tanks.
(C) Bottled water.
(D) Water vending machines.
(E) Emergency water interties.
(F) New wells or rehabilitation of existing wells.
(G) Construction or installation of permanent connections to adjacent water systems, recycled water projects that provide immediate relief to potable water supplies, and other projects that support immediate drought response.

## B. Intent and Objectives

The intent of the Small Community Drought Relief Program is to provide immediate and near-term financial and technical support to help small communities survive this and future droughts. Financial support includes grants for recipients to implement projects that satisfy program objectives. Technical support includes, but is not limited to, DWR directly providing project management, engineering, and construction management services to construct infrastructure for beneficiaries where it will best serve the program objectives.

The Program aims to implement needed resiliency measures and infrastructure improvements for small water suppliers and rural communities. The Program will support projects and programs that provide immediate and near-term water supply reliability benefits and improve small communities' drought and water shortage resiliency and preparedness.

The specific objectives are to implement projects that provide reliable water supply sources, improve water system storage, replace aging and leaking pipelines, and provide alternative power sources for operation (emergency generators). Potential projects include emergency and permanent interties, well deepening, second well, fixing or replacing leaking water lines, construction or upgrade of intake structures, additional water storage facilities, and tanks.

The Program will also provide funding for hauled water, temporary community water tanks, bottled water, water vending machines, and emergency water interties, as a bridge to more permanent and drought resilient solutions.

## C. Coordination with Other Agencies

DWR is responsible for administering the Program, including soliciting proposals (where necessary), organizing application reviews, preparing and administering grant agreements, monitoring project progress, and program oversight through the terms of the grant agreement.

Proposals received by this Program will be coordinated with other DWR programs to ensure efficiency and avoid duplication. Furthermore, DWR will collaborate with the State Water Resources Control Board (SWRCB) Financial Assistance Program as well as the Safe and Affordable Funding for Equity and Resilience (SAFER) Program.

## III. ELIGIBILITY REQUIREMENTS

### A. Eligible Grant Applicants

Applicants applying to the Small Community Drought Relief Program must meet all relevant eligibility criteria in order to be considered for funding. In addition, entities that are currently recipients of another grant from DWR must be in compliance with the terms of that grant, including up-to-date progress reports, at the time of award to be eligible to receive funds from this Program. Eligible applicants include:

- Public agencies (e.g., Counties, cities)
- Public utilities
- Special districts (e.g., school districts, community service districts, irrigation districts, flood control districts, reclamation districts)
- Colleges and universities
- Mutual water companies
- Nonprofit organizations[1]
- Federally recognized Indian tribes
- State Indian tribes listed on the Native American Heritage Commission's California Tribal Consultation List

DWR will also be considering projects referred from the SWRCB as well as projects developed through direct DWR engagement with communities via existing drought task forces and other existing local assistance programs.

### B. Eligible Project Types

Eligible projects for the Small Community Drought Relief Program shall be in counties included in Governor Newsom's state of emergency proclamations for 2021. Any county or jurisdiction included in a future drought proclamation by the Governor or for circumstances for which the SWRCB determines that drought conditions necessitate urgent and immediate action to ensure availability of safe drinking water, to protect public health and safety, will also qualify for funding.

To be eligible for the Small Community Drought Relief Program funding, projects must be designed to benefit small communities and rural communities. Eligible projects must address one or more program objectives. Examples of projects that meet the intent of the Program are provided below. This list is not exhaustive; other projects can be considered at the discretion of DWR as providing program benefits.

**Table 1 - Examples of Eligible Projects**

| Category | Project Examples |
|---|---|
| Hauled water | 1. Transporting water via truck from source to beneficiary community.<br>2. Transporting water via rail from source to beneficiary community. |
| Temporary community water tanks | 3. Installing temporary water tanks at locations for community use.<br>4. Installing temporary water tanks at private homes, if deemed feasible and necessary by Program. |

[1] "Non-profit organization" means an organization qualified to do business in California and qualified under Section 501(c)(3) of Title 26 of the United States Code.

| | |
|---|---|
| Bottled water | 5. Distribution of bottled water for drinking. |
| Water vending machines | 6. Installing of potable water vending machines at public places for community consumption. |
| Emergency water interties | 7. Constructing emergency water interties. |
| New wells or rehabilitation of existing wells | 8. Drilling of new community wells.<br>9. Rehabilitation of existing water system wells.<br>10. Equipping of new wells.<br>11. Equipping of existing wells.<br>12. Installation of well-head treatment. |
| Construction or installation of permanent infrastructure | 13. Connections to adjacent water systems.<br>14. Recycled water projects that provide immediate relief to potable water supplies.<br>15. Installation of water system pipelines.<br>16. Installation of booster pump stations.<br>17. Installation of water intake works.<br>18. Installation of water storage tanks.<br>19. Construction of other projects that support immediate and near-term drought response. |

## IV. PROGRAM REQUIREMENTS

For all projects awarded funding by DWR, the grantee will need to execute a funding agreement with the State. It is **HIGHLY** recommended that applicants review the grant agreement template prior to submission of their proposal. If applicants are not able to abide by the terms and conditions contained therein, applicants should not submit a proposal. A funding agreement template may be found online at: https://water.ca.gov/Work-With-Us/Grants-And-Loans/SmallCommunityDrought. The following is a partial list of requirements that will be contained within any funding agreement:

### A. Conflict of Interest

All participants are subject to State conflict-of-interest laws. Failure to comply with these laws, including business and financial disclosure provisions, will result in the proposal being rejected and any agreement being declared void. Other legal action may also be taken. Applicable statutes include, but are not limited to, Government Code section 1090 and Public Contract Code sections 10410 and 10411.

As part of the conflict of interest requirements, individuals working on behalf of a funding recipient (grantee) may be required by the State to file a Statement of Economic Interests (Fair Political Practices Commission Form 700) if it is determined that an individual is a consultant for Political Reform Act purposes.

### B. Confidentiality

Applicants should be aware that when submitting a proposal to the State, they will waive their rights to the confidentiality of the contents of the proposal. Once a decision on an application has been made by DWR, the proposal is subject to disclosure pursuant to the California Public Records Act (Gov. Code, § 6250 et seq.).

### C. Labor Code Compliance

As part of the funding agreement, the funding recipient shall agree to be bound by all the provisions of the Labor Code regarding prevailing wages, and shall monitor all contracts subject to reimbursement from the funding agreement to assure that the prevailing wage provisions of the Labor Code are being met. Current Department of Industrial Relations (DIR) requirements may be found at: http://www.dir.ca.gov/lcp.asp. Before submitting an application, applicants are urged to consult with their legal counsel regarding Labor Code compliance. DWR will not advise applicants on Labor Code compliance. For more information, please refer to DIR's Public Works Manual at: http://www.dir.ca.gov/dlse/PWManualCombined.pdf. The funding recipient will also affirm that it is aware of the provisions of Section 3700 of the Labor Code, which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance.

### D. Compliance with the CEQA and Other Environmental Laws

All activities funded pursuant to the Program must comply with the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.). Any work that is subject to CEQA and funded under a funding agreement shall not proceed until documents that satisfy the CEQA process are received by DWR, and DWR has completed its CEQA compliance. Alternatively, the grantee shall notify DWR if they believe their activities will not be considered a project under CEQA, or that their activities qualify for a CEQA exemption. DWR must ensure the adequacy of the CEQA documents before it can provide funding; therefore, early coordination between the lead agency and DWR during the preparation of the CEQA documents will help expedite DWR's review and approval process.

If CEQA compliance by the grantee or lead agency is not complete at the time a funding agreement is executed by the parties, once DWR has considered the environmental documents, it may decide to require changes, alterations, or other mitigation to the project; or to not fund the project. Should the State decide to not fund the project, the funding agreement shall be terminated. Any work subject to CEQA that proceeds prior to DWR's review and approval process being completed, will not be reimbursed and the amount will be reduced from the award amount.

For general information about environmental compliance, refer to the website provided in Appendix A.

### E. Greenhouse Gas Compliance

In 2005, California Governor Schwarzenegger's Executive Order S-3-05 committed the State to reduce greenhouse gas (GHG) emissions. One year later, the Governor signed the "Global Warming Solutions Act of 2006" (Assembly Bill [AB] 32), which legally obligates the state to reduce GHG emissions to 1990 levels by 2020. Analysis of GHG emissions was made a requirement in the CEQA Guidelines in December 2009, becoming effective March 18, 2010.

All CEQA documents must analyze potential project-related GHG emissions. As a Responsible Agency, DWR must also evaluate potential GHG emissions for the proposed project before exercising its discretion to give final approval for a grant. Applicants can refer to *Informal Guidance for DWR Grantees: GHG Assessment for CEQA Purposes*, which can be obtained at the link provided in Appendix A. This document provides an overview of how DWR approaches GHG emissions analysis in CEQA documents related to its grant-funded projects.

### F. Competitive Bidding and Procurement

A grantee's contracts with other entities for the acquisition of goods, services, and construction of public works with funds provided by the State must be in writing and shall comply with all applicable laws and regulations regarding the securing of competitive bids and undertaking competitive negotiations. If a funding recipient does not have a written policy to award contracts through a competitive bidding or sole source process, Department of General Services' State Contracting Manual rules must be followed and are available at: https://www.dgs.ca.gov/OLS/Resources/Page-Content/Office-of-Legal-Services-Resources-List-Folder/State-Contracting. Applicants with questions regarding competitive bidding requirements should be directed to their counsel. DWR will not advise applicants on competitive bidding requirements.

### G. Signage or Acknowledgement of Credit

To the extent practicable, a project supported by funds from the Small Community Drought Relief Program will include signage and other relevant forms of acknowledgement informing the public that the project received funds from DWR and the Budget Act of 2021. Specific verbiage will be included in the final grant agreement.

### H. Indemnify and Hold Harmless

As part of the funding agreement, grantees shall indemnify and hold harmless the State, its officers, agents, and employees from any and all liability from any claims and damages (including inverse condemnation) arising from the planning, design, construction, repair, replacement, rehabilitation, maintenance, and operation of the project, and any breach of the funding agreement.

## V. FUNDING LIMITATIONS

A total of $192 Million in funding from the General Fund is available for grants under this Program.

### A. Project Time Limit

Applicants should note that the time allotted for the expenditure or encumberance of funds is only three years. All funds must be encumbered or expended by June 30, 2024.

### B. Funding Match/Cost Share Requirements

No cost-share is required but encouraged. Grantees are required to provide details of all other costs and funding sources integral to the project that are not covered by grant funding. In addition, grantees are required to show cost share (e.g., federal, local, other funds, or in-kind services) if an awarded project costs more than the grant amount. Any project awarded grant funds must be completed and operational such that it alleviates drought conditions. Failure to complete the project by a grantee may result in required repayment of grant funds disbursed.

### C. Eligible Costs for Reimbursement

Only costs incurred from the issuance of commitment letters issued to successful applicants will be eligible for reimbursement. Advance funds will not be provided except as allowed. Applicants that have demonstrated cashflow problems to the satisfaction of DWR may be provided advance payment of up to 25 percent of grant funds awarded.

Eligible project costs may include the reasonable costs of studies, engineering, design, project construction, and other work directly related to the scope of work. Reimbursable administrative expenses are the necessary incidental costs that are directly related to the project.

Costs associated with travel are eligible for reimbursement if the travel expenses are reasonable, justifiable, and necessary for the successful completion of the project. Allowable reimbursement rates for mileage, lodging, and per diem are limited to the requirements specified by the California Department of Human Resources (http://www.calhr.ca.gov/employees/pages/travel-reimbursements.aspx). No travel outside the State of California shall be reimbursed unless prior written authorization is obtained from the State.

Costs that are not eligible for reimbursement include but are not limited to:

- Costs incurred prior to the execution of the funding agreement or issuance of a commitment letter.
- Purchase of equipment that is not an integral part of the project.
- Purchase of water supplies that are not an integral part of the project.
- Establishing a reserve fund.
- Replacement of existing funding sources for ongoing programs.
- Support of existing punitive regulatory agency requirements and/or mandates in response to negligent behavior.
- Purchase of land in excess of the minimum required acreage necessary to operate as an integral part of the project, as set forth and detailed by engineering and feasibility studies, or land purchased prior to the execution of the grant agreement.
- Payment of principal or interest of existing indebtedness or any interest payments.
- Operation and maintenance costs.
- Costs incurred as part of any necessary response and cleanup activities required under the Comprehensive Environmental Response, Compensation, and Liability Act; Resource Conservation and Recovery Act; Hazardous Substances Account Act; or other applicable law.
- Any federal or state taxes.
- Expenses incurred in preparation of the proposal or an application for another program
- Any indirect costs. Indirect Costs means those costs that are incurred for a common or joint purpose benefiting more than one cost objective and are not readily assignable to the funded project (i.e., costs that are not directly related to the funded project).

  Examples of Indirect Costs include, but are not limited to: central service costs; general administration of the Funding Recipient; non-project-specific accounting and personnel services performed within the Funding Recipient's organization; depreciation or use allowances on buildings and equipment; the costs of operating and maintaining non-project-specific facilities; tuition; conference fees; and, generic overhead or markup. This prohibition applies to the grantee and any subcontract or sub-agreement for work on the funded project that will be reimbursed with grant funds from DWR.

## VI. PROPOSAL SOLICITATION

The following sections provide instructions on proposal submittal requirements, information about the selection process, and program schedule. There will be no formal proposal solicitation package. Applicants are therefore encouraged to apply as soon as possible.

Applications will be processed as they are received until funds are exhausted or until December 29, 2023, whichever comes first. Applications and supporting documentation received after this date will not be reviewed or considered for funding.

### A. Publication of Guidelines

Publication of the Guidelines will be posted on: https://water.ca.gov/Water-Basics/Drought. Proposals and enquiries can be sent to SmallCommunityDrought@water.ca.gov.

## VII. APPLICATION INSTRUCTIONS

A complete application package will include one (1) original complete application marked as "ORIGINAL," and four copies or (1) electronic copy (in MS Word or searchable pdf format) of the original application submitted via email.

### A. How to Submit

Applicants must submit the items stated above. Electronic submission to SmallCommunityDrought@water.ca.gov is preferred. The address for mailing by U.S. mail, overnight courier, or hand delivery of hardcopy application components is as follows:

California Department of Water Resources
Division of Integrated Regional Water Management
South Central Region Office
3374 E. Shields Avenue
Fresno, CA 93726
Attn: Alena Misaghi

### B. What to Submit – Required Application Components

This section presents the required elements of an application for a grant funded by the Small Community Drought Relief Program. Applicants must submit a complete application by the deadline of December 29, 2023.

A complete application consists of the items included in Appendix B, including:

Attachment 1 – Organizational, Financial, and Legal Information

- Part I: Application Cover Sheet
- Part II: Applicant's Representatives
- Part III: Summary of Project Costs
- Part IV: Authorizing Resolution

Attachment 2 – Project Proposal, Tasks, and Budget

Appendix B contains an application checklist, followed by application Attachments 1, and 2. For reviewing purposes, it is recommended that applicants use the form documents provided (Attachment 1) and the outline provided for project proposals (Attachment 2), though other

formats with at least the same information will be considered.

## VIII. REVIEW

### A. Completeness and Eligibility Review

All applications will undergo eligibility and completeness review for the required items listed in these Guidelines. If an application is determined to be ineligible, the application will not be reviewed or considered for funding. All eligible applications will be evaluated as described below. The application will be evaluated based on what is contained in the application. Applicants may be asked to provide additional information as needed to complete the application upon DWR's request.

### B. Technical Evaluation

All eligible grant applications will undergo a technical evaluation. First, project proposals will be evaluated by program staff. Program staff will evaluate the proposals to determine if they meet program objectives. Each proposal will be reviewed by at least two qualified program staff.

Following the completion of the technical reviews by program staff, DWR supervisory-level staff will review and finalize evaluations, then develop funding recommendations for the Program Division Manager's approval. Following approval of the funding recommendations by the Program Division Manager, the funding recommendations will be communicated through the appropriate DWR chain-of-command. The applicant will then be notified.

## IX. EVALUATION CRITERIA

The grant funding is non-competitive. Therefore, the proposals will not be scored. The proposals will only be evaluated against program objectives. Applicants must specify their eligibility in their proposals.

### A. Standard Criteria

Projects must benefit communities not supplied by an urban water supplier as defined in California Water Code (CWC) Sec 10617. Urban water suppliers are those that provide drinking water with 3,000 connections or more or more than 3,000 acre-feet per year.

### B. Modified Funding Amounts

DWR may recommend modified grant amounts from that requested in order to equitably distribute the limited funding available for this Program and/or to better meet program objectives.

## X. AWARD AND AGREEMENT PROCESS

### A. Funding Awards

Once a funding recommendation is developed by program staff, and approved by DWR's management, the selected grant recipient will receive a commitment letter officially notifying them of their selection and the grant amount.

### B. Grant Administration and Agreement Procedures

Following the funding commitment, DWR will execute a grant agreement with the grant recipient. Grant agreements are not executed until signed by the authorized representative of the grant recipient and DWR. For reference, Appendix C provides grantees with a summary of the minimum materials that will need to be maintained during the life of the grant agreement for State auditing purposes.

# APPENDIX A – WEB LINKS

| | |
|---|---|
| **DWR** | |
| Home Page | https://water.ca.gov/ |
| Grants and Loan Information | https://water.ca.gov/Work-With-Us/Grants-And-Loans |
| Small Community Drought Relief Program | https://water.ca.gov/Water-Basics/Drought |
| **Environmental Compliance** | |
| General Environmental Compliance Information | http://opr.ca.gov/ceqa/ |
| CEQA Document Submission | http://opr.ca.gov/clearinghouse/ceqa/document-submission.html |
| **Other Information** | |
| California Department of Industrial Relations | http://www.dir.ca.gov/ |

## APPENDIX B – GRANT APPLICATION PACKET

| | **Grant Application Checklist**<br>*The following information is required to be submitted in proposal applications.* |
|---|---|
| | **ATTACHMENT 1**<br>*Organizational, Financial, and Legal Information* |
| ☐ | Part I: Application Cover Sheet |
| ☐ | Part II: Applicant's Representatives |
| ☐ | Part III: Summary of Project Costs |
| ☐ | Part IV: Authorizing Resolution |
| | **ATTACHMENT 2**<br>*Project Proposal, Tasks, and Budget* |
| ☐ | Project Proposal |

## Attachment 1, Part I – Application Cover Sheet

Application for Small Community Drought Relief Program pursuant to Budget Act of 2021

The_____
*(Exact legal name of local entity applying for the grant)*

Of_____
*(Mailing address of local entity)*

_____

Of the County of _____, State of California, does hereby apply to the California Department of Water Resources for a grant in the amount of $_____.

For the following project under the Small Community Drought Relief Program:

_____
*(Specify project title)*

By _____Date_____
*(Signature of authorized representative)*

_____
*(Print or type name of authorized representative)* *(Title)*

Telephone (_____)_____ E-mail _____

**Brief Proposal Description:**

_____

_____

_____

_____

_____

_____

_____

## Attachment 1, Part II – Applicant's Representatives

**Project Name**_____

**Primary Project Contact**

Name_____Title_____

Address_____

Telephone (_____)_____FAX (_____)_____

E-mail_____

**Alternate Project Contact**

Name_____Title_____

Address_____

Telephone (_____)_____FAX (_____)_____

E-mail_____

**Alternate Project Contact (If Applicable)**

Name_____Title_____

Address_____

Telephone (_____)_____FAX (_____)_____

E-mail_____

Type of Organization:_____
(city, county, water district, non-profit, etc.)

Attach a copy of the applicant's charter and the names and titles of its officers.

## Attachment I, Part III – Summary of Project Costs

Provide a summary of the financing information about the proposed project, including cost share (if applicable).

| | | % of Total Cost |
|---|---|---|
| Total Cost of Project: | $_____ | |
| Amount Requested: | $_____ | _____ |
| Amount of Cost Share[1]: | $_____ | _____ |
| Amount of Federal Contribution: | $_____ | _____ |
| In-kind Contributions: | $_____ | _____ |
| Amount to be Funded by Other Sources: (Describe below in table.) | $_____ | _____ |

Sources of funds from partner agencies for this project, if applicable:

| Amount | Name of Source | Status of Funds[2] |
|---|---|---|
| $ | | |
| $ | | |
| $ | | |
| $ | | |
| Total: $ | | |

Is the project entirely benefiting a Disadvantaged Community (DAC) or Severely Disadvantaged Community (SDAC)? (Y/N):_____

If the project is partially benefiting DAC or SDAC, provide percentage of grant funds to directly benefit a DAC or SDAC:_____

Additional explanation, if necessary:

_____

_____

_____

**Notes:**

[1] No cost share is required; however, grantees are required to show cost share (e.g., federal, local, or other funds) if an awarded project costs more than the grant amount.

[2] Identify the current status of funds: available, planned/budgeted, awarded or pending.

## Attachment I, Part IV – Authorizing Resolution

If possible, include a resolution adopted by the applicant's governing body authorizing the application for a grant under this Program that designates a representative to sign the application, and in the event of an award of grant funds, a representative to execute the funding agreement and all necessary documentation (e.g., invoices, progress reports, etc.). If the resolution has not been adopted prior to the application's submission, indicate in the proposal document when a signed resolution will be received by DWR. A signed, certified resolution must be received prior to the execution of a grant agreement with the State. In some cases, an applicant may have a standing (permanent) delegation, applicable ordinance, or bylaws that already delegate a representative. In such cases, please include the applicable documents with your application. Attached is a sample resolution template that may be used:

RESOLUTION NO. [xxxx]

A RESOLUTION OF THE [GOVERNING BODY] OF THE [AGENCY NAME]

AUTHORIZING THE GRANT APPLICATION, ACCEPTANCE, AND EXECUTION

FOR THE [PROJECT TITLE]

WHEREAS, [Agency Name] proposes to implement [Project Title];

WHEREAS, [Project Title] is being implemented in response to a drought scenario, as defined by Water Code section 13198(a) and is intended to: (1) address immediate impacts on human health and safety; (2) address immediate impacts on fish and wildlife resources; or, (3) provide water to persons or communities that lose or are threatened with the loss or contamination of water supplies;

WHEREAS, [Agency Name] has the legal authority and is authorized to enter into a funding agreement with the State of California; and

WHEREAS, [Agency Name] intends to apply for grant funding from the California Department of Water Resources for the [Project Title];

THEREFORE, BE IT RESOLVED by the [Governing Body] of the [Agency Name] as follows:

1. That pursuant and subject to all of the terms and provisions of Budget Act of 2021 (Stats. 2021, ch. 69, § 112), the [Agency Name] [Title of Authorized Representative], or designee is hereby authorized and directed to prepare and file an application for funding with the Department of Water Resources, and take such other actions as necessary or appropriate to obtain grant funding.

2. The [Agency Name] [Title of Authorized Representative], or designee is hereby authorized and directed to execute the funding agreement with the Department of Water Resources and any amendments thereto.
3. The [Agency Name] [Title of Authorized Representative], or designee is hereby authorized and directed to submit any required documents, invoices, and reports required to obtain grant funding.

CERTIFICATION I hereby certify that the foregoing Resolution was duly and regularly adopted by the [Governing Body Name] of the [agency name] at the meeting held on [date], motion by [member name] and seconded by [member name], motion passed by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

_____

[Printed Name]

[Title], [Governing Body]

Attest:

_____

[Printed Name]

[Secretary/Clerk]

## Attachment 2 – Project Proposal, Tasks, & Budget

Applicants are required to submit a project proposal with a detailed task breakdown to complete the Small Community Drought Relief Program grant application. The proposal should provide detailed descriptions, discussion, and documentation for each of the proposal sections listed below. The proposal should describe the tasks that will be undertaken to implement the project and include a budget and schedule that support and are consistent with the identified tasks.

The level of detail must be sufficient to allow reviewers to understand the level of effort of the work being performed and to relate the proposed work to the budget so that the cost estimates can be substantiated. Page limits and character limits are not specified. The applicant should determine the level of detail required to convey how the proposed project meets the objectives and requirements outlined in the Guidelines.

The project proposal must include the following items, with at least as much detail as specified in the descriptions below.

### *1. Title of Project*

Provide the title of the project. The title must be descriptive and provide an idea of what the project is meant to achieve.

### *2. Project Management*

Provide the name, contact information, and description of qualifications of the following persons associated with the project. The roles of key personnel must be clearly defined. Key personnel associated with the project must have sufficient expertise to complete the project, and evidence of competence in the proposed area of work must be provided.

Project Director: Responsible for executing the grant agreement and any amendments and approving invoices for the applicant. Persons that are subcontractors to be paid with the grant funds cannot be listed as the Project Director.

Project Manager: Day-to-day contact from the applicant, agency, or organization.

Other Cooperators: Cooperating individuals and agencies, including consultants, who will be participating in the implementation of the project.

Information for other key personnel associated with the project may also be provided, if applicable. Qualifications may be enhanced through partnerships with other institutions; these relationships with other institutions should be clearly defined and described.

Discussion and evidence of institutional capacity to successfully complete the project should be provided in this section. The discussion should show that proposed personnel, facilities, and equipment are adequate for successfully completing the project.

### *3. Scope of Work and Project Description*

Provide a scope of work that briefly summarizes the project activities and tasks that will be implemented to achieve proposed outcomes.

Provide a project description that explains the work to be performed and an overview of deliverables for assessing progress and accomplishments. A complete project description should be concise and include the following information:

- A brief explanation of the goals and objectives, or purpose and need, for the project.
- Description of the components of the project that will be funded by DWR.
- If the project constitutes a phase of a larger, multi-phase project, including a discussion of how the phase of work supported by DWR funds can operate or be functional without the implementation of other phases of work.
- A description of existing contracts, Memorandums of Understanding, Joint Powers Authorities, or other formal agreements with project partners, if applicable.
- A description of the project location including overlying jurisdiction (city, county, state, or federal land), assessor parcel numbers, property addresses, and the latitude/longitude of the project site. It is suggested to include a project map that shows the project's geographical location and the boundaries of the work.

### *4. Project Objectives*

Project goals and objectives should be clearly described, adequately developed, and appropriate to help achieve the stated program objectives. When possible, quantifiable objectives should be proposed. Objectives may be presented in a tabular or bulleted format to aid in the review and presentation of the information.

The proposal should identify if the proposed project meets any of the stated program objectives and to what extent they are met. Describe and provide sufficient documentation to support how the project meets one or more of the program objectives stated in the Guidelines.

### *5. Task Breakdown*

The task breakdown should contain descriptions of all of the tasks necessary to complete the proposed project. The descriptions must contain enough detail to sufficiently explain all the work necessary to complete each task, to demonstrate that the tasks are ready for implementation, to prove that there is a high expectation of successful implementation, and to show that the tasks are consistent with the project schedule and budget. Project tasks may be broken into subtasks for additional clarification of the project components. The task breakdown shall include, at a minimum, the following elements:

- Description of the tasks and subtasks required to complete the project.
- Identification of the budget and costs associated with each task. Proposed costs should be detailed and specific and should be reasonable for the proposed work.

- Schedule for implementing each task, including the start and end date for each task.
- Summary of deliverables and reporting tasks, including quarterly progress reports, invoices, a final report, and a post-completion report.

### *6. Schedule*

Provide a schedule for implementation of the project showing the sequence of tasks and timing. The schedule should be detailed and specific. The schedule must show the start and end dates as well as milestones for each task and should be formatted in a horizontal bar or Gantt chart. The schedule should also illustrate dependencies on preceding tasks by showing appropriate linkages. The schedule must be consistent with the task breakdown and the budget. Assume a realistic start date for your proposed project, and anticipate a 2-year performance period. The schedule must indicate readiness to start the project when funding becomes available.

### *7. Budget*

The budget should include a tabular summary of project costs. This section of the proposal should serve as a budget summary section, while the task breakdown should include a detailed explanation of the task item costs and documentation of costs and billing rates.

The tabular cost estimate should be organized by task breakdown and should indicate a funding source for the costs attributed to each task. Subtasks and their relative costs should also be included, if applicable. Consistency with the work items shown in the task breakdown should be apparent. The funding source breakdown included in the budget table should indicate costs from the following types of sources: grant amount requested, cost-share (if applicable), federal contribution, in-kind contributions, and other contributions. A column indicating total project cost should also be included.

### *8. Deliverables*

Mandatory grant reporting tasks include the submittal of quarterly progress reports, invoices, a final report, and a post-completion report. Other additional deliverables may be applicable to the project, including technical studies, technical memorandums, and other documents useful for reporting the progress of the project. Provide a discussion of proposed project deliverables, proposed timelines for the deliverables (the schedule may be referenced), and other deliverables if appropriate to the project.

# APPENDIX C – RECORDS RETENTION GUIDELINES FOR GRANTEES

The lists below provide details on the documents/records that State auditors would need to review in the event that a funding agreement is audited. Grantees should ensure that such records are maintained. Where applicable, this list of documents also includes documents relating to the grantee's cost share that will be required for audit purposes.

***State Audit Document Requirements***

**Internal Controls**

1. Organization chart (e.g. agency's overall organization chart and organization chart for the grant or loan funded program/project)
2. Written internal procedures and flowcharts for the following:
    a. Receipts and deposits
    b. Disbursements
    c. State reimbursement requests
    d. Grant or loan expenditure tracking
    e. Guidelines, policies, and procedures on grant or loan-funded program/project
3. Audit reports of the agency's internal control structure and/or financial statements for the last two years
4. Prior audit reports on grant or loan-funded program/project

**Grants or Loans**

1. Original grant or loan agreement, amendment(s), and budget modification documents
2. A listing of all bond-funded grants or loans received from the State
3. A listing of all other funding sources for each program/project

**Contracts**

1. All subcontractor and consultant contracts and related or partners' documents, if applicable
2. Contracts between the agency and member agencies as related to the grant or loan funded program/project

**Invoices**

1. Invoices from vendors and subcontractors for expenditures submitted to the State for payments under the grant or loan
2. Documentation linking subcontractor invoices to State reimbursement, requests, and related grant or loan budget line items
3. Reimbursement requests submitted to the State for the grant or loan

**Cash Documents**

1. Receipts (copies of warrants) showing payments received from the State

2. Deposit slips (or bank statements) showing deposit of the payments received from the State
3. Cancelled checks or disbursement documents showing payments made to vendors, subcontractors, consultants, and/or agents under the grants or loans
4. Bank statements showing the deposit of the receipts

**Accounting Records**

1. Ledgers showing entries for or loan receipts and cash disbursements
2. Ledgers showing receipts and cash disbursement entries of other funding sources
3. Bridging documents that tie the general ledger to requests for grant or loan reimbursement

**Administration Costs**

1. Supporting documents showing the calculation of administration costs

**Personnel**

1. List of all contractors and agency staff that worked on the grant or loan-funded program/project
2. Payroll records including timesheets for contractor staff and the agency personnel who provided services charged to the program

**Project Files**

1. All supporting documentation maintained in the project files
2. All grant or loan-related correspondence

***Cost Share Guidelines***

Cost Share (often referred to as Funding Match) consists of non-State funds including in-kind services. In-kind services are defined as work performed or items contributed (i.e., dollar value of non-cash contributions) by the grantee (and potentially other parties involved) directly related to the execution of the scope of work (examples: volunteer services, equipment use, and facilities). Guidelines are provided below for documenting cost share with and without in-kind services.

1. Although tracked separately, in-kind services shall be documented and, to the extent feasible, supported by the same methods used by the funding recipient for its own employees. Such documentation should include the following:
    a. Detailed descriptions of the contributed item(s) or service(s)
    b. Purpose for which the contribution was made (tied to Funding Agreement Work Plan)
    c. Name of contributing organization and date of the contribution
    d. The real or approximate value of the contribution. Who valued the contribution and how the value was determined? (e.g., actual, appraisal, fair market value, etc.). Justification of rate. (See item #2, below)
    e. For contributed labor, the person's name, the work performed, the number of hours contributed, and the pay rate applied

f. If multiple sources exist, these should be summarized on a table with summed charges

g. Source of contribution and whether it was provided by, obtained with, or supported by government funds

2. Rates for volunteer or in-kind services shall be consistent with those paid for similar work in the funding recipient's organization. For example, volunteer service of clearing vegetation performed by an attorney shall be valued at a fair market value for this service, not the rate for professional legal services. In those instances in which the required skills are not found in the recipient's organization, rates shall be consistent with those paid for similar work in the labor market. Paid fringe benefits that are reasonable, allowable, and allocable may be included in the valuation.

3. Funding match contribution (including in-kind services) shall be for costs and services directly attributed to activities included in the Funding Agreement Work Plan. These services, furnished by professional and technical personnel, consultants, and other skilled and unskilled labor, may be counted as in-kind if the activities are an integral and necessary part of the State-funded program/project under the Funding Agreement.

4. Cash contributions made to a program/project shall be documented as revenue and in-kind services as an expenditure. These costs should be tracked separately in the funding recipient's accounting systems.

RESOLUTION NO. 21-

OF THE NORTH MARIN WATER DISTRICT BOARD OF DIRECTORS
AUTHORIZING THE GRANT APPLICATION, ACCEPTANCE, AND EXECUTION
FOR THE NEW GALLAGHER WELL NO. 2

---

WHEREAS, North Marin Water District proposes to implement New Gallagher Well No. 2;

WHEREAS, New Gallagher Well No. 2 is being implemented in response to a drought scenario, as defined by Water Code section 13198(a) and is intended to: (1) address immediate impacts on human health and safety; (2) address immediate impacts on fish and wildlife resources; or, (3) provide water to persons or communities that lose or are threatened with the loss or contamination of water supplies;

WHEREAS, North Marin Water District has the legal authority and is authorized to enter into a funding agreement with the State of California; and

WHEREAS, North Marin Water District intends to apply for grant funding from the California Department of Water Resources for the New Gallagher Well No. 2;

THEREFORE, BE IT RESOLVED by the Board of Directors of the North Marin Water District as follows:

1. That pursuant and subject to all of the terms and provisions of Budget Act of 2021 (Stats. 2021, ch. 69, § 112), the North Marin Water District General Manager, or designee is hereby authorized and directed to prepare and file an application for funding with the Department of Water Resources, and take such other actions as necessary or appropriate to obtain grant funding.
2. The North Marin Water District General Manager, or designee is hereby authorized and directed to execute the funding agreement with the Department of Water Resources and any amendments thereto.
3. The North Marin Water District General Manager, or designee is hereby authorized and directed to submit any required documents, invoices, and reports required to obtain grant funding.

* * *

I hereby certify that the foregoing is a true and complete copy of a resolution duly and regularly adopted by the Board of Directors of NORTH MARIN WATER DISTRICT at a regular meeting of said Board held on the September 7, 2021 by the following vote:

AYES:
NOES:
ABSENT:
ABSTAINED:

_____
Theresa, Secretary
North Marin Water District

(SEAL)

ATTACHMENT 2

# 7

**MEMORANDUM**

To: Board of Directors September 3, 2021

From: Drew McIntyre, General Manager

Re: Contract Amendment for Consulting Services - Rauch Communications Consultants
R:\NON JOB No ISSUES\Consultants\Rauch Communication\Rauch Comm Contract Amend No. 2 BOD Memo 9-21.doc

**RECOMMENDED ACTION:** Authorize General Manager to amend the Consulting Services Agreement with Rauch Communications Consultants

**FINANCIAL IMPACT:** $20,000 (no budget augmentation necessary)

Background

At the April 23, 2019 meeting, the Board authorized a new Consulting Services Agreement between the District and Rauch Communications Consultants (Rauch) for miscellaneous marketing and public relations services. Contract Amendment 1 was authorized at the February 4, 2020 meeting in the amount of an additional $15,000. A cost breakdown for the initial contract and first amendment (by task) is summarized as follows:

| | |
|---|---|
| Starting Contract Amount | $15,000 |
| Contract Amendment 1 | $15,000 |
| Adjusted Contract Balance | $30,000 |
| Projects (expended to date) | |
| Transition to Division Based Elections | <$5,321> |
| District Shut-off Policy – Multiple Languages | <$2,235> |
| Water Rate Study Public Outreach | <$17,565> |
| Water Supply Article | <$770> |
| Remaining Balance on Contract | $4,109 |

Expenditures

Rauch expenditures currently total $25,891 leaving a balance of $4,109 on the contract. Although the contract amount has not been completely expended, additional expenditures related to the ongoing public outreach support make a contract amendment necessary.

RECOMMENDATION

That the Board authorize the General Manager to amend the Consulting Services Agreement with Rauch Communications Consultants in the amount of $20,000.

Approved by GM JB for GM

Date 09/03/21

# 8

**MEMORANDUM**

To: Board of Directors September 3, 2021

From: Tony Williams, Assistant General Manager/Chief Engineer

Subject: NMWD Headquarters Upgrade Project CEQA Notice of Exemption (NOE)
R:\Folders by Job No\6000 jobs\6501.44 NMWD Office_Yard Bldg Renovation\BOD Memos\Sept 7, 2021\6501 CEQA BOD Memo 9-3-21_FINAL.doc

**RECOMMENDED ACTION:** That the Board authorize staff to file the CEQA NOE with Marin County Clerk

**FINANCIAL IMPACT:** None at this time

The NMWD Headquarters Upgrade Project consists of a renovation of the District's existing 8,422 gross square foot office building used for administrative purposes. A new one-story addition would take place on the south side of the existing building and would add 4,733 gross square feet (sf) to provide a new water quality laboratory and new staff lunchroom and lobby area (laboratory = 3,458 sf; new lunch room/lobby = 1,275 sf). The Project includes improved public accessible pathways to the building entry and improved ADA accessibility in the building interior, including restrooms. A new 879 sf combination Board meeting and training room is included as part of the renovation of the existing building. Other site improvements include exterior lighting for safety and security, new rainwater catchment for storm runoff, low water use landscaping, and new decomposed granite pathways.

The District must perform environmental review of the proposed project pursuant to the California Environmental Quality Act (CEQA) prior to approval. Pursuant to CEQA Guidelines Section 15301(e)(2) - Existing Facilities (see Title 14, Division 6, Chapter 3 of the California Code of Regulations), this project is exempt as a minor addition of less than 10,000 feet to an existing structure in an area where all public services and facilities are available to allow for maximum development permissible in the General Plan, and the project is not located in an environmentally sensitive area. The exemption cited under CEQA Guidelines was reviewed and confirmed by legal counsel.

Amy Skewes-Cox assisted with the preparation of the CEQA Notice of Exemption (NOE) under the General Consulting Services Agreement in place for CEQA support for CIP projects. If the Board authorizes staff to file the attached NOE (Attachment 1), staff will file the NOE with the Marin County Clerk. If after the notice is posted for 35 days and no protest has been received at the end of that time, the District may proceed with final design and eventual construction of the project.

RECOMMENDATION:

That the Board authorize staff to file the CEQA NOE with Marin County Clerk.

# Notice of Exemption

**To:** ☐ Office of Planning and Research
1400 Tenth Street, Room 121
Sacramento, CA 95814

■ County Clerk, Marin County
Marin County Clerk
3501 Civic Center Dr. #234
San Rafael, CA 94903

**From:** North Marin Water District
999 Rush Creek Place
Novato, CA 94945

**Project Title:** North Marin Water District (NMWD) Office Upgrade
**Project Location:** 999 Rush Creek Place, Novato, CA 94945

**Specific:** NMWD is proposing to upgrade its existing 8,422 gross square foot office building used for administrative purposes. The new one-story addition would take place on the south side of the existing building and would add 4,913 gross square feet to provide a new water quality laboratory and new staff lunchroom/lobby. Other improvements would include accessible pedestrian pathways to the building entrances, new rainwater catchment for storm runoff, and new decomposed granite pathways.

**Project Location-City:** City of Novato
**Project Location-County:** Marin County

**Description of Nature, Purpose, and Beneficiaries of Project:** This project includes the following components:

- Addition of 4,733 gross square foot building footprint consisting of a new 3,458 square foot water quality laboratory and 1,275 gross square foot lunchroom/staff lobby. A new 180 gross square foot mechanical equipment penthouse would be located on the roof of the new building addition (with building height of laboratory about 22 feet above grade and mechanical penthouse an additional 7 feet higher);
- Total new impervious area of 4,733 gross square feet for the building and 1,840 square feet for concrete site work, and removal of 5,400 gross square feet of existing impervious surface area;
- Grading to direct stormwater towards stormwater storge facilities;
- Roof drainage system to direct precipitation to an aboveground storage tank (9-foot diameter and 5,100 gallons storage) that can be used for irrigation, with some drainage directed to existing onsite storm drainage system;
- New drought-resistant plants for landscaping on east, west, north, and south sides of the existing and new building;

- Resurfacing of existing parking and new security gate to separate the parking area;
- New decomposed granite pathway on east and north side of building;
- Removal of landscaping on north and south side of existing building and replacement with new shrub and tree landscaping.

A Site Plan is attached as **Figure 1**. Hours of construction will be Monday through Friday, 8 AM to 5 PM.

**Name of Public Agency Approving Project:** North Marin Water District

**Name of Person or Agency Carrying Out Project:** North Marin Water District
Exempt Status:

☐ Ministerial (Sec. 21080(b)(1); 15268);
☐ Declared Emergency (Sec. 21080(b)(3); 15269(a);
☐ Emergency Project (Sec. 21080(b)(4); 15269(b)(c));

■ Categorical Exemption. Existing Facilities -15301.
☐ Statutory Exemptions. State code Number:

**Reasons why project is exempt:**
Project includes an existing facility and is exempt under CEQA Guidelines Section 15301(e)(2) – Existing Facilities as a minor addition of less than 10,000 feet to an existing structure in an area where all public services and facilities are available to allow for maximum development permissible in the General Plan, and the project is not located in an environmentally sensitive area.

**Lead Agency Contact Person**: Tony Williams, PE, Assistant General Manager/Chief Engineer, North Marin Water District (415-761-8945)

If filed by applicant:
1. Attach certified document of exemption finding (applies to private projects only).
2. Has a Notice of Exemption been filed by the public agency approving the project?

■ Yes ☐ No

Signature:_____

Date:_____ Title: _____

■ Signed by Lead Agency Date received for filing at OPR: (not applicable)
■ Signed by Applicant

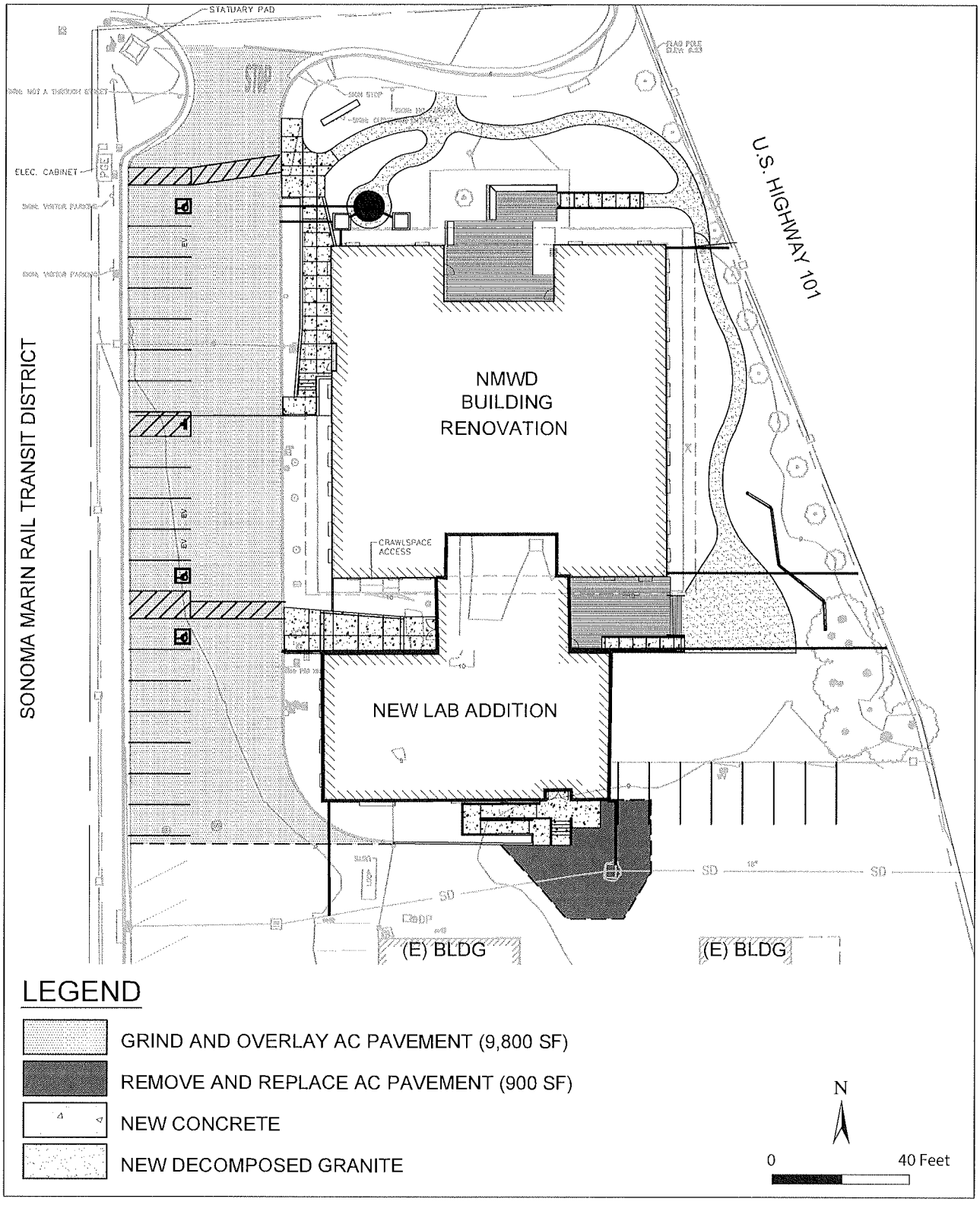



Figure 1

SOURCE: CSW/ST2, 2021

**SITE PLAN**

# 9

**MEMORANDUM**

To: Board of Directors September 3, 2021

From: Tony Williams, Assistant GM/Chief Engineer

Subj: NMWD Headquarters Upgrade Decision Milestones

R:\Folders by Job No\6000 jobs\6501.44 NMWD Office_Yard Bldg Renovation\BOD Memos\Sept 7, 2021\Update and Milestones\BOD Memo NMWD HQ Milestones_rev1.docx

**RECOMMENDED ACTION:** Provide Direction to Staff

**FINANCIAL IMPACT:** None at this time.

As a result of the North Marin Water District 2018 Strategic Plan, a series of goals were developed. Goal 4, People, Technology and Equipment included an objective to move forward with the design phase of the Office Remodel Project. Staff has been working with the Board over the last two years to accomplish this goal. The building is 56 years old and many recognized industry standards, including the American National Standards Institute, establish the useful life of a public building at 50 years.

At the August 17, 2021 Board meetings, staff provided an update regarding the progress of the NMWD Headquarters Upgrade Project by Noll & Tam Architects (N&T) and the District's Building Committee. The current schedule, as presented at the August meeting, anticipates a February 2022 milestone for the Board to approve the advertisement of the project for bidding. During the meeting members of the Board expressed concerns about the Project's expenditure considering the the current drought and the possible need to divert investments to securing new sources of water supply. The Board expressed the need to re-evaluate moving forward with the Project in February and possibly delaying the advertisement for construction.

There are several other Project actions that are scheduled to occur ahead of the planned February advertisement for construction bidding. The timing of these actions is critical to the success of combining the original Phase 1 and Phase 2 into a single construction phase which would reduce the overall construction time by approximately 9 months as well as reduce construction cost by approximately $900,000. Combining the phases will also likely have an overall reduction in soft costs as well (field inspections, CM, etc.). The Project actions include signing a lease for commercial office space during the construction period; securing project financing; submission of a building permit application; applying for new gas and electrical service from PG&E; and others. These actions are highly dependent on actually moving forward with the construction phase of the project and would be difficult and costly to reverse course. Accordingly, the Board will likely need to make decisions at several key milestones and earlier than February

2022 regarding a possible pause on the Project. The following key milestones are presented for the Board's information:

| Project Action or Task | Current Milestone | Notes | What's at risk* |
|---|---|---|---|
| Payment to PG&E for new service | October 2021 | PG&E Designs the new service | Minimal risk for the design; ordering long lead items |
| Submit Building Permit Application | Late November 2021 | with City of Novato | Permit expiration before construction begins |
| Commercial Space Lease (execution) | Early January 2022 | Sign lease; move in April | Office space availability; acceptable lease terms |
| Initiate Project Financing | Late January 2022 | ~3 months required | Secured financing |
| *Board Approves Project for Advertisement* | *February 15, 2022* | *Previously discussed decision point* | |

*Assumes that the project is only temporarily delayed.

The next phase of the Project design is currently moving forward which consists of the development of Construction Documents, including plans, technical specifications, and bidding documents. An application for new electrical and gas service was sent to PG&E on August 23, 2021. Discussions with the Wood Hollow Office property managers is ongoing to finalize the temporary space needed for the Project's construction period and to prepare for an eventual lease agreement continue, as well as discussions with Novato Sanitary District regarding temporary laboratory space. Staff and the construction management team are also developing a comprehensive cost estimate for all the soft costs associated with the project.

RECOMMENDATION

Give direction to staff on the identified Pre-Construction action item timing.

# 10

**MEMORANDUM**

To: Board of Directors Date: September 3, 2021

From: Tony Williams, Chief Engineer/Assistant GM
Avram Pearlman, Assistant Engineer

Subject: Approve Freyer & Laureta, Inc. Consultant Services Agreement for Hydropneumatic Stations Engineering and Design Services
\\nmwdserver1\Engineering\Folders by Job No\7000 jobs\7170 Hydropneumatic Tank Repairs\BOD Memos\Consultant Award\7170 Hydropneumatic Consult Services Agreement 09.07.2021 BOD.doc

**RECOMMENDED ACTION:** Authorize General Manager to execute an agreement with Freyer & Laureta, Inc. for Hydropneumatic Pressure Station Engineering and Design Services Project

**FINANCIAL IMPACT:** $98,600 (included in the current FY2021/22 budget)

Background

The District owns and operates seven hydropneumatic pressure stations within the Novato Service Area as detailed in the table below. These stations typically consist of a buried pressure vessel (tank) located within a vault or direct burial, and associated piping and appurtenances served by a remote pumping station. The sites are located in areas that cannot be easily served by the normal pressure zones within the District's Novato Service Area. The last District approved hydropneumatic system was installed in 1985 but some stations date back to late 1950's early 1960's. Due to the high maintenance and operational complexities of these systems, the District position is that no additional hydropneumatic systems shall be permitted in the Service Area, and elimination or modifications of existing systems is desirable. A detailed table of the stations is included below and an overall site map is provided as Attachment 1.

**NMWD Hydro-Pneumatic Systems (Novato Service Area)**

| System | Tank Size (Gallons) | Number of Tanks | Average Day Demand (GPD) | Tank Elevation (ft) | Pump Elevation (ft) | Year Built |
|---|---|---|---|---|---|---|
| Hayden | 3,500 | 2 | 11,500 | 165 | 65 | 1963 |
| Diablo Hills | 2,000 | 1 | 3,500 | 65 | 25 | 1985 |
| Eagle Drive | 4,000 | 2 | 17,600 | 315 | 160 | 1959 |
| Bahia | 3,000 | 1 | 30,700 | 290 | 238 | 1970 |
| San Marin East* | 3,000 | 1 | 7,900 | 235 | 235 | 1980 |
| Indian Hills | 6,000 | 1 | 6,200 | 292 | 215 | 1982 |
| Garner | 4,200 | 1 | 5,500 | 462 | 462 | 1985 |

*sometimes referred to as Rockrose Station

The District released a Request for Proposals (RFP) on July 7, 2021 which was posted on the District's website as well as posted on an online electronic "bid board". Proposals were due on

July 29, 2021. A total of two (2) proposals were received and evaluated by a review panel consisting of five District employees. The review was based on the following criteria and associated numeric scoring system: Personnel Qualifications and Experience, Team Organization, Project Approach, Labor Hours, Standard Rate Schedule, and Contract Compliance (total of 100 points for all criteria). The results of the ranking below:

**Proposal Firms and Ranking**

| Engineering Consultant | Office Submitting | Overall Rank |
|---|---|---|
| Freyer & Laureta, Inc. | San Francisco | 1 |
| GHD | Santa Rosa | 2 |

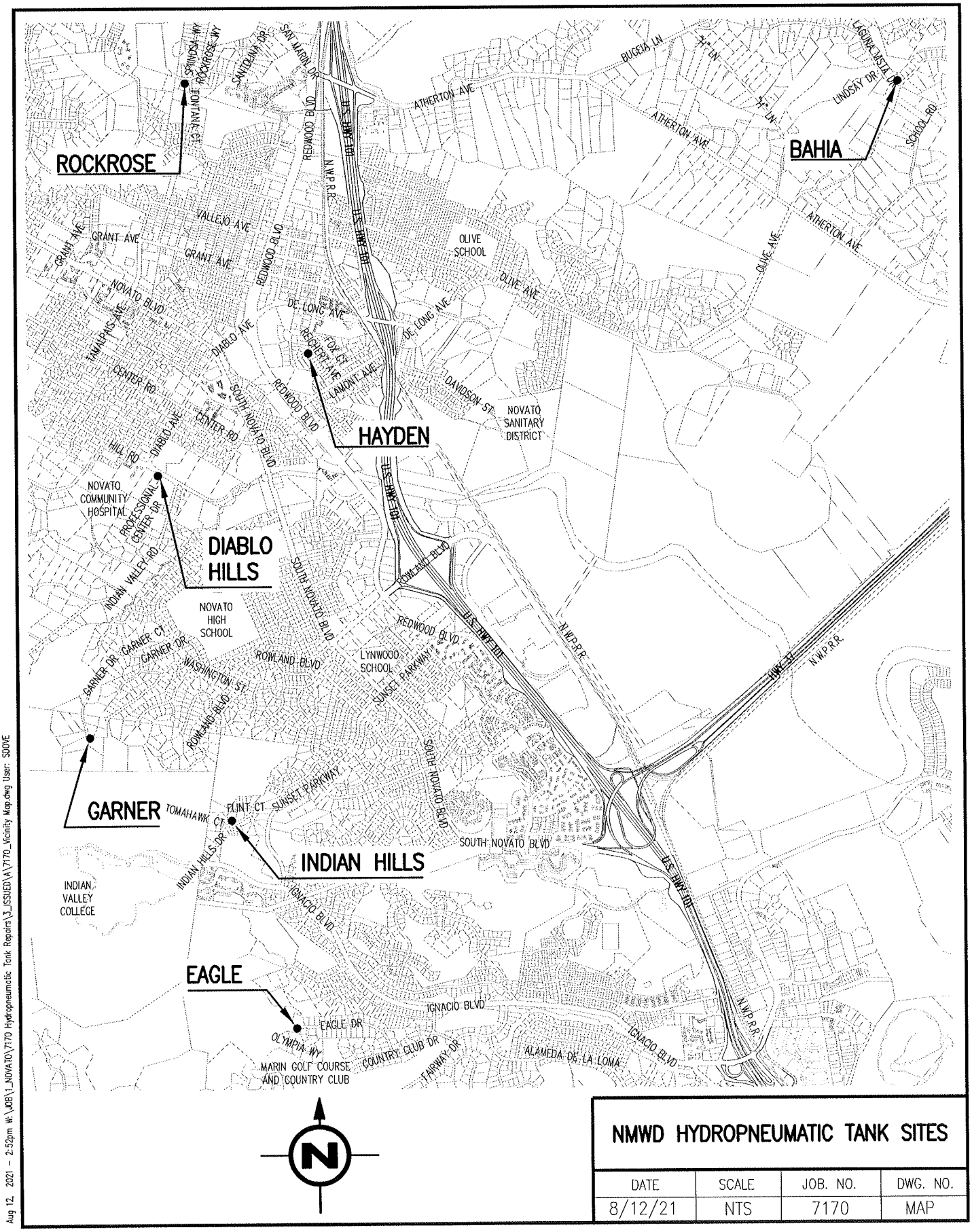
The two firms were scored very closely, and follow up with listed references for both firms was useful in the final scoring. In addition, the proposed Freyer & Laureta. Inc. (F&L) team's project manager is a Novato resident. Discussions with the higher ranked firm, F&L, were conducted during the week of August 16 to establish a final scope of services required for the project and associated fee. The scope includes an optional task to develop a final design, including construction plans and specifications for the site ranked highest priority. Staff will return to the Board to authorize this optional task as more details are determined.

Consulting Agreement

Staff recommends the District engage with F&L to provide the required engineering services and complete a comprehensive engineering assessment of the existing hydropneumatic systems; develop a priority rank for improvements; and develop a concept design for the top 3 priority sites. Staff has thoroughly reviewed the attached agreement (Attachment 2), including F&L's scope of services, schedule and fee and is seeking approval from the Board of Directors to proceed. F&L is an experienced engineering firm with this type of assessment and has considered District needs while assembling a team to perform the work.

RECOMMENDATION

The Board authorize the General Manager to execute an agreement with F&L for a not to exceed fee of $98,600 to be charged on an approved hourly basis.




# NMWD HYDROPNEUMATIC TANK SITES

| DATE | SCALE | JOB. NO. | DWG. NO. |
|---|---|---|---|
| 8/12/21 | NTS | 7170 | MAP |

Aug 12, 2021 - 2:52pm W:\JOB\1_NOVATO\7170 Hydropneumatic Tank Repairs\3_ISSUED\A\7170_Vicinity Map.dwg User: SDOVE

ATTACHMENT 1

## AGREEMENT FOR CONSULTING SERVICES

The following is an agreement between **North Marin Water District**, hereinafter "**NMWD**", and **Freyer & Laureta, Inc.**, hereinafter, "**Consultant**".

**WHEREAS**, Consultant is a duly qualified consulting firm, experienced in the engineering and design of infrastructure improvements.

**WHEREAS**, in the judgment of the Board of Directors of the NMWD, it is necessary and desirable to employ the services of the Consultant to provide engineering and design services for hydropneumatic pump stations.

**NOW, THEREFORE**, in consideration of the mutual covenants contained herein, the parties hereto agree as follows:

### PART A -- SPECIFIC PROVISIONS:

**1. DESCRIPTION OF SERVICES AND PAYMENT:** Except as modified in this agreement, the services to be provided and the payment schedule are:

a. The scope of work and fee amount covered by this agreement shall be that specified Attachment A.

b. The fee for the work shall be on a time and expense (T & E) basis utilizing the fee schedule included in Attachment B of this agreement and shall not exceed $98,600 without prior written authorization by NMWD.

### PART B -- GENERAL PROVISIONS

**1. ASSIGNMENT/DELEGATION:** Except as above, neither party hereto shall assign, sublet or transfer any interest in or duty under this agreement without written consent of the other, and no assignment shall be of any force or effect whatsoever unless and until the other party shall have so consented.

**2. STATUS OF CONSULTANT:** The parties intend that the Consultant, in performing the services hereinafter specified, shall act as an independent contractor and shall have the control of the work and the manner in which it is performed. The Consultant is not to be considered an agent or employee of NMWD, and is not entitled to participate in any pension plan, insurance, bonus or similar benefits NMWD provides its employees.

**3. INDEMNIFICATION:** NMWD is relying on the professional ability and training of the Consultant as a material inducement to enter into this agreement. The Consultant hereby warrants that all its work will be performed in accordance with generally accepted professional practices and standards, as well as the requirements of applicable federal, state and local laws, it being understood that neither acceptance of the Consultant's work by NMWD nor Consultant's failure to perform shall operate as a waiver or release.

a. With respect to design professional services provided under this agreement, Consultant shall assume the defense of and defend NMWD, its directors, officers, agents, and employees in any action at law or in equity to the extent that liability is claimed or alleged to arise out of, pertain to, or relate to, either directly or indirectly, the intentional or willful misconduct, recklessness, or negligent act, error, or omission of Consultant (or any

person or organization for whom Consultant is legally liable) in the performance of the activities necessary to perform the services for District and complete the task provided for herein. In addition, Consultant shall indemnify, hold harmless, and release NMWD, its directors, officers, agents, and employees from and against any and all actions, claims, damages, disabilities or expenses, including attorney's fees and witness costs, that may be asserted by any person or entity including the Consultant, to the extent arising out of, pertaining to, or relating to, the negligent acts, errors or omissions, recklessness, or intentional or willful misconduct of the Consultant (or any consultant or subcontractor of Consultant) in connection with the activities necessary to perform the services and complete the task provided for herein, but excluding liabilities due to the sole negligence or willful misconduct of NMWD.

b. With respect to all services other than design professional services provided under this agreement, Consultant shall indemnify, hold harmless, release and defend NMWD, its agents and employees from and against any and all actions, claims, damages, disabilities or expenses, including attorney's fees and witness costs that may be asserted by any person or entity, including the Consultant, arising out of or in connection with the activities necessary to perform those services and complete the tasks provided for herein, but excluding liabilities due to the sole negligence or willful misconduct of NMWD.

This indemnification is not limited in any way by any limitation on the amount or type of damages or compensation payable by or for the NMWD or its agents under workers' compensation acts, disability benefit acts or other employee benefit acts.

**4. PROSECUTION OF WORK:** The execution of this agreement shall constitute the Consultant's authority to proceed immediately with the performance of this contract. Performance of the services hereunder shall be completed by _____, provided, however, that if the performance is delayed by earthquake, flood, high water or other Act of God or by strike, lockout or similar labor disturbance, the time for the Consultant's performance of this contract shall be extended by a number of days equal to the number of days the Consultant has been delayed.

**5. METHOD AND PLACE OF GIVING NOTICE, SUBMITTING BILLS AND MAKING PAYMENTS:** All notices, bills and payment shall be made in writing and may be given by personal delivery or by mail. Notices, bills and payments sent by mail should be addressed as follows:

North Marin Water District
P.O. Box 146
Novato, CA 94948
Attention: Tony Williams

Consultant:
Freyer & Laureta, Inc.
150 Executive Park Blvd., Suite 4200
San Francisco, CA 94134
Attention: Jeffrey Tarantino

and when so addressed, shall be deemed given upon deposit in the United States Mail, postage prepaid. In all other instances, notices, bills and payments shall be deemed given at the time of actual delivery. Changes may be made in the names and addresses of the person to whom notices, bills and payments are to be given by giving notice pursuant to this paragraph.

6. **MERGER:** This writing is intended both as the final expression of the agreement between the parties hereto with respect to the included terms of the agreement, pursuant to California Code of Civil Procedure Section 1856 and as a complete and exclusive statement of the terms of the agreement. No modification of this agreement shall be effective unless and until such modification is evidenced by a writing signed by both parties.

7. **SEVERABILITY:** Each provision of this agreement is intended to be severable. If any term of any provision shall be determined by a court of competent jurisdiction to be illegal or invalid for any reason whatsoever, such provision shall be severed from this agreement and shall not affect the validity of the remainder of the agreement.

8. **TERMINATION:** At any time and without cause the NMWD shall have the right in its sole discretion, to terminate this agreement by giving written notice to the Consultant. In the event of such termination, NMWD shall pay the Consultant for services rendered to such date.

9. **TRANSFER OF RIGHTS/OWNERSHIP OF DATA:** The Consultant assigns to NMWD all rights throughout the work in perpetuity in the nature of copyright, trademark, patent, and right to ideas, in and to all versions of any plans and specifications, reports and document now or later prepared by the Consultant in connection with this contract.

The Consultant agrees to take such actions as are necessary to protect the rights assigned to NMWD in this agreement, and to refrain from taking any action which would impair those rights. The Consultant's responsibilities under this contract will include, but not be limited to, placing proper notice of copyright on all versions of any plans and specifications, reports and documents as NMWD may direct, and refraining from disclosing any versions of the reports and documents to any third party without first obtaining written permission of NMWD. The Consultant will not use, or permit another to use, any plans and specifications, reports and document in connection with this or any other project without first obtaining written permission of NMWD.

All materials resulting from the efforts of NMWD and/or the Consultant in connection with this project, including documents, reports, calculations, maps, photographs, computer programs, computer printouts, digital data, notes and any other pertinent data are the exclusive property of NMWD. Re-use of these materials by the Consultant in any manner other than in conjunction with activities authorized by NMWD is prohibited without written permission of NMWD.

Consultant shall deliver requested materials to NMWD in electronic format including but not limited to engineering calculations, plans (AutoCad, current edition) and specifications (MS Word, current edition).

10. **COST DISCLOSURE:** In accordance with Government Code Section 7550, the Consultant agrees to state in a separate portion of any report provided NMWD, the numbers and amounts of all contracts and subcontractors relating to the preparation of the report.

11. **NONDISCRIMINATION:** The Consultant shall comply with all applicable federal, state and local laws, rules and regulations in regard to nondiscrimination in employment because of race, color, ancestry, national origin, religion, sex, marital status, age, medical condition or physical handicap.

12. **EXTRA (CHANGED) WORK:** Extra work may be required. The Consultant shall not proceed nor be entitled to reimbursement for extra work unless it has been authorized, in writing, in advance, by NMWD. The Consultant shall inform the District as soon as it determines work beyond

the scope of this agreement may be necessary and/or that the work under this agreement cannot be completed for the amount specified in this agreement. Said review shall occur before consultant incurs 75% of the total fee approved for any phase of the work. Failure to notify the District shall constitute waiver of the Consultant's right to reimbursement.

**13. CONFLICT OF INTEREST:** The Consultant covenants that it presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of its services hereunder. The Consultant further covenants that in the performance of this contract no person having any such interest shall be employed.

**14. INSURANCE REQUIREMENTS FOR CONSULTANTS**

Consultant shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the consultant, his agents, representatives, employees or subcontractors.

**Minimum Scope of Insurance**

Coverage shall be at least as broad as:

1. Commercial General Liability coverage
2. Automobile Liability
3. Workers' Compensation insurance as required by the State of California.
4. Professional Liability insurance appropriate to the consultant's profession. Architects' and engineers' coverage is to be endorsed to include contractual liability.

**Minimum Limits of Insurance**

Consultant shall maintain limits no less than:

1. General Liability (including operations, products and completed operations.): **$1,000,000** per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.
2. Automobile Liability: **$1,000,000** per accident for bodily injury and property damage.
3. Workers' Compensation Insurance: as required by the State of California.
4. Professional Liability, **$1,000,000** per occurrence.

**Verification of Coverage**

Consultant shall furnish the District with original certificates and amendatory endorsements effecting coverage required by this clause. All certificates and endorsements are to be received and approved by the District before work commences. The District reserves the right to require at any time complete and certified copies of all required insurance policies, including endorsements affecting the coverage required by these specifications.

**Subcontractors**

Consultant shall include all subcontractors as insureds under its policies or *shall furnish separate certificates and endorsements for each subcontractor to the District for review and approval.* All coverage for subcontractors shall be subject to all of the requirements stated herein.

**Self-Insured Retentions**

Any self-insured retentions must be declared to and approved by the District. At the option of the District, either: the insurer shall reduce or eliminate such self-insured retentions as respects the District, its officers, officials, employees and volunteers; or the Consultant shall provide a financial guarantee satisfactory to the District (such as a surety bond) guaranteeing payment of losses and related investigations, claim administration, and defense expenses.

**Other Insurance Provisions**

The commercial general liability and automobile liability policies are to contain, or be endorsed to contain, the following provisions:

1. The District, its officers, officials, employees, and volunteers are to be covered as insureds with respect to liability arising out of automobiles owned, leased, hired or borrowed by or on behalf of the Consultant.

2. For any claims related to this project, the Consultant's insurance coverage shall be primary insurance as respects the District, its officers, officials, employees, and volunteers. Any insurance or self-insurance maintained by the District, its officers, officials, employees, or volunteers shall be excess of the Consultant's insurance and shall not contribute with it.

3. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be canceled by either party, except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the District.

**Acceptability of Insurers**

Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII.

**15. DISPUTE RESOLUTION:** Any dispute or claim in law or equity between District and Consultant arising out of this agreement, if not resolved by informal negotiation between the parties, shall be mediated by referring it to the nearest office of Judicial Arbitration and Mediation Services, Inc. (JAMS) for mediation. Mediation shall consist of an informal, non-binding conference or conferences between the parties and the judge-mediator jointly, then in separate caucuses wherein the judge will seek to guide the parties to a resolution of the case. If the parties cannot agree to mutually acceptable member from the JAMS panel of retired judges, a list and resumes of available mediators numbering one more than there are parties will be sent to the parties, each of whom will strike one name leaving the remaining as the mediator. If more than one name remains, JAMS arbitrations administrator will choose a mediator from the remaining names. The mediation process shall continue until the case is resolved or until such time as the mediator makes a finding that there is no possibility of resolution.

At the sole election of the District, any dispute or claim in law or equity between District and Consultant arising out of this agreement which is not settled through mediation shall be decided by neutral binding arbitration and not by court action, except as provided by California law for judicial review of arbitration proceedings. The arbitration shall be conducted in accordance with the rules of Judicial Arbitration Mediation Services, Inc. (JAMS). The parties to an arbitration may agree in writing to use different rules and/or arbitrators.

**16. BILLING AND DOCUMENTATION:** The Consultant shall invoice NMWD for work performed on a monthly basis and shall include a summary of work for which payment is requested. The invoice shall state the authorized contract limit, the amount of invoice and total amount billed to

date. The summary shall include time and hourly rate of each individual, a narrative description of work accomplished, and an estimate of work completed to date.

**17. REASONABLE ASSURANCES:** Each party to this agreement undertakes the obligation that the other's expectation of receiving due performance will not be impaired. When reasonable grounds for insecurity arise, with respect to performance of either party, the other may, in writing, demand adequate assurance of due performance and until the requesting party receives such assurance may, if commercially reasonable, suspend any performance for which the agreed return has not been received. "Commercially reasonable" includes not only the conduct of the party with respect to performance under this agreement but also conduct with respect to other agreements with parties to this agreement or others. After receipt of a justified demand, failure to provide within a reasonable time, not to exceed 30 days, such assurance of due performance as is adequate under the circumstances of the particular case is a repudiation of this agreement. Acceptance of any improper delivery, service, or payment does not prejudice the aggrieved party's right to demand adequate assurance of future performance.

**18. PREVAILING WAGE REQUIREMENTS:** Prevailing Wage Rates apply to all Consultant personnel performing work under the Agreement for which wage determinations have been made by the Director of Industrial Relations pursuant to California Labor Code Sections 1770– 1782,. Consultant shall comply with all applicable prevailing wage labor code requirements.

**NORTH MARIN WATER DISTRICT**
**"NMWD"**

Dated: _____

_____
Drew McIntyre, General Manager

**FREYER & LAURETA, INC.**
**"CONSULTANT"**

Dated: _____

_____

## BASE SCOPE OF WORK

F&L will provide the following tasks:

Task 1 - Project Management:

F&L will provide overall project management for the team including coordination with the District. We will coordinate review meetings to discuss the review comments and receive feedback on the deliverables. This task includes preparing and submitting progress reports with each monthly invoice summarizing the work accomplished during the billing period, the work to be accomplished in the upcoming billing period, critical issues requiring resolution, and budget status.

*Deliverables*

1. Monthly progress reports
2. Monthly invoices
3. Meeting agendas and minutes

*Key Task Assumptions*

1. Invoices will be issued monthly
2. All documents will be provided in electronic PDF format only.

Task 2 – Engineering Assessment:

The F&L team will perform a review and assessment of the physical existing site conditions and available documentation, as well as interviews with the District Operations and Maintenance staff. If necessary, the task may include inspections using remote camera or other techniques to review conditions within the facilities that have limited access.

The F&L team will evaluate the feasibility of four potential alternatives at each site including:

1. Zone consolidation;
2. New gravity storage tank;
3. Existing pump station modifications/enhancements, and;
4. Replacing existing facilities with VFD package system.

The F&L team will develop assessment ranking criteria based on existing conditions at each site. Prior to the site visits, the F&L team will meet with the District to review the evaluation approach including the ranking criteria. The purpose of the initial meeting will be to establish through collaboration an evaluation methodology that will allow the F&L team to provide the District with a comprehensive existing conditions summary.

The site visit findings, assessment ranking criteria, and results will be documented in a draft technical memorandum. The draft memorandum will be submitted to the District and the F&L team will present the results to the District at a Technical Review Workshop. The workshop will be chaired and facilitated by our project manager. The workshop will provide a critical forum for the F&L team and District staff to review the existing conditions, discuss rankings, and develop a consensus of the potential challenges at each site to inform the selection of the preferred solutions.

*Deliverables*

1. Field assessment forms;
2. Ranking criteria review meeting agenda and minutes;
3. Draft Engineering Assessment Technical Memorandum
4. Engineering Assessment Review Workshop agenda and minutes

*Key Task Assumptions*

1. District will provide all available as-builts and GIS files (SHAPE FILE)
2. District will assist F&L to obtain publicly available topographic information from Marin maps website[1]
3. District will attend site visit with the F&L team
4. All submittals will be provided in electronic PDF format and provide ACAD Civil3D and GIS files by request.
5. District review will be completed within three-weeks from date submittal is received

Task 3 - Concept Design:

Following the Engineering Assessment Review Workshop, the F&L team will prepare conceptual level design for the three top priority ranked sites as agreed upon by the District. Conceptual design development will:

- Identify any abandonment of facilities needed
- Identify any necessary new site locations or required real estate for expansion or relocation of existing facilities.
- Site plan using aerials and available topographic information
- Yard piping plan including identifying potential points of connection;
- Necessary details
- Conceptual Opinion of Probable Construction Cost

The F&L team will prepare a desktop geotechnical study to identify any potential geologic conditions that may result in more complex and/or challenging construction. Based on our

[1] Https://www.marinmap.org

experience, a simple desktop study early in the design phase will allow the team to confirm whether there are any existing site conditions that warrant further field investigation during the final design phase.

The F&L team will submit the draft conceptual design to the District for review. We will coordinate and facilitate a conceptual design workshop with District staff to review and discuss the proposed improvements for each of the three critical sites.

*Deliverables*

1. Draft Conceptual Design
2. Draft Desktop Geotechnical Study
3. Conceptual Design Workshop agenda and minutes

*Key Task Assumptions*

1. District will provide all District standard details in ACAD Civil3D compatible format
2. All submittals will be provided in electronic PDF format and provide ACAD Civil3D and GIS files by request.
3. District review will be completed within three-weeks from date submittal is received

Task 4 - Technical Report:

The F&L team will finalize the Engineering Assessment Memorandum by incorporating the conceptual design completed under Task 3. The final Engineering Assessment Memorandum will provide suggested timeline to replace or upgrade the remaining four sites including alternative solutions. The final memorandum will include a site ranking and an evaluation of potential cost-benefit for each of the seven sites. The analysis will consider both reduced and increased operational costs depending on the preferred solution for each of the sites.

We will provide a Final Draft Engineering Assessment Memorandum for the District's final review. We will participate in a conference call with District to review any remaining comments and questions before issuing the final memorandum. The memorandum will include, at a minimum, the following sections:

- Executive Summary,
- Basis of Design Project Goals,
- Existing Conditions,
- Alternative Analysis, Recommendations,
- Opinion of Probable Project Cost (including all assumptions and exclusions)
- Proposed Construction Schedule,
- Proposed SCADA/Power Requirements and Availability, and

- Potential CEQA Concerns.

*Deliverables*

1. Final Draft Engineering Assessment Memorandum
2. Conference Call agenda and minutes
3. Final Engineering Assessment Memorandum

*Key Task Assumptions*

1. District will provide all District standard details in ACAD Civil3D compatible format
2. All submittals will be provided in electronic PDF format and provide ACAD Civil3D and GIS files by request.
3. District review will be completed within three-weeks from date submittal is received

## OPTIONALSCOPE OF WORK

F&L will provide the following task:

Task 5 – Design Services for Priority Site:

The design services task for the priority site is an optional task at the discretion of the District and would only be awarded as an amendment upon the completion of the tasks above. This task includes development of plans, specifications and cost estimate (PS&E) for the top priority hydro-pneumatic station under a 65%, 90% and Final design sequence.

- 65% Design: The initial task will include a complete set of plan sheets for layouts, piping, and details; technical specifications; and an Opinion of Probable Construction Cost (OPC) including a list of bid items.
- Final PS&E: After comments are received from the 65% design submittal, the F&L team will prepare the final plans and specifications to be included as part of the final construction documents for bidding purposes. The Final PS&E will include updates to all plans, technical specifications, and OPC. The District will perform the actual bidding process.

The Project engineering and design work will comply with all applicable federal, state and local regulatory requirements and be consistent with applicable District standards. The F&L team will develop technical specifications consistent with the 16-division CSI format and will review the District prepared "front-end" specifications (Divisions 0 and 1).

The F&L Team will prepare for and facilitate one design review workshop with the District staff following the 65% Design submittal. The purpose of the workshop is to allow the F&L team to present the design to the District staff, discuss questions and comments, and allow

collaborative resolution of any comments and questions. For more complex comments, the F&L team will document the District's comments in the minutes and provide responses with the Final PS&E submittal.

The optional design task is based on a partial modification to the highest priority facility to be identified as part of Task 4. The design services approach and cost may be slightly different if the package pump station option is the preferred option. In this case, the package system is generally predesigned by the manufacturer based on performance requirements developed by the F&L team. The design process may involve the District selecting a few manufacturers as pre-approved vendors for the station. The vendor would design the station based on performance standards in the specifications. This would also simplify construction and reduce costs as the station arrives at the site as a complete unit and is installed by the contractor.

*Deliverables*

1. 65% Design Submittal
2. 65% Design Submittal Workshop agenda and minutes
3. Final Design Submittal

*Key Task Assumptions*

1. Technical Specifications will use the 16 Division Construction Specification Institute Format.
2. District will prepare Division 0 and Division 1 specifications and will provide to F&L for review as part of the 65% Design Submittal review comments.
3. All submittals will be provided in electronic PDF format only with the exception of the Final Design Technical Specifications will be provided in MS Word format.
4. District review will be completed within three-weeks from date submittal is received

## SCHEDULE

F&L proposes to provide both the Base Scope of Work and Optional Scope of Work described above based on the milestone dates presented in the following table. The proposed schedule allows the District three-week review period following each major submittal.

| Task | Duration | Milestone Date |
|---|---|---|
| Notice to Proceed | N/A | September 20, 2021 |
| Task 1: Project Management | On-going for contract duration | N/A |
| Task 2: Engineering Assessment Memorandum | 4 weeks following NTP | October 18, 2021 |
| Task 3: Conceptual Design Memorandum | 6 weeks following Engineering Assessment Workshop | December 20, 2021 |
| Task 4: Technical Report | 2 weeks following Conceptual Design Workshop | January 24, 2022 |
| Task 5.1: 65% Design (Optional) | 8 weeks following Technical Report approval | April 11, 2022 |
| Task 5.2: Final Design (Optional) | 4 weeks following 65% Design Review Workshop | May 30, 2022 |

## BASE SCOPE OF WORK COMPENSATION

F&L proposes to provide the Base Scope of Services described above on a time and materials basis in accordance with our current Charge Rate Schedule dated July 1, 2021 for a not-to-exceed fee of $98,600. Table 1 attached to this proposal includes a summary of estimated hours by task and billing classification.

## OPTIONAL SCOPE OF WORK COMPENSATION

If authorized by the District, F&L proposes to provide the Optional Scope of Services for a not-to-exceed fee of $61,200 for Task 5. Table 2 attached to this proposal includes a summary of estimated hours by task and billing classification.

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

Sincerely,

**FREYER & LAURETA, INC.**

Jeffrey J. Tarantino, P.E.
Vice President

Attachments

Table 1: Base Scope of Work Budget Estimate for Hydro-Pneumatic Tank Project
Table 2: Optional Scope of Work Budget Estimate for Hydro-Pneumatic Tank Project
Freyer & Laureta, Inc. Charge Rate Schedule dated January 1, 2021

**TABLE 1**
**BASE SCOPE OF WORK BUDGET ESTIMATE FOR HYDRO-PNEUMATIC TANK PROJECT**
North Marin Water District

| TASKS | ESTIMATED LABOR (Hours) (1) | | | | | | | | | TOTAL LABOR COST ($) | OTHER DIRECT COSTS | | | | ESTIMATED COST (2) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | F&L | | | | CEG | | | BE | AH | | UNIT | QNTY | UNIT COST ($) | 10% MARKUP ($) | TOTAL COST PER ITEM ($) | SUB TOTALS ($) |
| | Clerical | Staff Engineer II | Associate Engineer | Principal | GIS/CADD | Project Engineer/Geologist | Principal Engineer | Project Manager | Principal | | | | | | | |
| | 90 | 135 | 170 | 235 | 143 | 182 | 270 | 220 | 231 | | | | | | | |
| **Task 1: Project Management** | | | | | | | | | | | | | | | | |
| Meeting Preparation and Presentations | | | 4 | 4 | | | | | 6 | $3,006 | | | | | $3,006 | |
| Progress Reports and Invoicing | 8 | | 4 | 4 | | | | | | $2,340 | | | | | $2,340 | |
| Coordination with District | | | | 4 | | | | | | $940 | | | | | $940 | |
| Subtotal Labor Hours - Task 1 | 8 | | 8 | 12 | | | | | 6 | **$6,286** | Estimated Cost - Task 1 | | | | | **$6,300** |
| **Task 2: Engineering Assessment** | | | | | | | | | | | | | | | | |
| Develop Assessment Ranking Criteria | | 16 | 4 | 2 | | | | 4 | 8 | $6,038 | | | | | $6,038 | |
| Ranking Criteria Review Meeting | | | 2 | 2 | | | | 2 | 8 | $3,098 | | | | | $3,098 | |
| Pump Station Site Visits | | 8 | 8 | | | | | 8 | 8 | $6,048 | | | | | $6,048 | |
| Development of Pressure Zone Mapping Figures | | 40 | 8 | | | | | | 24 | $12,304 | | | | | $12,304 | |
| Prepare Draft Engineering Assessment Memorandum | | 40 | 20 | | | | | 4 | 8 | $11,528 | | | | | $11,528 | |
| Engineering Assessment Workshop | | | 4 | 2 | | | | | 8 | $2,998 | | | | | $2,998 | |
| Internal Review | | | | 4 | | | | | | $940 | | | | | $940 | |
| Subtotal Labor Hours - Task 2 | | 104 | 46 | 10 | | | | 18 | 64 | **$42,954** | Estimated Cost - Task 2 | | | | | **$43,000** |
| **Task 3: Conceptual Design** | | | | | | | | | | | | | | | | |
| Conceptual Level Design (three sites) | | 40 | 24 | | | | | 12 | 16 | $15,816 | | | | | $15,816 | |
| Desktop Geological Study | | | 2 | | 8 | 16 | 4 | | | $5,466 | | | | | $5,466 | |
| Prepare Conceptual Design Memorandum | | 40 | 24 | 2 | | | | 4 | | $10,830 | | | | | $10,830 | |
| Conceptual Design Workshop | | | 4 | 4 | | | | | | $1,620 | | | | | $1,620 | |
| Internal Review | | | | 4 | | | | | | $940 | | | | | $940 | |
| Subtotal Labor Hours - Task 3 | | 80 | 54 | 10 | 8 | 16 | 4 | 16 | 16 | **$34,672** | Estimated Cost - Task 3 | | | | | **$34,700** |
| **Task 4: Technical Report** | | | | | | | | | | | | | | | | |
| Prepare Draft Final Engineering Assessment Memorandum | | 24 | 20 | | | | | 4 | 8 | $9,368 | | | | | $9,368 | |
| Final Engineering Assessment Conference Call | | | 2 | 2 | | | | | 4 | $1,734 | | | | | $1,734 | |
| Prepare Final Engineering Assessment Memorandum | | 8 | 4 | | | | | 2 | 4 | $3,124 | | | | | $3,124 | |
| Internal Review | | | | 2 | | | | | | $470 | | | | | $470 | |
| Subtotal Labor Hours - Task 4 | | 32 | 26 | 4 | | | | 6 | 16 | **$14,696** | Estimated Cost - Task 4 | | | | | **$14,700** |
| **Total Labor Hours** | **8** | **216** | **134** | **36** | **8** | **16** | **4** | **40** | **102** | **$98,608** | **Total Estimated Cost** | | | | | **$98,600** |

**Notes to Table:**
(1) Billing rates for subconsultants includes 10% markup.
(2) Estimated costs are rounded to the nearest $100.

ATTACHMENT B

FREYER & LAURETA, INC. CIVIL ENGINEERS • SURVEYORS • CONSTRUCTION MANAGERS

# CHARGE RATE SCHEDULE

*Effective 1/1/21*

**Professional and technical services** of Freyer & Laureta, Inc. Staff are provided on a fixed fee or an hourly rate basis as follows:

### FIXED FEE

Where a definitive scope of work can be established, many of our clients prefer that a specific fee be agreed upon in advance. Billings are submitted monthly based upon percent complete as of the last accounting day of the month.

### HOURLY RATE

Applicable to Plan Preparation, Design and Report services where the scope of work must remain open. Freyer & Laureta, Inc. utilizes the following hourly charge rate basis for billing purposes.

| | |
|---|---|
| Production Aide - Clerical | $ 90.00 |
| Drafter I - Technical Typist - Survey Tech II | $ 95.00 |
| Drafter II - Word Processor | $100.00 |
| Engineering Tech I - Drafter III | $ 110.00 |
| Staff Engineer I - Engineering Tech II - Survey Tech III | $ 130.00 |
| Staff Engineer II - Engineering Tech III - Survey Tech IV | $ 135.00 |
| Staff Engineer III - Senior Engineering Tech | $ 140.00 |
| Staff Engineer IV - Survey Tech V – Construction Inspector | $ 155.00 |
| Associate Engineer - Associate Surveyor (L.L.S.) | $ 170.00 |
| Senior Engineer - Construction Manager | $ 180.00 |
| Senior Construction Inspector | $ 180.00 |
| Project Manager – Principal Surveyor (L.L.S.) | $ 195.00 |
| Senior Project Manager – Principal Surveyor (L.L.S) | $ 210.00 |
| Associate Principal | $ 220.00 |
| Principal | $ 235.00 |
| Forensic Engineering | $ 330.00 |
| Deposition and Court Appearance | $ 415.00 |

Subconsultant, Reproduction, Printing, Travel, Mailing and Delivery - Cost plus 10%

**Interest Charge** - Billings are due and payable within 30 days. A monthly interest charge equal to the Federal Discount Rate plus 5% will be applied on the next billing beyond the 30-day payment period.

The foregoing Charge Rate Schedule is incorporated into the Agreement for the Services of Freyer & Laureta, Inc. and may be updated annually.

# 11

**Item #11**

**MEMORANDUM**

To: Board of Directors

September 3, 2021

From: Pablo Ramudo, Water Quality Supervisor PR

Subject: Stafford Lake 2021 Watershed Sanitary Survey
p:\lab\wq supv\2021\memo to board re completed watershed sanitary survey.doc

**RECOMMENDED ACTION:** Accept Stafford Lake Watershed Sanitary Survey

**FINANCIAL IMPACT:** None at this time

Water systems using surface water to supply drinking water are required to conduct watershed sanitary surveys (WSS) of the reservoir's watersheds and update those surveys periodically. The sanitary surveys along with initial source water assessments are used by the California State Water Resources Control Board's Division of Drinking Water to ensure that water treatment is sufficient to remove pathogens and chemical contaminants that may be present and to set monitoring frequencies so that the presence of these contaminants can be adequately determined.

NMWD last conducted a sanitary survey of the Stafford Lake Watershed in 2002. For this update, North Marin Water District contracted with SRT Consultants to conduct the Watershed Sanitary Survey in 2019. Among the detailed findings of the report, it was summarized that "...this WSS indicates that the Stafford Lake watershed carries a low risk of major contamination that would lead to compromised water quality." Through the survey, SRT Consultants make several recommendations to improve watershed management and lower the risks for contamination.

The completed survey will be submitted to the Division of Drinking Water for approval after it is accepted by the Board.

**Recommended Action:** Accept the completed Stafford Lake 2021 Watershed Sanitary Survey.

# STAFFORD LAKE
# 2021 WATERSHED SANITARY SURVEY

*North Marin Water District*

**Prepared by:**

SRT consultants

**August 2021**

**INTRODUCTION** 3

**SECTION 1 - STAFFORD LAKE WATERSHED** 3

**1.1 REGIONAL GEOLOGY** 6

**1.2 SEISMOLOGY** 6

**1.3 SOIL SURVEY** 8

**1.4 LAND USE** 9
1.4.1 HISTORICAL AND EXISTING AGRICULTURAL USE 11
1.4.2 REGULATORY JURISDICTION 11

**1.5 HYDROLOGY** 12

**1.6 NMWD FACILITIES** 14
1.6.1 DAM 14
1.6.2 LAKE INTAKE TOWER 14
1.6.3 LAKE AERATION SYSTEM 14
1.6.4 TREATMENT PLANT 15
1.6.5 SLUDGE DISPOSAL 16
1.6.6 FINISHED WATER STORAGE 16
1.6.7 OTHER SUPPLIES 16
1.6.8 EMERGENCY PLANS 16
1.6.9 OPERATION PLANS 17

**SECTION 2 - WATERSHED SURVEY AND EVALUATION** 18

**2.1 ACTIVITY SURVEY OF WATERSHED PARCELS** 18
2.1.1 NORTH MARIN WATER DISTRICT PROPERTY 18
2.1.2 MARIN COUNTY PARKS AND OPEN SPACE DISTRICT 22
2.1.3 DOMINIC GROSSI RANCH (FORMERLY GEORGE GROSSI & SON DAIRY) 23
2.1.4 JIM GROSSI RANCH 24
2.1.5 CORDA AND DOLCINI RANCHES 25
2.1.6 LONGVIEW STABLES (STABLES) 26
2.1.7 RESIDENTIAL PROPERTIES AT END OF VINEYARD ROAD 26
2.1.8 ROADWAYS 26
2.1.9 DRINKING WATER SOURCE ASSESSMENT REVIEW 27

**2.2 CLASSES OF POSSIBLE CONTAMINATING ACTIVITIES** 28
2.2.1 HUMAN WASTE MANAGEMENT 28
2.2.2 AGRICULTURAL PRACTICES 30
2.2.3 WILDLIFE 32
2.2.4 CHEMICAL USE AND STORAGE 33

2.2.5 RECREATIONAL USE 35
2.2.6 TRANSPORTATION 39
2.2.7 EROSION AND FIRE 41

**SECTION 3 - WATER QUALITY MONITORING PROGRAM 44**

**3.1 RAW LAKE WATER MONITORING 44**
3.1.1 LAKE NUTRIENT MONITORING 44
3.1.2 CRYPTOSPORIDIUM, COLIFORMS, AND TURBIDITY MONITORING 45
3.1.3 OTHER PARAMETERS MONITORED 45

**3.2 TRIBUTARY MONITORING 45**

**3.3 SIGNIFICANT FINDINGS 46**
3.3.1 TRIBUTARY MONITORING RESULTS 46
3.3.2 CRYPTOSPORIDIUM, COLIFORMS, AND TURBIDITY RESULTS 47
3.3.3 OTHER TITLE 22 CONTAMINANTS 48

**SECTION 4 - FINDINGS AND RECOMMENDATIONS 49**

**4.1 SUMMARY OF FINDINGS 49**

**4.2 RECOMMENDATIONS 51**

## LIST OF APPENDICES

A. NMWD WATERSHED MANAGEMENT PLAN
B. NMWD URBAN WATER MANAGEMENT PLAN
C. SOIL MAP
D. PARCEL MAPS AND PLANNING DOCUMENTS
E. STAFFORD LAKE RAINFALL DATA
F. OPERATIONS STAFF AND CERTIFICATIONS
G. NSD HAZARDOUS DISCHARGE PERMIT
H. IVGC PESTICIDE USE REPORTS
I. CALIFORNIA RESTRICTED MATERIALS REQUIREMENTS
J. MCPOSD TRAIL ACCESS AND MANAGEMENT LICENSE AGREEMENT
K. INDIAN TREE PRESERVE MAP
L. STAFFORD LAKE MASTER PLAN
M. 2002 NMWD DRINKING WATER SOURCE ASSESSMENT
N. NMWD GRAZING AND GOLF COURSE LEASES
O. MEMORANDUM TO DISTRICT ATTORNEY
P. MEMORANDUM TO BOARD REGARDING PERCHLORITE DETECTION
Q. MCPOSD WILDLIFE LISTS
R. WATER QUALITY MONITORING DATA 2016-2020
S. CONSUMER CONFIDENCE REPORTS 2015-2020

# Introduction

This document was developed to meet the requirements of the California State Water Resources Control Board (SWRCB) Division of Drinking Water (Division or DDW) regulations for surface water treatment of Stafford Lake, a surface water source serving the North Marin Water District (NMWD). DDW regulations require domestic water suppliers that use a surface water source to conduct a sanitary survey and to update the survey every five (5) years.[1]

This document serves as an update of the 2002 Stafford Lake Watershed Sanitary Survey (WSS), and provides information used to develop watershed management goals and encourage effective management practices. The survey was conducted by SRT Consultants utilizing data developed from the past years of watershed surveillance and monitoring, as well as in-person site visits conducted in 2020. The survey was performed using a combination of literature reviews and interviews of stakeholders, including representatives of local agencies and landowners.

# Section 1 - Stafford Lake Watershed

Stafford Lake is part of the drinking water supply for NMWD, which provides water for 61,000 people in Novato, California. Stafford Lake is located approximately five (5) miles west of Novato (Figure 1). The Stafford Lake watershed is 8.4 square miles in size. The lake was created in 1951 for the purpose of water supply by constructing a dam on Novato Creek, which flows from the highlands between Red Hill and Mount Burdell to San Pablo Bay. Stafford Lake Watershed is part of the larger Novato Creek Watershed; the North Bay Watersheds and the NMWD service areas are shown in Figure 2. The Point Reyes drinking water system and the Oceana Marin wastewater systems operated by North Marin Water District are separate and distinct, and are not served by Stafford Lake. Kennedy Engineers designed both the dam and the Stafford Treatment Plant (STP) that was originally constructed in 1952. The Stafford watershed above the lake consists of hilly grasslands and is, for the most part, undeveloped. The Watershed Management Plan from 2003 is included in Appendix A and the NMWD Urban Water Management Plan from 2015 is included in Appendix B.

[1] The California Surface Water Treatment Rule (SWTR), Title 22, Article 7, 64665 of the California Code of Regulations (CCR) required every public water system using surface water to complete a watershed sanitary survey and update it with any significant changes every five (5) years.

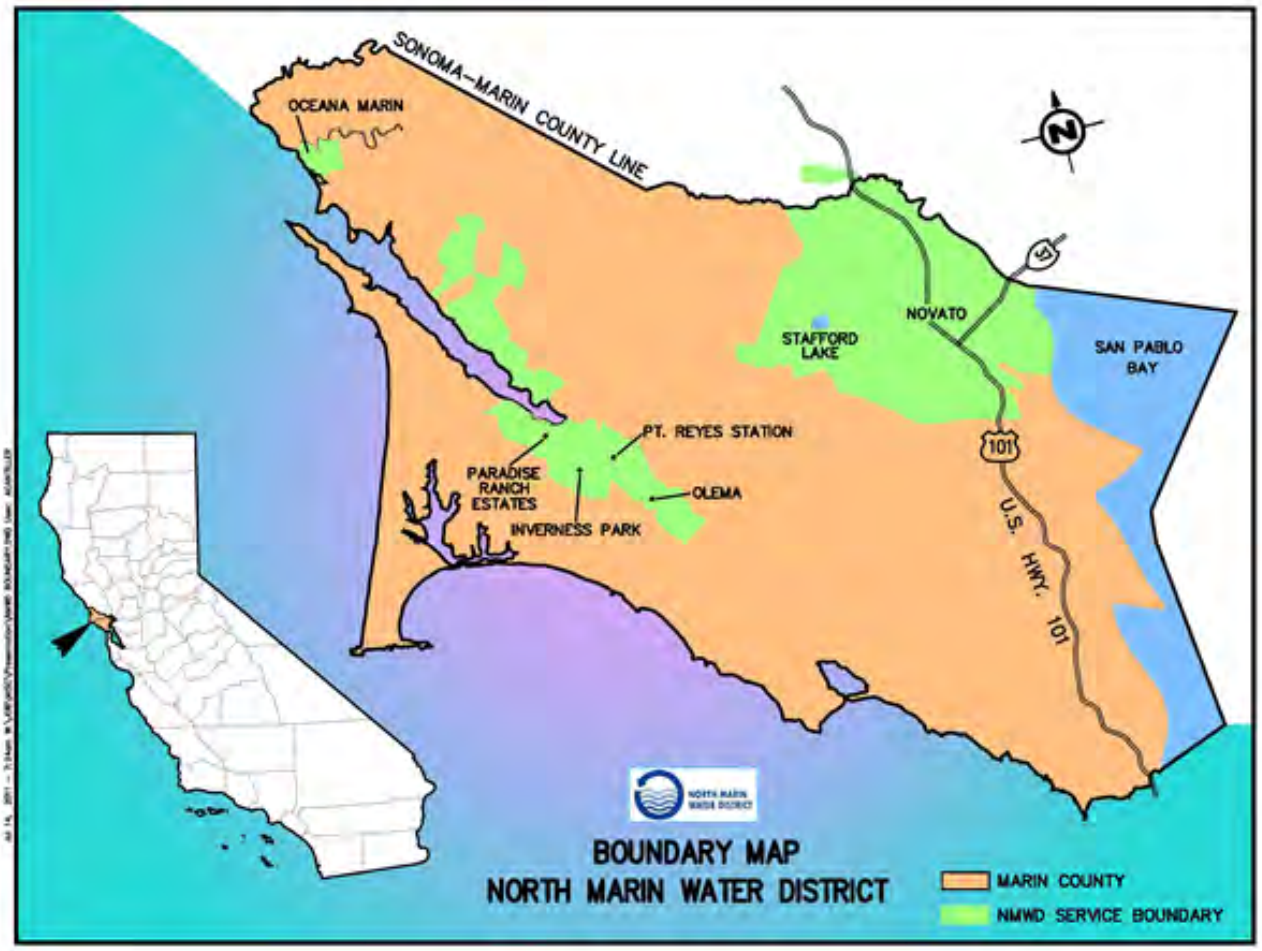



**Figure 1. Stafford Lake Location and Service Area**


**Figure 2. North Bay Watershed Association Map**

## 1.1 Regional Geology

Stafford Lake is located in a small valley within the central portion of the Coastal Mountain range of California. The coastal ranges consist of Franciscan formation rock overlain by Cretaceous and Tertiary sedimentary rocks. The Franciscan formation consists of sedimentary, volcanic and metamorphic rocks that in some areas form a melange due to intense shearing and crushing. During the Mesozoic era, the Franciscan rocks were deposited in a submarine trench off the coast of California. During the late Jurassic and early Cretaceous era, the coastal ranges were formed by uplifting of these sediments. The initial point of deposition of the rocks currently in the Marin County area may have been as far south as Baja California.The varying resistance of the different rock types to shearing and crushing, as they were uplifted and moved laterally, has resulted in the development of the Franciscan Melange. The existing topography is largely the result of the differential erosion rates of these rocks. The metamorphism of most of the original sediments in the area has mixed with volcanics during the same period of geologic time.

The entire area beneath Stafford Lake is underlain by Franciscan formation rocks of a number of types, all of which are variably sheared. The principal rock type is slightly to moderately metamorphosed graywacke sandstone. Other rock types include green stone, metachert, and minor amounts of metaconglomerate. The floor of Stafford Lake is composed of a 45-foot layer of alluvium overlaying Franciscan bedrock in the form of metamorphosed sandstone shale and chert with some inclusions of serpentine (asbestos). The bedrock varies from relatively large, intact, distinguishable blocks of individual rock types to a highly sheered and jumbled melange.[2]

## 1.2 Seismology

There is historical seismic activity In the vicinity of Stafford Lake, and the region generally is subject to three (3) broad categories of seismic risk:

1) Rupture of the ground surface along an active fault;
2) Shaking of the ground caused by the passage of seismic waves through the earth; and
3) Permanent ground surface displacements, such as landslides and subsidence.

Any of these events could potentially be triggered by an earthquake along one of the several faults located in the area (see Figure 3). The closest major faults are:

[2] Regional Geology is provided by the NMWD 2002 WSS.

| Faults | Distance from Stafford |
|---|---|
| San Andreas | 10 miles southwest |
| Hayward | 15 miles southeast |
| Concord | 18 miles east |
| Calaveras | 41 miles southeast |
| Healdsburg - Rodgers Creek | 10 miles northwest |

Other faults in the area include the Burdell Mountain fault zone as well as various small inactive faults and sheer zones. One of these inactive faults is believed to pass through Stafford Lake in a northwest- southeast direction, approximately 500 feet from the dam embankment. No faults or sheer zones are known to underlie the embankment itself.

The dam embankment has been subjected to several relatively large earthquakes with epicenters within about 80 miles of the site. These earthquakes ranged in Richter magnitude from 5.2 to 7.1. There are no records indicating damage or adverse effects to the dam due to any of these earthquakes. Accelerographs located at the dam and the bedrock above have only triggered during the Loma Prieta quake.

In addition to the larger earthquakes, several smaller shocks on the order of magnitude 3 to 4 on the Richter scale have been felt in the area. Various studies conducted for the District have concluded that the Stafford Lake dam is not subject to failure if subjected to an earthquake of magnitude 8.25 on the San Andreas Fault (epicenter 10 miles from the dam site). A study performed in 2015 by Michael Baker International analyzed the risk of inundation for downstream areas in the case of both a breach or an overtopping.[3] No study has been made to determine the stability of the several smaller earthen dams on various ranch properties.

[3] Michael Baker International. (2015). Preparing for the Worst: Stafford Dam Emergency Action Planning and Risk Awareness. https://cdn.ymaws.com/membersfloodplain.site-ym.com/resource/resmgr/2015Conference/Thursday/Preparing-for-the-Worst---Mi.pdf

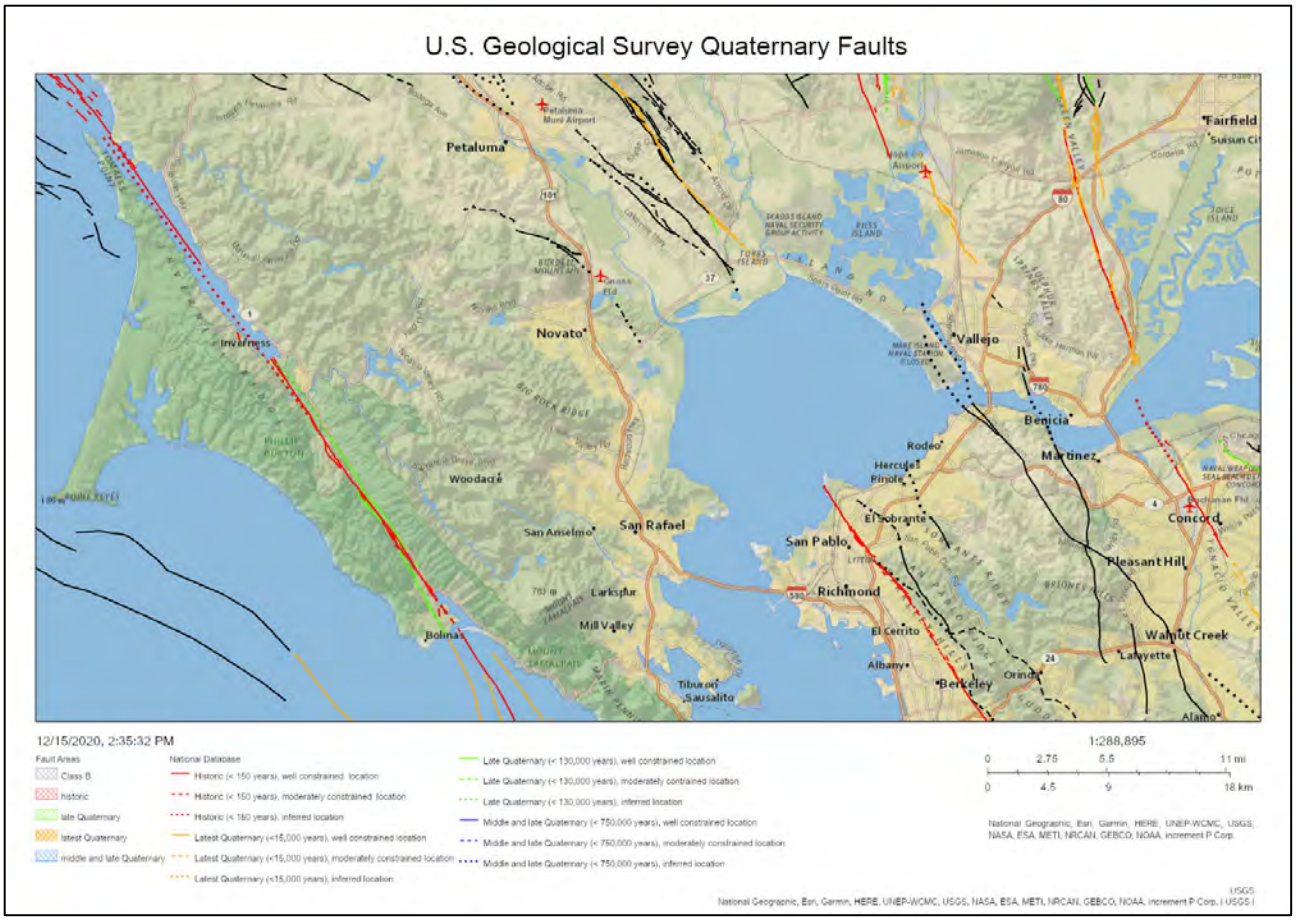



**Figure 3. Novato area regional faultlines. Source: USGS**

## 1.3 Soil Survey

In 1985 the Soil Conservation Service published the Marin County Soil Survey, which describes all soil types and provides data on various properties, limitations, and potential uses of the various soils.[4] Appendix C maps the soil types surrounding Stafford Lake and describes the soil properties of each type. A high percentage of the watershed has slopes in excess of 30%. In addition, the erosion potential is high for a significant portion of the watershed. Soil slippage has occurred in several sites leading to a high potential for colloidal clay to be a constituent of water flowing into Stafford Lake.

[4] United States Department of Agriculture Soil Conservation Service. (1985). Soil Survey of Marin County California.
https://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/california/marinCA1985/marinCA1985.pdf

## 1.4 Land Use

The Stafford Lake watershed includes a mixture of public, agricultural, and residential land use. Approximately 18 percent of the watershed is under public ownership, while approximately 81% is designated agricultural, and below 1% is considered private residential (see Table 1).

**Table 1. Stafford Lake Watershed Land Use**

| | Approximate Size (Acres) | Percentage (%) |
|---|---|---|
| **PUBLIC LANDS** | | |
| North Marin Water District (incl. lake 213 acres) | 880 | 16 |
| Marin County Parks & Open Space | 130 | 2.4 |
| **PRIVATE LANDS** | | |
| Residential (lots less than 10 acres) | 30 | 0.6 |
| Ranching (dairy, cattle, stables, grazing) | 4420 | 81 |
| **Total Acres** | **5460** | |

The private, agricultural land is predominantly used for ranching. All private agricultural parcels in the Stafford Lake watershed are currently zoned as A-2 under County of Marin zoning ordinances. This zoning classification permits limited agricultural uses, as follows:

1) Processing of agricultural products grown entirely on property;
2) Stables;
3) Kennels having less than six dogs; and
4) Accessory uses

In addition, uses designated as R-1 are permitted, both in A-2 zones and in the private residential areas. These uses include:

1) One family dwellings;
2) Public parks and playgrounds;
3) Crop and tree farming and gardening;
4) Nurseries and greenhouses;
5) Home occupations; and
6) Accessory building uses.

Table 2 lists the parcels within the Stafford Lake watershed, with the associated owner, estimated acreage, and land use. Parcel maps and information related to Marin County planning are included in Appendix D.

**Table 2. Stafford Watershed Parcels**

| Parcel No. | Total Acres | Est. Acres on Watershed | Usage | Owner |
|---|---|---|---|---|
| 121-060-02 | 118 | 60 | G | Douglas and Catherine Lelmorini |
| 121-060-03 | 100 | 100 | G | Cleoni Gause and Georgina Kretz |
| 121-100-11 | 3.5 | 3.5 | R | Cleoni Gause |
| 121-100-12 | 2.79 | 3.5 | R | Cleoni Gause |
| 121-100-13 | 5.2 | 5.2 | R | Georgina Kretz |
| 121-100-14 | 474.3 | 474.3 | G | Cleoni Gause and Georgina Kretz |
| 121-110-15 | 4.95 | 4.95 | R | Warren Glass & Trust |
| 121-110-18 | 5.3 | 5.3 | R | Dennis Cash |
| 121-110-19 | 3.3 | 3.3 | R | Ronald & Theresa Cook |
| 121-110-20 | 1 | 1 | R,S | Heritage Park, LLC |
| 121-110-21 | 15.1 | 15.1 | S | Heritage Park, LLC |
| 121-110-23 | 2.4 | 2.4 | R | Robert and Margaret Morrison |
| 121-110-24 | 4.9 | 1.9 | R | Robert and Marguerite Cratty |
| 121-110-34 | 262.79 | 262.79 | Rec, G | NMWD |
| 121-110-35 | 242 | 100 | Rec | Marin Co Open Space |
| 125-050-06 | 343 | 200 | G | Calvin Dolcini (Trust) |
| 125-050-10 | 125 | 25 | G | Calvin Dolcini |
| 125-050-12 | 172 | 100 | G | Calvin Dolcini |
| 125-050-13 | 353 | 353 | G, R | Calvin Dolcini |
| 125-060-07 | 100 | 40 | G | Ann Corda (Trust) |
| 125-060-12 | 855 | 855 | G,R | Ann Corda |
| 125-090-06 | 47 | 46 | G | NMWD |
| 125-090-07 | 583 | 500 | Rec, G | NMWD |
| 125-090-08 | 66.5 | 66.5 | (lake) | NMWD |
| R = Residence, Rec = Recreation, G = Grazing, S = Stables | | | | |

**Table 2. Stafford Watershed Parcels (cont.)**

| | | | | |
|---|---|---|---|---|
| 125-060-09 | 221 | 20 | G | Edward Grossi (Trust) |
| 125-090-19 | 129 | 129 | Rec | Marin County Parks |
| 125-090-20 | 649 | 640 | G, R | Edward Grossi (Trust) |
| 125-090-21 | 439.9 | 439.9 | G, R | Dominic Grossi |
| 125-100-11 | 1214 | 900 | G, R | Alfred Corda (Trust) |
| 125-100-12 | 1136 | 200 | G | Raymond & Patricia Ronsheimer |
| R = Residence, Rec = Recreation, G = Grazing, S = Stables | | | | |

### 1.4.1 Historical and Existing Agricultural Use

Historically the ranch land was predominantly (80%) dairy ranch property. Over the past 50 years, as a result of tougher water protection requirements and federal financial incentives, only one dairy ranch remained in 2019, representing only 8% of the acreage. In 2019, this ranch also ceased dairy operations due to a loss of profitability. Beef cattle and dairy dry stock have replaced the dairy operations on the other ranch acreage. A horse stable located on 15 acres on the southwest side of the watershed is the only other significant agricultural business.

Most of the large land parcels are currently under Williamson Act contracts, which allow lower property taxes in exchange for restricting properties to agricultural use for 10 years. Some acreage is under the Marin Agricultural Land Trust (MALT); the MALT agreements protect the property from development indefinitely. The 1994 Marin Countywide Plan contains detailed information on these agricultural policies.

### 1.4.2 Regulatory Jurisdiction

In addition to the landowners in the watershed, various other State and County agencies have authorities within the watershed. Table 3 includes the main regulatory agencies that have relevant roles in protecting the watershed.

**Table 3. Key Watershed Regulatory Agencies**

| Agency | Relevant Role in Watershed Protection |
|---|---|
| Marin County Planning Department | Land use |
| Marin County Agricultural Commissioner / Director of Weights and Measures | Pesticide use |
| Marin County Office of Waste Management | Hazardous material inventories |
| Marin County Environmental Health Dept. | Septic tanks |
| Regional Water Quality Control Board | Water pollution control systems |
| California Dept. of Transportation | Transportation and road maintenance |
| Marin County Fire Department | Fire roads |

## 1.5 Hydrology

Novato Creek is the major tributary to Stafford Lake. Novato Creek originates in the northwest portion of the watershed and flows (seasonally) for six miles into Stafford Lake. The average annual inflow (rainfall, runoff, creek flows) to Stafford Lake from the watershed is 4800 acre-feet with a 50% probability of greater than 3800 acre-feet in any year. The capacity of Stafford Lake is 4430 acre-feet. Table 4 describes some of the general hydrologic data. Stafford Lake rain data is included in Appendix E.

**Table 4. General Hydrologic Data for Stafford Lake**

| Characteristics | Precipitation | Outflows |
|---|---|---|
| Drainage Area: 8.4 square miles<br>Lake Capacity: 4,450 acre-feet<br>Maximum Depth: 63 feet<br>Maximum Surface Area: 231 acres<br><br>Other inflow can occur by "backfeeding" of treated Sonoma County Water Agency (SCWA) supply to the lake through the intake structure. This has occurred only on a limited basis during drought periods. It is not cost effective to backfeed and is not considered a standard practice., but may occur more frequently in the future during periods of drought. At the time of this report (Summer 2021), the lake was being backfed and the stored water will be used later in the year. | Precipitation falls in the form of rain from November through April. The water year is considered to be October-September.<br><br>Seasonal Rainfall<br>Year Amount (inches)[5]<br>00-01 22.76<br>01-02 26.99<br>02-03 32.01<br>03-04 24.86<br>04-05 38.58<br>05-06 35.83<br>06-07 15.32<br>07-08 24.02<br>08-09 20.37<br>09-10 26.62<br>10-11 29.16<br>11-12 16.32<br>12-13 20.37<br>13-14 13.87<br>14-15 25.74<br>15-16 22.08<br>16-17 40.15<br>17-18 19.27<br>18-19 40.67<br>19-20 18.46<br><br>The rain-year is from October 1 to September 30 of the following year<br><br>The monthly and yearly totals for rainfall in the Stafford area from 1916 to 2020 are included in the Appendix E. | Estimated Stafford Lake Evaporation/Seepage Losses (Inches)<br><br>Month Mean<br>October 2.9<br>November 1.2<br>December 0.7<br>January 0.6<br>February 1.1<br>March 2.2<br>April 3.5<br>May 5.3<br>June 6.2<br>July 4.7<br>August 6.2<br>September 4.7<br>Total 43<br><br>Fish and Game Releases: 154 ac ft<br><br>Golf course and Park irrigation average annual requirements (2011-2020):<br><br>Co. Park 38 ac ft<br>IVGC 198 ac ft |

[5] Annual Rainfall data were provided by NMWD's Stafford Rain Gage Record.

## 1.6 NMWD Facilities

NMWD facilities on the watershed ensure delivery of water from Stafford Lake to NMWD customers, and include the Stafford Lake Dam, intake structures, the STP, and water storage tanks. These facilities are discussed in the following sections.

### 1.6.1 Dam

Stafford Lake Dam was initially constructed in 1951. In 1954, the spillway was raised such that the capacity of the lake increased from 1,720 ac ft to 4,450 ac-ft with a safe annual yield of 2,000 ac-ft, based on the hydrologic conditions at the time.[6] The dam was reconstructed in 1985 for flood control improvements and now has a concrete spillway at an elevation of 196 ft. Cyclone fencing has also been installed across the dam face since the previous WSS was conducted.

Maintenance at the dam consists of removing weeds, monitoring piezometers, and replacing signs. District treatment operations staff check the spillway area once a day for trespassers, warn trespassers if sighted, and report significant problems to the District. Park personnel will also warn trespassers and report problems to the District, as necessary. The District acts on notification as appropriate.

### 1.6.2 Lake Intake Tower

The lake intake tower is located on the east side of the lake, near the dam. In 2010, the intake tower was rehabilitated, including a seismic retrofit; tower updates; and replacement of the ladder, gates, lake level gauges, gate operators and controls, electrical facilities, and an equipment building. It is now equipped with two (2) hydraulically operated intake gates – located at 174 and 158 ft. in elevation – and a scourer gate, which is located at the very bottom of the lake (el. 150 ft). All three (3) intake gates are exercised regularly, and the scour gate is typically opened at least once a year as required by the California Division of Dam Safety. The scourer gate was most recently operated in February 2021 to remove silt. A lake level chart recorder is located on the tower and is activated in the rainy season. Maintenance at the tower consists primarily of removing algae film from the elevation staff gauge and checking hydraulic fittings.

### 1.6.3 Lake Aeration System

The lake aeration system is intended to mitigate lake stratification as well as treatment inefficiencies at STP due to the presence of dissolved minerals, which will oxidize and precipitate given sufficient aeration. It is also intended to mitigate taste and odor (T&O) issues and filter clogging by minimizing algae blooms.

In 1968, a compression-driven aeration system was installed to maintain de-stratified conditions in order to improve water quality, which had been degrading over the years due to algae blooms and eutrophication. In 2008, two (2) hypolimnetic mixers were added to the lake to assist in lake

[6] North Marin Water District. (2021). History. https://nmwd.com/about/history/

turnover and destratification - the objective of these mixers was to maintain or assist destratification by allowing oxygenated water from the epilimnion to circulate to the anoxic hypolimnion. However, the hypolimnetic mixers were found to be ineffective by NMWD operations staff and were converted to epilimnetic mixers. In late 2013, NMWD replaced the existing aeration system with a different compression-driven aeration system over twelve (12) acres near the intake tower. The new system consisted of 16 emitters and four (4) compressors. DO is measured by NMWD weekly from late June through early November at 5-foot depths from the surface at three (3) locations in the lake, including a location near the intake tower and aeration system. Data from 2015 through 2020 at the intake tower location was reviewed and indicated that DO is not continuously maintained at depths from 15 to 30 feet during the T&O season. NMWD staff has also observed that although the aeration system was successful in destratification to some extent, it failed to maintain DO levels in the hypolimnion throughout the T&O season. In May 2021, 16 additional emitters were added, bringing the total number of emitters to 32. DO will continue to be monitored and reviewed to evaluate the effectiveness of the aeraton system.

### 1.6.4 Treatment Plant

NMWD  treats water from Stafford Lake primarily in the late spring through fall to augment its purchased, Sonoma County Water Agency (SCWA) supply. Production goals have been developed that promote operation of the STP to maximize the use of Stafford Lake water. STP production is maximized for cost savings and is limited to the quantity that was stored over the previous winter. In times of drought, a supply evaluation can be made in late winter to determine the value of diverting surplus treated SCWA water to Stafford Lake. Such a diversion has occurred on four separate occasions, most recently in 2021, however it is not cost effective and is not considered a standard practice.

The STP was designed by Kennedy Engineers and constructed in 1952. It was expanded in 1972 to 6.2 MGD (4,200 gpm) by Culp, Wesner, Culp. In 2006, The District completed major upgrades to the plant, including the addition of chlorine dioxide oxidation, three (3) Actifloc™ filter units, and granular activated carbon (GAC) filters. The current design includes chlorine dioxide pre-treatment; coagulation; sand garnet/anthracite high-rate filtration combined with coagulation and sedimentation; GAC filtration; chlorine disinfection; and sodium hydroxide for corrosion control. The process train is shown below in Figure 4. NMWD Operations Staff and their Treatment and Distribution Certification Levels are included in Appendix F.

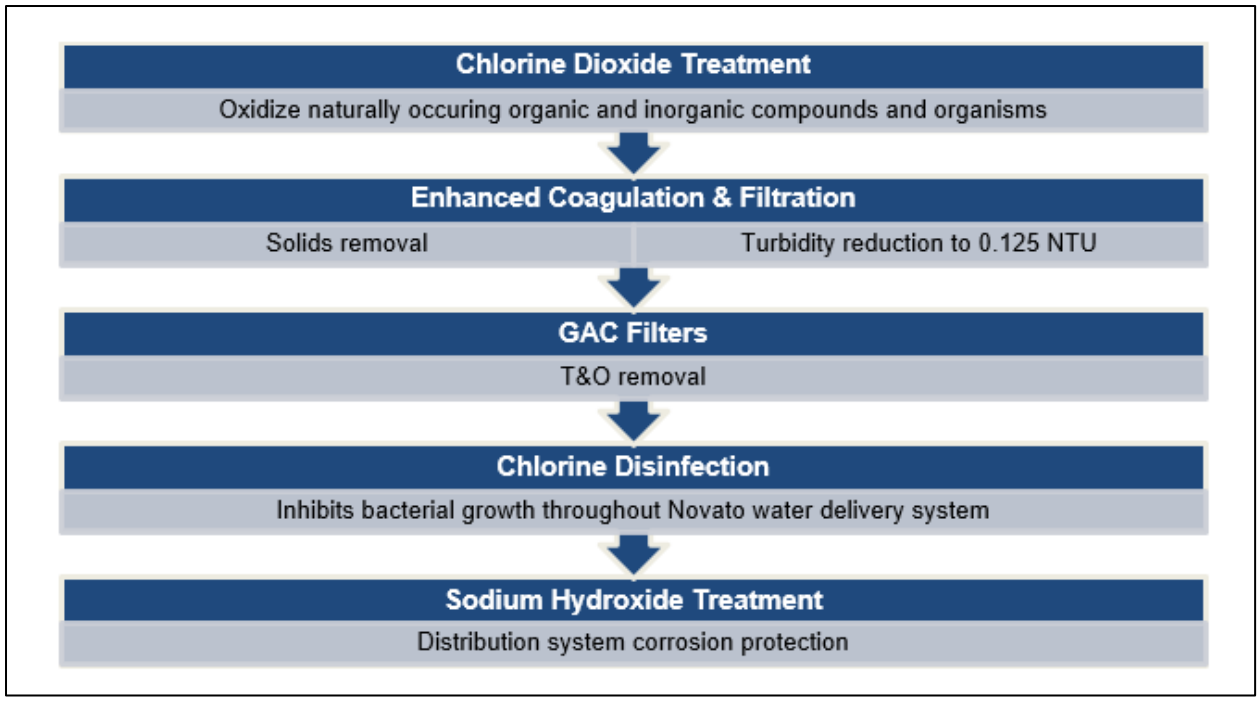



**Figure 4. STP Process Diagram**

### 1.6.5 Sludge Disposal

Disposal of settled sludge is by hauling offsite to be used as a soil amendment, while the supernatant is delivered to Novato Sanitary District (NSD) through the sewer collection system. An NSD Industrial Discharge permit is maintained; this permit is located in Appendix G.

### 1.6.6 Finished Water Storage

NMWD has over 33 MG of finished water storage in 30 tanks, serving four zones. This finished water storage is equivalent to approximately 2 days at maximum demand rates.

### 1.6.7 Other Supplies

Approximately eighty percent of Novato's water is purchased through a water supply delivery agreement with SCWA. In 2006, a Restructured Agreement for Water Supply with SCWA was executed, authorizing SCWA to construct facilities to increase NMWD's water delivery entitlement to meet Novato's expected future needs. North Marin's aqueduct capacity entitlement in the Restructured Agreement is now 19.9 MGD.

### 1.6.8 Emergency Plans

NMWD is an active participant in the City of Novato Emergency Operations Center. A California Standardized Emergency Management System-compliant Emergency Operations Plan (last updated 2019) has been developed and is on file with OHS. Additionally, an Emergency Action Plan for Stafford Lake Dam, which addresses the risk of breaching or overtopping, was

developed in 2015. Emergency power to operate STP is supplied by a 300kW diesel powered generator, which was installed in 2020.

### 1.6.9 Operation Plans

Operations Plans (Distribution Operations and Treatment Operations) have been developed to meet Division requirements. An updated combined Distribution and Treatment Plan for the operation of the Novato system was submitted to the Division in 2016.

# Section 2 - Watershed Survey and Evaluation

Information regarding possible contaminating activities (PCAs) was requested and collected from property owners through written communication and site visits to certain properties. The site visits to representative watershed properties were conducted in September 2020 for the purposes of updating and/or verifying historical information from the previous WSS. The information provided in this section reflects the data gathered from recent written communications and site visits with landowners, as well as historical data presented in the 2002 WSS and supporting documentation.

All the information gathered and reviewed for this WSS was utilized to meet the requirements of Title 22, and is organized as follows:

1. Section 2.1 reviews the activities related to each parcel group as documented in the on-site survey.
2. Section 2.2 classifies the PCAs and discusses common or unique issues of concern related to the activities identified.

## 2.1 Activity Survey of Watershed Parcels

All properties within the Stafford Lake watershed were surveyed - either through written communication or site visits - for the purposes of reviewing property uses and identifying PCAs. The following sections detail the findings of this survey.

### 2.1.1 North Marin Water District Property

Property within the watershed that is owned by NMWD is utilized for the STP facilities and leased to private parties. All parties who currently operate and/or maintain land owned by NMWD are included below with a detailed survey of the PCAs related to the lands they manage.[7]

#### Property Managed by NMWD

The area owned and directly managed by the District includes all of the treatment facilities associated with the STP, and the surrounding property. The following PCAs have been identified on lands owned and directly managed by the District:

1. **Wastewater:** A pressurized waste line was constructed in 1976 and carries water treatment process waste decant from the STP sludge handling facilities to the sanitary sewer connection at Center Road, near the eastern watershed boundary. Sanitary waste from the STP bathrooms and kitchen are also carried in this line.

[7] Over time, the District has increased surveillance of leases and has implemented several protective measures to enhance watershed protection; these measures are discussed in the sections below, and Section 2.2.

2. **Trespassing:** Trespassing in the area around the dam has been a problem for many years primarily by fishermen and grafitti writers. The signage located at the perimeters of the restricted zone has been historically ignored by many fishermen. The main PCAs associated with trespassing are an increase in litter that could contaminate the lake, and possible erosion.

   Without formal enforcement, the District has arrangements with the County Park to inform trespassers of prohibitions and to notify the District of trespass issues that are not resolved satisfactorily. The District plant operators also act to warn trespassers of rules. Typically trespassers leave but it is not known how often trespassers return.[8]

### Indian Valley Golf Course (IVGC)

IVGC leases 204 acres of District land on the southwest boundary of the lake. It is estimated that approximately 80,000 people visit the golf course every year. The IVGC lease allows use of the land for the golf course as well as diversions from the lake for irrigation purposes. The IVGC lease has watershed protective language that also contains specific prohibitions, and IVGC activities are subject to NMWD review and approval. The following documents the PCAs identified on the IVGC leased property:

1. **Pesticide use** - NMWD allows use of non-restricted pesticides if used per label requirements. Restricted pesticides, such as 2,4-Dichlorophenoxyacetic, require prior written District authorization. This request has been permitted with direct review by the Marin County Agricultural Commissioner's staff, upon the District's request. IVGC staff submit copies of monthly pesticide use reports to the Marin County Department of Agriculture, Weights, and Measurements on an annual basis; the pesticide use reports are included in Appendix H. There has been no use of a restricted pesticide since 1998. The California Restricted Materials Requirements are included in Appendix I.

2. **Wastewater** - The lVGC clubhouse originally operated with a septic system and leach field disposal just below the Center Road watershed access. A force main was installed in 1966 and now pumps to a sanitary sewer manhole at Center Road. The original force main from the lift station to the septic leach fields continues to serve as part of the conveyance line to the sanitary sewer connection. This line runs from the lift pump station, located under the putting green at the club house, to the golf course road that passes along the lake shore before turning toward Center Road. No redundancy currently exists in this system, however a new simplex pump was installed in 2018 and the pump station is equipped with a high level alarm. Sewer service is limited to the clubhouse restaurant and shower room facilities. The maintenance service area is not

[8] The Water Code specifies under Division 12 that County Water Districts have the power to write rules and regulations in respect to recreational use but the Code contains no provision to make violations a misdemeanor. According to the Water District's attorney Section 31131 of the Water Code would need to be amended to allow the County of Marin to make violation of NMWD regulations a misdemeanor. Marin Municipal Water District is able to have appropriate action taken by the Sheriff because Municipal Water District Law specifically states that "Violation of any such regulation is a misdemeanor." (Section 71660).

served by the sewer line. Since the previous WSS, portable chemical toilets have been replaced with two (2) toilets: one toilet is connected to a septic system and leach field, and one toilet is connected to the sewer force main.

3. **Irrigation Using Raw Lake Water** - The IVGC lease includes provisions to use Stafford Lake water for irrigation. Irrigation water is pumped from Stafford Lake by a pump station adjacent to the lake, and average usage is documented in Table 4 (Section 1.5).

4. **Fuel Storage** - IVGC maintains aboveground storage of petroleum (gas and diesel). This equipment is located on a hillside adjacent to the maintenance buildings. There are plans to install a diesel generator, which would likely increase the amount of diesel storage onsite. The golf course developed spill procedures after the 2002 WSS identified a potential fuel spill as a source of contamination. Spill control provisions include the double containment inherent to the Convault system, and containment equipment in the vicinity in case of a leak or break. Fuel use has been reduced due to the use of electric golf carts, which are powered by batteries; the batteries are picked up and returned by a contracted company.

5. **Organic Matter** - Grass clippings from the IVGC are left in-place. Collection for mass-composting would reduce some nutrient runoff.

6. **Roadway** - An access road leading to the STP and IVGC runs along the eastern embankments of Stafford Lake, and runoff from this road flows into the lake. Runoff could include antifreeze, grease, oil, and heavy metals from cars, in addition to any fertilizers or pesticides on the roadway. There is a 15-mile per hour speed limit on the road, however, vehicles have routinely traveled faster than this. Speed bumps have been installed on this road to slow traffic down, which should help with erosion control and prevent accidents and associated spills. The maintenance of this road is the responsibility of golf course personnel and the entrance to this road is primarily limited to the operating hours of the golf course, 7:00 AM to 7:00 PM.

### Grossi Ranch, Leveroni, and Bell Cattle Company

The District leases 110 acres of land for cattle grazing. The Dominic Grossi Ranch holds the largest lease (72 acres), located immediately adjacent to the lake.[9] Approximately 83 animal months of grazing per year is sustainable from the Grossi lease. A supplementary metered water source was constructed to make this possible.

The Leveroni family leases approximately ten (10) acres of land for grazing. Approximately 18 animal months of grazing per year is sustainable from the Leveroni lease. The Bell Cattle Company leases approximately 28 acres. Approximately 30 animal months of grazing per year is sustainable from the Bell lease. All of these leases include watershed protection language,

[9] This leased grazing acreage is in addition to the 440 acres that the Dominic Grossi Ranch owns within the watershed.

including a seasonal limitation on grazing (April 1 until November 15 or the first heavy rainfall). The following documents the PCAs identified on the properties leased to Grossi, Leveroni, and Bell Cattle Company:

1. **Erosion** - The grazing areas are located on sloped land, some with tendencies for landslides. Grazing is prohibited during the seasons when the land is most susceptible to erosion. The 1998 inspection by Atwill and Tate identified areas of overgrazing. Channel cutting at Vineyard Creek has been previously identified as an issue and addressed by installing riparian fencing to exclude cattle. Water troughs have been installed using District supply at points furthest from the lake to minimize impact to streambanks and natural water sources. Natural springs and creeks in the vicinity of grazing areas have been fenced.

2. **Manure** – Manure from grazing cattle is a potential source of nutrient loading and contamination in the watershed. Exclusionary fencing in riparian areas provides a significant barrier to manure transport.

### Marin County Parks and Open Space District (MCPOSD)

NMWD and the Marin County Parks and Open Space District (MCPOSD) have an active Trail Access and Management License agreement, providing MCPOSD management responsibility for the public use of approximately 170 acres of NMWD land. The Trail Access and Management Agreement gives MCPOSD managerial jurisdiction of NMWD land located southwest of the lake, abutting the MCPOSD Indian Tree Open Space. A 1984 agreement with NMWD specifically identified trails and addressed management of the public specifically on those trails. The current 1996 agreement provides that MCPOSD provides all management of public access, including off-trail access. A copy of the current agreement is included in Appendix J. Additionally, MCPOSD staff maintains the NMWD land that abuts the MCPOSD property on the northeast side of the lake, south of Hicks Valley Road. The following documents the PCAs identified on the properties managed by MCPOSD:

1. **Erosion** - Trails are utilized for hiking, horseback riding, and biking, all of which can contribute to increased erosion. Signage at Center Road and Vineyard Road was installed to identify the area as a water supply watershed.

2. **Dogs and Horses** - Dogs are allowed on-leash on signed trails, and off-leash on fire trails. Dog waste must be picked up by their caretakers. Horses are permitted on fire roads and multi use trails only. Horse and dog waste could present a minimal hazard to the watershed.

3. **Restrooms** - No restroom facilities are provided on the trail or at access points.

4. **Pesticides** - Pesticide application on the NMWD lands managed by MCPOSD is governed by a memorandum of understanding (MOU) between the MCPOSD maintenance division and NMWD. The MOU details the water quality measures in place

to safeguard the water supply, specifically related to herbicide and pesticide use and storage. Appendix J includes copies of the most current drafts of the agreements.

### 2.1.2 Marin County Parks and Open Space District

Marin County Parks and Open Space District owns and operates two (2) pieces of land within the watershed: the Indian Tree Open Space Preserve (ITOSP), and Stafford Lake Park.

#### Indian Tree Open Space Preserve

MCPOSD owns approximately 242 acres just south of Stafford Lake, known as the Indian Tree Open Space Preserve. A map of the ITSOP is included in Appendix K. The preserve is a heavily wooded area with small pockets of open grasslands along the southern and southeastern boundaries. Originally, this property was purchased by NMWD and MCPOSD, however the parcels were subsequently divided, giving each District sole ownership of their respective parcel. Access to ITOSP is by trails constructed by MCPOSD personnel through NMWD land (see Section 2.1.1, above). The following PCAs were identified for ITOSP:

1. **Erosion** - Trails throughout the ITOSP are utilized for hiking, horseback riding, and biking, all of which can contribute to increased erosion.

2. **Dogs and Horses** - Dogs are allowed on-leash on signed trails, and off-leash on fire trails in ITOSP. Dog waste must be picked up by their caretakers. Horses are permitted on fire roads and multi use trails only. Horse and dog waste could present a minimal hazard to the watershed.

#### Stafford Lake Park (Park)

Stafford Lake Park is a County Park that is managed by MCPOSD and utilized for social gatherings, hiking, and/or biking. No contact with the Stafford Lake water is permitted at the park, including boating. Parks staff enforces this policy, and violators are restricted from the park. The County and RHAA Landscape Architects developed a Master Plan for the Park in 2017, and collaborated with the District to capture any watershed and/or water quality concerns. The Master Plan is included in Appendix L. The following PCAs were identified for Stafford Lake Park:

1. **Restroom facilities** - Three (3) contained, vault toilet facilities for public use are located on the Park grounds, and one (1) contained collection tank toilet system is located at the park residence. The two (2) facilities located in the group picnic areas were replaced in 2001, the facility serving the general use area was replaced in 2002, and one (1) of the holding tanks was rehabilitated in 2018. All facilities are located at least approximately 500 feet away from the lakeshore and are alarmed and pumped regularly, with waste hauled off-site. Portable units supplement the contained units during large events and in the school and scout program area.

2. **Pesticide Use** - Operating Standards are a condition of Park operation per a 1972 agreement. In 1994 these standards were redrafted to include a list of pesticides and fertilizers approved by Marin County.

3. **Canada Geese** - The Park has a growing population of Canada geese, which have taken up permanent residence. California Fish & Game will not allow these animals to be removed.

4. **Erosion** - Since the 2002 WSS, a bike park has been added to the Park. After it's initial installation, some erosion and sediment issues occured, however effective erosion control measures were implemented.

5. **Events** – Large events at the Park can pose a risk water quality and are monitored closely by Parks staff. The District has emphasized that no camping be allowed unless strictly supervised.

### 2.1.3 Dominic Grossi Ranch (formerly George Grossi & Son Dairy)

Dominic Grossi owns and operates a large ranch, which was formerly the George Grossi & Son dairy operation. Grossi ceased all dairy operations in the fall of 2019. The ranch is currently used for raising beef and dairy cattle and is under a MALT easement. The dairy was inspected in 1998 by Atwill and Tate (UC Davis) and recommendations were submitted to the District. The primary activity of concern was runoff from the calving area. Also documented were issues related to other calf holding areas, the dairy waste management system, manure compost pile, and manure spreading.

As a result of the Atwill and Tate report an agricultural engineer was contracted by NMWD to evaluate the Grossi dairy waste ponds. His report was submitted to the Grossi Dairy and along with the Atwill and Tate report has become the basis for a number of improvements on the ranch. The owner implemented controls (2001) to manage the calf manure and incorporate it into the waste management system. These improvements were effective in mitigating many of the watershed concerns, however some runoff and nutrient loading problems persisted. Since the George Grossi & Son Dairy closed in 2019, several activities that were detrimental to the watershed have ceased, yet there are still remnants of the waste generated from the previous operations.

At the time of the 2020 sanitary survey, the Dominic Grossi Ranch had transitioned from a dairy operation and maintained 265 beef and dairy cattle on the property. These cattle are grazed on property owned by the ranch, or on NMWD land during permitted times of the year. Additionally, Dominic Grossi has plans to start growing fruit on the property. This could help with nutrient removal from the soil, and should be encouraged. The following PCAs were identified for Dominic Grossi Ranch:

1. **Runoff and Nutrient Loading** - There are three (3) areas/activities at the Grossi Dairy that have been identified as PCAs due to runoff and nutrient loading.

a. **Feeding Area:** A feeding and watering area is located along Novato Creek behind the Park property, and has been historically identified as an area of concern.[10] In addition to the grazing, the cattle consume approximately 600 tons of silage and alfalfa, and 250 tons of hay brought from offsite.

b. **Manure Pit:** The manure pit is still active and Dominic Grossi still performs some manure spreading within the limits recommended by the District. Manure is collected in the pit during winter and spread onto the fields during summer and fall. Dominic Grossi is in the process of clearing the waste ponds and converting them to freshwater ponds.

c. **Calving:** Since the Dairy closed, the calving area - which was previously the primary area of concern, is no longer used for that purpose. The ranch still practices some concentrated feeding operations in order to fatten the cattle in a different structure for limited amounts of time. This transition reduces the Cryptosporidium concerns within the watershed and is discussed in more detail is Sections 2.2 and 4.

2. **Aboveground Fuel and Chemical Storage** - The Ranch maintains an aboveground fuel storage tank in their yard area.

3. **Septic** - There are two (2) septic systems currently on the Grossi property. In 2001, a third house was constructed on the ranch and a third septic tank was added to one of the existing systems. The two (2) systems consisting of three (3) tanks were recently maintained (summer 2020).

### 2.1.4 Edward Grossi Ranch

The Grossi's have been a long-term protective presence on the watershed. Their ranch is used for grazing cattle, and operate a small vineyard on the property. Correspondence was exchanged with Jim Grossi and a site visit was made during the 2020 WSS. The Grossi family placed their ranch under a MALT easement that would keep the ranch as agricultural property. Part of the Grossi's ranch is leased by a rancher named Steve Jacobs. Approximately 120 cows, 20-30 calves, 10 bulls, and a few horses lived on the property at the time of the 2020 survey. The following PCAs were identified for the Grossi Ranch:

1. **Feeding areas** - The Grossi Ranch does not conduct any feedlot operations and currently leases grazing area to another rancher. A former feeding area is located outside of the watershed. Cattle are only corralled during calving season.

[10] In 2015, a Taste and Odor Control Study was conducted for Stafford Lake (SRT Consultants, 2015). This study identified the dairy as a concerning source of nutrients to the lake - specifically phosphorus - based on an analysis of tributary testing results.

2. **Crops** - Grossi currently grows crops in the old feeding pens, which can contribute to the uptake of excess nutrients from the soil and should be encouraged. The waste from these crops is composted or fed to the cattle and horses. A small vineyard is also maintained on the property. The Grossi's provided the District with a list of herbicides and pesticides used in the vineyard, all of which are accepted by the Marin County Department of Agriculture, Weights, and Measurements.

3. **Grazing** - The property is utilized for cattle grazing. Cattle are restricted from creek access by riparian fencing and the population of cattle being kept on the land has decreased since the previous WSS due to drought in recent years and decreased grass growth. No manure spreading occurs on the ranch.

4. **Aboveground Fuel Storage** -The ranch maintains an above-ground fuel storage tank in their yard area.

5. **Septic** - Discussions with the owner indicate that the two (2) septic systems with three (3) tanks may not meet current standards for service frequency. The septic tanks for the main ranch houses, occupied by Jim Grossi and Ralph Grossi, were last serviced over 10 years ago. The third septic tank, which serves the old main house, was last serviced approximately 15 years ago.

### 2.1.5 Corda and Dolcini Ranches

For the purposes of this WSS, correspondence was exchanged with property owners at the Corda and Dolcini Ranches. These properties carry out similar practices on their ranches, which are used for raising beef cattle. Cattle numbers at the Corda and Dolcini Ranches are limited to 105 calf-cow pairs grazing on the Corda Ranch properties, and 35 calf-cow pairs grazing on the Dolcini Ranch. The following PCAs were identified for the Corda and Dolcini Ranches:

1. **Feeding areas** - The Joe Corda Ranch has a feeding area with a waste retention area. Joe Corda reports that manure has not been spread on his property in the past three (3) years. The other Corda ranch and the Dolcini Ranch are limited to water and salt lick areas only.

2. **Above-ground Fuel Storage** - The Corda ranches maintain an above ground fuel storage tank in their yard area.

3. **Septic** - County Health has records of one (1) septic system on the Joseph Corda parcel but no other records. Joseph Corda reports that there are four (4) tanks on his property, which were last serviced 3-4 years ago. He has his septic tanks serviced approximately every 5 years. Sam Dolcini stated in a phone conversation that there is one (1) septic tank on the Dolcini Ranch; the date it was last serviced is unknown.

4. **Chicken Manure** - The Dolcini Ranch practices spreading of chicken manure in order to enhance grass growth.

### 2.1.6 Longview Stables (Stables)

Longview Stables (formerly Willow Tree Sunset Corral) is an equestrian facility that changed ownership since the 2002 WSS. Approximately 60 horses are currently kept on the property for boarding and training. The following PCAs were identified for the Longview Stables:

1. **Erosion and Runoff** - Efforts have been made at Longview Stables to minimize erosion and runoff potential, which have demonstrated mixed success. Currently the area around the stables does not have significant vegetation. This is a deliberate choice to decrease the perceived fire risk to the stables, but erosion is likely to occur. The owners expressed a willingness to plant fire-resistant vegetation with advice from the District. The Stables' owners have made improvements to the containment of the stables in order to prevent runoff from waste, with some success (see Manure Management, below). Additionally, they replaced the ground cover within the stables with 14 inches of rock base, mats, sand and Fibar brand Horse Footing, which is reported to be heavier than other cover options and less likely to slough off in the rain.

2. **Septic** - There are two (2) septic tanks located on the property. They were last serviced in November 2019.

3. **Manure Management** - Currently manure is removed from stables twice per day and stored in a shipping container on site until removed; removal off site occurs every five days. The District and current owners have had discussions about the need to cover the dumpster during rain events to prevent runoff, however this had not occured at the time of the survey. MCSTOPPP has also taken an active interest in the facility to ensure best practices of manure management.[11]

### 2.1.7 Residential Properties at End of Vineyard Road

During the preparation of this WSS, correspondence was exchanged with the Cook, Cratty, Cash, and Kretz families regarding any high risk activities on their properties. The following PCAs were identified for the residential properties surveyed:

1. **Septic** - County Health has records for four (4) systems out of seven (7) parcels with residences. Four (4) septic tanks were reported by the families in correspondence, so it is assumed that the County has accurate records on these systems.

### 2.1.8 Roadways

Novato Boulevard is a major corridor road from Novato to West Marin. All other roads in the Stafford Watershed are for local traffic. The following PCAs were identified for Novato Boulevard:

[11] Previously, grading by the former owners occurred without Stormwater Protection permits. The Marin County Stormwater Pollution Prevention Program (MCSTOPPP) cited the previous owners with a violation and required a design review.

1. **Illegal Dumping** - Several spots along Novato Blvd. have been used as dumping sites. Signage has been placed, however litter in the area persists.

2. **Spill Control** - The Marin County Sheriff's office has been asked to notify NMWD of a HazMat spill event in any part of the District's territory (see discussion on Transportation in Section 2.2).

### 2.1.9 Drinking Water Source Assessment Review

As part of the 2002 WSS, a Drinking Water Source Assessment (DWSA) was prepared for Stafford Lake, which was reviewed and generally remains accurate. The DWSA zones identified within the Stafford watershed from the 2002 assessment include the following:

**Zone A** - 400 feet from the 200 foot elevation contour around Stafford Lake; 400 feet from stream bank of Novato Creek in the area immediately adjacent to Lake; and 200 feet from the stream bank of all seasonal creeks. (All Creeks supplying Stafford Lake are seasonal.)

**Zone B** - 2500 feet from intake

A copy of the DWSA summary and ranking spreadsheets conducted in 2002 are included as Appendix M.

## 2.2 Classes of Possible Contaminating Activities

Possible Contaminating Activities (PCAs) are divided into classes in accordance with The California Drinking Water Source Assessment and Protection Program Interim Guidance for Staff (2000). The following sections provide a discussion of the PCAs identified in Section 2.1, above, with respect to the activity class, along with the watershed management practices currently implemented and any recommended mitigation measures.

### 2.2.1 Human Waste Management

Management of human waste within the Stafford Lake Watershed consists of municipal sewer services, septic systems, and waste holding tanks as detailed below.

#### Municipal Sewer Services

Novato Sanitary District (NSD) serves the Novato community with sewer services. These services are not generally available to properties on the watershed because they are outside NSD boundaries. The only two connections to the NSD that exist are from District-owned lands:

- **Treatment Plant Waste Line:** A pressurized sanitary sewer line constructed in 1976 carries water treatment process wastes from the STP sludge handling facilities, as well as waste from the plant bathroom, to a sanitary sewer connection at the top end of Center Road. There is a history of breaks in this line.

- **IVGC Waste Line:** A pressurized sanitary sewer line was constructed in 1966 under an outside service agreement and conveys waste from the IVGC clubhouse located on lands leased from NMWD. Service is limited to the clubhouse restaurant and shower room facilities. The maintenance service area is not served by the sewer line. The IVGC waste is collected in the old septic tank vault located in the vicinity of the clubhouse hillside and is pumped to the NSD manhole at Center Road. The pressurized line is within the watershed and potential line breaks are a recognized concern.

#### Septic Tanks

The Marin County Environmental Health Department (MCEHD) is responsible for enforcement of Chapter 18.06 of the Marin County Code, which regulates septic tanks. During the previous WSS (2002), MCEHD was contacted and information was requested on their policies and procedures in regards to regulating septic tanks. Their files were reviewed for data on existing septic tanks within the Stafford Lake watershed and it was found that their information was incomplete. The review conducted of County records and known septic systems indicated that there are ten (10) undocumented residences that either installed new septic systems or were connected to an existing septic system. It was reported by MCEHD that inspections are performed on new facilities if a permit is processed and the installer of the new system calls when ready for an inspection. Additionally, MCEHD stated that existing septic systems are only inspected upon report of failure and therefore the current condition of existing septic systems is

unknown. There have been no reports to MCEHD of septic tank failures within the watershed, however all issues and/or failures may not be reported by owners or residents.

In June 2000 the Marin County Grand Jury issued the report "The Failure of Management of the Environmental Health Services Division of the Community Development Agency - A Crisis for Marin County." This report focused on on-site wastewater disposal practices, including the lack of monitoring per County regulation. In response to the issuance of this report, the County Board of Supervisors created a Septic Technical Advisory Committee (SepTAC) to review findings and make recommendations. NMWD was appointed as an Ex-Officio member of the 23 member SepTAC. Meetings were held throughout 2000 and 2001 resulting in a final report on February 5, 2002 to the Marin County Board of Supervisors. NMWD continues to provide input that would designate source water protection zones as a priority in MCEHD regulations as they are revised.

Based on the discussions and site visits conducted as a part of this WSS, it is evident that some septic tanks within the watershed have not been maintained recently. In order to protect the watershed, it is recommended that NMWD follow-up with owners and ensure they service their septic tanks at least every five (5) years, based on EPA guidance for septic systems.[12]

### Other Human Waste Handling Facilities

Stafford Lake Park, located on the north side of the lake, has three (3) permanent restrooms and a one-bath caretaker home (See Appendix L, Figure 1.3.1 Existing Park Amenities in the Stafford Lake Master Plan for the locations of Park facilities). Each restroom and the home have flush toilets that dispose of their waste to underground holding tanks. The sewage holding tanks are equipped with a monitoring system that is checked daily by the park staff. The tanks are typically pumped once a week during the spring and summer months and once per month during the winter. Each restroom has a containment area under it that serves as an additional safety measure. These bathroom facilities were developed with NMWD Water Quality oversight and are generally well maintained. Two (2) of the facilities were rebuilt in 2001 and one (1) was rebuilt in 2002; one (1) tank was also replaced in 2018. Though some problems have occurred with the facilities over the years, no event has been recorded that would compromise water quality goals. Emergency overflow tanks are recommended for the Stafford Park restroom facilities as an added safety measure.

Portable restroom facilities are installed during the summer, located in a small clearing on the west side of the lake that is used in the summer months by youth groups. These facilities have the same service schedule as the permanent restrooms while they are in service over the summer, and are removed after the summer season. Additional portable restrooms are brought in for major events at the Park, as needed.

[12] United States Environmental Protection Agency. (2020, August 27). Septic Systems. https://www.epa.gov/septic/how-care-your-septic-system

MCPOSD has no restroom facilities at the ITOSP. Two (2) portable toilets for horsemen are located at Longview Stables. These facilities are pumped weekly.

### 2.2.2 Agricultural Practices

For the purposes of this WSS, most of the agricultural operations in the Stafford Lake watershed were contacted regarding their practices. Cattle and dairy ranches account for all of the agricultural operations in the watershed, and representative properties were surveyed for the purposes of the WSS. Information was gathered through observation and interviews with the ranchers.

#### Former Dairy Ranching

Dairy ranching has historically been the number one agricultural business in Marin County. At one time, the Stafford Lake watershed supported five (5) dairies. The WSS conducted in 1973 identified four (4) dairies milking more than 700 cows in total. In 2019, George Grossi & Son Dairy was the only remaining dairy farm, which had approximately 200 milk cows and 180 dry stock. George Grossi & Son Dairy ceased dairy operations in fall 2019, largely as a result of economical considerations, and is now Dominic Grossi Ranch. The ranch is currently used for grazing of 265 beef and dairy dry stock (at the time of the 2020 survey).

Dominic Grossi Ranch no longer maintains active confined feeding facilities, which were considered one of the most detrimental agricultural practices for water quality in the watershed. Since the dairy operation was recently closed, it is still pertinent to discuss waste management practices and any remnants of the confined feeding practices that could still impact the watershed. While operational, George Grossi & Son Dairy utilized many of the "Best Management Practices" that were required of dairies by the RWQCB for the protection of water quality:

- Freestall barns were constructed and a waste management program was initiated.
- All dairy waste water was ponded and subsequently spread on the pastures by a tank truck.
- Solids were distributed after being stockpiled following pond cleaning in the early Fall.
- Manure stored from the confined feeding area was composted for approximately twelve (12) months, sold, and taken off the watershed by buyers.

The property is heavily sloped and grazed which led to concerns with this disposal system's ability to keep the waste from impacting both land use and water quality. Monitoring of runoff at the time indicated that nutrients and coliform counts are significantly higher than other watershed sites. The waste ponds still exist on site as potential contaminant sources, however, Grossi plans to haul off the waste and convert these areas into freshwater ponds.

A manure storage area, utilized while fattening cattle in a confined feeding area, is situated close to the road across from the lake. Though drainage from this area is not contained, impact appears to be minimal due to it’s placement - the manure storage area is located at a high

elevation relative to the surrounding land, and therefore subject to minimal flow-through drainage. The waste is also composted, providing a high potential for die-off of organisms of concern.

### Cattle Ranching and Grazing

The lands surrounding Stafford Lake have historically been used for grazing. Currently, the majority of the agricultural landowners are utilizing their property as grazing lands for dairy stock and beef cattle production. Grazing animals are a natural component of the rangeland ecosystem and the local vegetation supports these types of uses well. The productivity of many of the grasses in the Novato area is limited only by nutrient and water supply.

In terms of water quality, the presence of grazing animals on the watershed presents potential hazards and benefits. When proper grazing techniques are followed, natural plant diversity is promoted, erosion is reduced, and agricultural production is increased. Improper management can result in promotion of nuisance weeds such as thistles and the terracing of steep slopes (prevalent within the Stafford watershed) which may increase the potential for mass soil slippage or slumping. Both thistles and terracing are evident on sections of the watershed.

The following are active grazing operations in the Stafford Lake watershed:

- The Jim Grossi Ranch now grazes beef cattle, and was converted from an active dairy operation. At this time only range beef cattle are raised and no confined feeding takes place.
- The Corda Ranches primarily graze dairy herds, and were also converted from active dairy operations (in 1994).
- The Dolcini Ranch grazes beef cattle.
- The Dominic Grossi Ranch is the most recently converted dairy operation, and now grazes both beef and dairy cattle, and also performs some limited confined feeding.
- NMWD currently leases approximately 110 acres (D. Grossi, 72 acres; Leveroni, 10 acres; Bell, 28 acres) for grazing purposes.

NMWD leases (See Appendix N) include provisions that require the lessee to follow certain guidelines when grazing livestock. NMWD allows grazing on its properties from April 1st through November 15th, with possible adjustments in the event of a dry or wet season. Livestock are not to be grazed during wet weather periods. The grazing leases permit 131 animal unit months (D. Grossi, 83 animal unit months; Leveroni, 18 animal unit months; Bell, 30 animal unit months) of grazing. Annual use reports are submitted with occasional checks by District staff verifying that the cattle are off the property in the excluded periods.

Watershed monitoring and management is conducted by Jim Grossi on behalf of the District; the rancher informs the District on problems related to trespass and maintains fencing. It is recognized that riparian fencing can prevent erosion by protecting stream banks and other vulnerable areas from being disturbed by cattle and can act to protect grasses as a barrier to sediment inflows. Documentation has shown that cattle, given the opportunity, will spend a disproportionate amount of time in riparian areas as compared to drier upland areas, if no

barrier is present. Preventing livestock from entering Novato Creek reduces the amounts of untreated wastes and potential disease-causing organisms entering the Stafford Lake raw water supply. Fencing has been installed to exclude cattle from riparian areas along Vineyard Road and areas with direct drainage to Stafford Lake near the intake cove.

#### Calving

Calving can be a source of contamination in the watershed, and different cattle operations have varying calving periods. Dairy cows calf throughout the year while beef cattle typically calf during the Fall. Compared to calves that are part of an active dairy operation, range calves are known to pose lower risk of Cryptosporidium, primarily due to their housing conditions and because their waste is not concentrated.[13] When they do shed Cryptosporidium, it is at a later age and is possible for a longer period of time than dairy calves. Further discussion on the lowered Cryptosporidium risk may be found in Section 4. No calving occurs on the parcels leased from NMWD.

### 2.2.3 Wildlife

The MCPOSD staff have sought to identify all wildlife species in the area. Wildlife lists, obtained from reports prepared by MCPOSD and California Department of Fish & Game, are included in Appendix O and are considered representative of species that are found in the watershed.

The majority of the wildlife present in the Stafford Lake watershed do not impact the water quality in Stafford Lake, with exception of the Canada Geese. Stafford Park has a resident population of Canada geese and domestic ducks. The population of Canada geese is significant, however removal is against Federal regulations because they are protected migratory birds. The District and Park have concerns with regards to waste management and resultant water quality,  and have been investigating various legal methods to temper the population. A chase dog was recommended by Fish and Game, and the use of a dog owned by one of the Park staff has had some success. Decoy coyotes have also been used to temporarily reduce the population.

Until the early nineties, Stafford Island was the site of a major heron rookery. An invasion of raccoons, followed by eagles, destroyed nests and the birds have not returned. The lake is frequently visited by seagulls, cormorants, geese, and ducks. Some concern with regards to the seagull presence at the lake may be warranted due to their use of the Marin Sanitary Landfill located about ten (10) miles to the northeast. Swallows historically used the intake tower for nesting sites. The intake tower rehabilitation project has taken away the opportunity most years.

The ranchers have encouraged wildlife that do not interfere with their cattle by leaving brush thickets for quail, deer and other game animals. Turkeys were introduced to the watershed in

[13] Since beef cattle calve in the fall rather than year-round, this may have the effect of concentrating the time during which Cryptosporidium is shed, however this is not considered to have a substantial negative impact given the reduced concentration of manure.

the 1990s, but few, if any, have remained. Coyotes have been observed in the watershed, raising concerns by ranchers.

### 2.2.4 Chemical Use and Storage

Chemical use and storage in the Stafford Lake watershed is largely related to herbicide and pesticide use by various landowners. No herbicide or pesticide has ever been detected in raw lake samples.

#### Herbicide and Pesticide

Usage of herbicides and pesticides in Marin County is regulated by the Marin County Agricultural Commissioner. There are three (3) significant user groups within the watershed: State and County government agencies, IVGC and the ranchers.

NMWD previously employed staff who were responsible for weed control on District property. Maintaining a trained staff and meeting the various pesticide regulatory requirements became burdensome and the District discontinued any form of pesticide/herbicide application on any of its sites. The watershed has not been included in any contract work up to this time.

MCPOSD staff have historically had difficulty with purple star thistles in the area. They have made an effort to remove thistles utilizing the principles of Integrated Pest Management (IPM), including use of weevils and hand-pulling, with the option of minimal use of chemical methods. In Marin County, the IPM Commission oversees implementation of the County's IPM policy and plan to make recommendations to the IPM Coordinator and Board of Supervisors. In 2020, the IPM Commision highlighted the following achievements:

- There has been no use of glyphosate and reodenticide at 147 County Parks sites;
- The most Parks sites (130) successully managed without pesticide in the County's history; and
- The total pesticide use by volume has decreased.[14]

Copper sulfate treatment of Stafford Lake is considered a pesticide application by the California Department of Agriculture under certain conditions. Discussion with the Marin County Agricultural Commissioner of the application frequency and concentration has raised no concerns with the regulator. Copper sulfate application was utilized to control algae populations in the lake during the warmer months, but has not been utilized in over 15 years.

MCPOSD operates Stafford Lake Park and manages the ITOSP on the watershed. Stafford Park's usage of toxins has been under NMWD surveillance historically and an MOU (see Appendix J) has been established between the two agencies in regards to Stafford Park usage. The MOU was developed after NMWD expressed concern when less than satisfactory storage

[14] Marin County Parks. (2021). 2020 IMP Annual Report. https://www.marincountyparks.org/-/media/files/sites/marin-county-parks/projects-and-plans/ipm/annual-reports/ipm_2020_ar_final.pdf?la=en

of pesticides was observed during a routine inspection. No pesticides are currently in use on Parks land according to Marin Agricultural Commissioner records. The present public access management agreement between the MCPOSD and NMWD was reviewed for language that would limit pesticide use, however no language was found that dealt with this particular issue. Revision of this document to include a prohibition should be addressed if this document is revised for other reasons.

Caltrans has informed the District that it has no jurisdiction for roadway weed control and that the County of Marin Department of Public Works Roads Division is responsible for weed control on Novato Boulevard. A phone inquiry requesting chemical usage information on roadside weed control brought forth a response that they only mow and no pesticides are applied by the Roads Division anywhere in the County. Additionally, no recent sightings of spraying have occurred in this area.

IVGC operates under a lease agreement with NMWD that specifically addresses pesticide and fertilizer use and water quality "rules and regulations." Chemical and fertilizer use is permitted under a separate document that can be revised at any time by staff. A prohibition against the usage of fertilizers containing sewage sludge is included. At this time the IVGC is allowed to use any chemical in an appropriate manner with the exception of restricted pesticides which require a written consent from the District's Water Quality Supervisor. Consent was granted once in 1998 for use of 2,4-Dichlorophenoxyacetic acid (2,4-D) against broadleaf weeds such as English Daisy. A good working relationship exists between the IVGC maintenance staff and NMWD, and it is understood that monitoring of pesticide usage is needed and necessary. The monthly pesticide use reports that are submitted to The County Ag Commissioner's office by IVGC are sent to the District at the end of the year. Appendix H lists chemicals used by IVGC. Monitoring of nutrients by NMWD at small tributaries has not shown any significant runoff from the IVGC property. The potential for pollutants (herbicides and fertilizers) draining from the golf course is considered controlled through the current management practices and the conditions in the lease agreement.

Rancher use of pesticides has historically been limited to 2,4-D or Roundup for thistle and other pest-weed control, according to records maintained by the Marin County Agricultural Commissioner. There was no reported recent pesticide use from ranchers during the discussions for the purpose of this WSS.

### Fuel Storage

The following table summarizes the known fuel storage in the watershed. No leaks or major concerns were identified during the WSS. Additionally, IVGC has implemented spill procedures and measures since the 2002 WSS identified the risk of a fuel spill.

**Table 5. Fuel Storage**

| Location | Type | Above or Below Ground | Capacity |
|---|---|---|---|
| **IVGC** | Gasoline | Above Ground w. containment | 1000 gallons |
| | Diesel | Above Ground w. containment | Unknown |
| **Dominic Grossi Ranch** | Gasoline | Above Ground | 500 gallons |
| | Diesel | Above Ground | 500 gallons |
| **Jim Grossi Ranch** | Diesel | Above Ground | 500 gallons |
| **Corda Ranches** | Two (2) Diesel | Above Ground | Unknown |

### Fireworks

An annual fireworks show was held on Labor Day weekend. Concern for perchlorate prompted testing after each event. Following a perchlorate detection in 2006, fireworks have been banned (See Appendix P for memo).

## 2.2.5 Recreational Use

The major types of recreational activities that take place in the Stafford Lake watershed are hiking, equestrian use, camping, bicycling, BMX/mountain biking, golf, picnicking, and fishing. The local equestrian population uses many of the ITOSP trails. Many local people own horses and are active users of preserve lands and Longview Stables also serves local horsemen. Hunting is another form of recreation that exists in the privately-owned portions of the watershed. Off-road vehicle use is limited to ranch properties and is forbidden on public lands.

### Equestrian Recreation

Longview Stables operates a horseback riding and boarding operation, and currently houses an estimated 60 horses. It is located at the end of Vineyard Road on the watershed. The stable came under new ownership in 2015. The new owner has changed operations, including improvements to the containment system of the stables, and has worked with District staff to improve practices. Monitoring of the tributary from the stable area shows low levels of nutrients. Upon new ownership, manure disposal became a concern due to lack of sufficient containment and proximity of manure storage to the tributary. The staff clean horse stalls twice per day and now contain manure within a shipping container. The shipping container is not covered and therefore could be a source of contamination during rain events. Manure is hauled offsite every 5 days.

There are no storm water control systems in place. To mitigate sediment inflows from this reach of the watershed a gabion dam was constructed as part of the 1988 erosion control program. This dam was resurfaced in 2001. Currently there is a lack of vegetation on the property which

would help control erosion. The owners of the stables have indicated they would like to work with District staff to select fire-resistant vegetation to plant.

ITOSP is often the destination of riders who pass through NMWD lands. Horseback riding is encouraged on fire roads and trails maintained for that purpose. Some problems that lead to erosion have occurred due to unauthorized "pirate" trails that have been created horseback riders. The MCPOSD personnel and local horsemen have made efforts to mitigate these issues by putting together volunteer programs on special "Trail Days".

Amenities such as parking lots, public restrooms and drinking water are not available at ITOSP. This fact has most likely had the greatest impact on the number of people who visit the preserve as well as the length of their stay. Although developed potable water is not currently available, stock water does exist on preserve property. Several springs in the area have been tapped and are used to fill water troughs.

### Hiking and Biking

ITOSP is often the destination of hikers and bicyclists. Hiking is encouraged on fire roads and trails maintained for that purpose. Dogs are allowed on the trails, with leashes being required on the signed trails, and off-leash dogs being permitted on the fire trails. Waste is required to be removed by individuals accompanying dogs. Day use for hikers is permitted, but overnight camping by the general public no longer occurs anywhere in the watershed. Stafford Lake Park also contains hiking trails and promotes cross-country walking; this may lead to concerns if not adequately monitored and if adequate restroom facilities are lacking.

Unlike hiking and equestrian use, bicycling is permitted on designated trails only, as shown on the map in Appendix K. Bicycle users must yield right of way to pedestrian and equestrian traffic under all circumstances. Speeds above 15 mph are not permitted and no bicycle races are allowed inside ITOSP boundaries. Enforcement is the responsibility of MCPOSD rangers. Since patrols are limited, enforcement is minimal but no significant violation has been reported on the watershed. It is believed that horseback riders would report misuse if it occurred.

More recently, a bike park was added to Stafford Lake Park. District staff are closely monitoring activities at the bike park, due to potential erosion concerns. The Park added additional erosion and sediment control measures, which have improved these conditions.

### Golf

IVGC, located on the southern shore of Stafford Lake, is another major recreation destination in the area. The land leased to IVGC extends from the southern shores of Stafford Lake to the hillsides belonging to MCPOSD. IVGC is an 18-hole course that is open to the public. A clubhouse containing a bar, restaurant, showers and toilets are located on the golf course. A repair shop, a single trailer living quarters for employees, and several storage buildings are also located on golf course lands. The expansion of the golf course into property under control of Marin County was being pursued at one time, but appears to no longer be a consideration.

The golf course diverts water from Stafford Lake for irrigation and has installed a water-conserving irrigation system. Backflow protection is in place to protect both the lake and the potable supply. Stafford Lake Park also has a disc golf course on the premises.

### Picnics, Events, and General Recreation

Stafford Lake County Park is utilized by the public for picnicking, barbecues, and general recreation. Some larger events have been hosted in Stafford Lake Park, such as musical performances and festivals. The park is also a popular wedding venue. Portable toilets are brought in for these events and camping is typically not allowed.

### Fishing

Fishing is allowed from the lakeshore providing the following regulations are observed:

- No fishing is allowed within 1,500 feet of the outlet tower as required by the Novato Water Supply permit issued by the California State Department of Public Health Services.
- Use of live fish or clams as bait for fishing is prohibited by the Department of Fish and Game.

Although Stafford Lake was constructed specifically to provide drinking water to the City of Novato, sport fishing has been an added benefit of the lake. It has been argued that a productive fishery will help to keep the fish population and other organisms in balance and healthy. It has also been argued that a productive fishery will provide water quality benefits by enhancing the food chain and ultimately reducing the nutrient loading in Stafford Lake. No specific study has been conducted to identify if Stafford Lake water quality has actually benefited by improving the fishery. Regardless of quantitative results, NMWD supports the fishery as a program and believes that it helps to protect the Stafford supply through public awareness.

In 1984, Stafford Lake was scheduled to be drained for repairs to the dam. This presented a unique opportunity for the removal of undesirable fish species, namely carp and abandoned pet goldfish.[15] An estimated 28 tons of fish were removed by seining and about 4 tons were eliminated by using the fish toxin, rotenone. Of all the fish that were removed, approximately 95% (by weight) were carp and goldfish.

After completion of the dam repairs in 1985, the lake was filled and approximately 70 Florida strain largemouth bass and 10 Redear Sunfish were planted. Various projects to improve the habitat available to fish were also implemented, chiefly by volunteers:

- In 1984, a fishing bridge and jetty were constructed and green ash trees were planted below the high water line of the lake.

[15] A fishery management plan was conceived by NMWD, various concerned agencies, groups and individuals who wished to restore Lake Stafford's virtually nonexistent sports fishery, and the draining of the Lake allowed for the initiation of several goals of the fishery management plan.

- In 1985, the first of several dead-tree brush shelters were installed. These consisted of four inch diameter oak limbs anchored by concrete blocks.
- In 1986, 14 willow trees were planted to replace the green ash trees that had died.
- In 1987, several brush shelters, gravel spawning beds, and the slope of the fishing jetty were rip-rapped to produce a needed fish habitat. In subsequent years, most recently in 1994, additional fish have been planted. Most of which have been bluegills as forage fishes for the bass.
- In 2008, 2500 4-6” channel catfish were planted.
- In 2021, anchored Christmas trees were installed near the park and fishing island for fish habitat.

Concern for the fishery has been expressed with regards to the copper sulfate treatments that were conducted in response to algae blooms. The number of copper sulfate treatments has increased with the improvements in the fishery, due to improved water clarity (after carp removal) thereby increasing the potential for algal growth. Treatment is conducted infrequently and treatment patterns take into consideration the needs of the fishery.

### Signage

Signage has been developed over the years to inform recreational users of the watershed prohibitions. Signage is placed on the fencing of the restricted zone and at various spots around the lake at high water level. The District was asked by the California Department of Public Health (now DDW) to provide signage at the entry points of the watershed identifying the watershed as a source for Novato's potable supply. In 1998, signage was placed at entry points to the watershed at Novato Boulevard, Center Road, and Vineyard Road. The signs identify the Stafford watershed and lake as a public water supply source with phone numbers to report accidental spills or discharges.

### Unauthorized or Illegal Activities

There are several unauthorized or illegal recreational activities within the Stafford Lake watershed that should be noted.

1. Swimming, wading, boating, and other water contact activities are prohibited in Stafford Lake.
2. Trespassing in the area around the dam has been a problem for many years primarily by fishermen and grafitti writers. The signage located at the perimeters of the restricted zone has been historically ignored by many fishermen. A request for notification of trespassers has been made to County Park staff. The area is in the jurisdiction of the County Sheriff's office. Reports of trespassing have been made at various times, however the District has been informed that enforcement is essentially impossible because there are no penalty provisions. It is the Sheriff Department’s policy to respond to only one call regarding trespassing in a six-month period (see Appendix Q, Memo to District Attorney).
3. Vandalism of signs, the spillway, and other properties with graffiti is ongoing. Grafitti writers have found the spillway area to be especially attractive and graffiti is evident.

4. Use of motorized vehicles inside the ITOSP boundaries is prohibited due to the risk of fire as well as the potential for destruction of the natural surroundings. This includes off-road recreational vehicles, motorcycles, and four-wheel drives. Currently, those using ITOSP for these purposes are considered trespassers. It would be possible to limit these activities through the installation of adequate fencing and gates but there appears to be no need at the current time.
5. Hunting is established as an incompatible use of both NMWD and MCPOSD lands. However, there reportedly is a private hunting club located on property partially within the watershed which leases the hunting rights from the property owner.
6. Evidence of witchcraft rituals was in one incidence identified on the golf course property.
7. Criminal activity is not common in the watershed, however in 1978, there was a reported dumping of a dead body over an embankment fence into the lake within the 1500 foot restricted area.

### 2.2.6 Transportation

Stafford Lake is located in a rural area with only one (1) major road that passes through the watershed, along with several local roads that are infrequently traveled. The PCAs associated with transportation in the Stafford watershed are chemicals or hazardous materials related to vehicle traffic, maintenance of the highway, erosion of dirt roads, and roadside culverts and drains.

Novato Boulevard is the only major road that passes through the Stafford Lake Watershed and is a two-lane road that stretches for approximately 3.5 miles in an east-west direction across the watershed. The existing roadway was realigned in 1948 to 1952 to relocate the road away from the lake created by Stafford Dam. Cutting and filling of the side hills above the lake was used to create the road. Novato Boulevard runs along the northern edges of Stafford Lake, with the eastern half of the lake located 75 to 150 feet away from the road and the western half of the lake located 150 to more than 650 feet away from the road. Vehicle traffic through the area is usually light to moderate. This road provides access to West Marin and can act as an alternative route north to Petaluma.

The only other public road in the watershed is Vineyard Road, which is partially a paved road with curbs, inlets, and drainage swales, and partially a dirt road bordered by a drainage ditch. Private residential roads (Meadow Lane, and the continuation of Vineyard Road) after the public road ends. Vineyard Road is primarily used by watershed residents, patrons of Longview Stables, and users of MCPOSD trails. Sixteen (16) unpaved roads covering 21 miles are also located throughout the watershed. Eight (8) of these roads are owned and maintained by the Marin County Fire Department (Fire Department). The remainder of the roads are owned and used by landowners. Many of these roads are used by horse riders and hikers destined for MCPOSD trails.

Historically, there has been one (1) accident that occurred and resulted in a vehicle entering the lake over the embankment near the intake tower. A sample was taken of the water for evidence of gas or oil, but none was found. The California Highway Patrol and the Marin County Sheriff

Department have no record of any accidents involving hazardous materials along Novato Boulevard for the past five years. In case of an accident involving a hazardous material release, established guidelines are followed by law enforcement personnel. A copy of these guidelines is included in the current NMWD Emergency Plan. A request has been made to notify NMWD at any time that there is a spill event in District territory. The Marin County Environmental Health Department, California Department of Health Services, and the Novato Fire District each have reported spills unrelated to the watershed. The last report of this nature was in early 1994. A District representative participates in local emergency response planning to address any contamination concerns associated with accidents.

### Roadside Culverts and Drains

Due to the proximity of Novato Boulevard to Stafford Lake, drainage from the most eastern section of road is almost immediately washed into the lake. Nine (9) culverts drain Novato Boulevard and the surrounding hillside, potentially carrying pollutants from the roadway directly into the lake. The closest culvert to Stafford Dam is on the north side of the dam. The County of Marin owns and maintains these culverts. The Stafford Area Map shows the location of the culverts and other inflows to Stafford Lake.

The culvert southeast of the dam on the golf course road was mentioned in the 1995 OHS inspection as a potential source of contamination based on the area of the watershed it drains. NMWD investigated this claim further and determined that this culvert receives drainage from the hillside above and has less potential for pollution than the Novato Boulevard drains. The biggest hazard was identified a vehicle accident resulting in fuel spillage. If this were to occur, STP operation could be halted. The analysis was provided to OHS who agreed with findings.

### Other Pollutants

Mowing of the regions around Novato Boulevard is conducted by the County and occurs on a semi-routine basis. Some concern has been expressed that mowing is a cause of the spread of thistles in the road cuts. If mowing could be restricted to occurring prior to seed head formation, thistle control could be advanced. This proposed timing of mowing is not possible according to County maintenance personnel due to staff and mower limitations during the time frame.[16]

Erosion and loose dirt on dirt roads is a potential cause of sediment runoff in the watershed. There are many private dirt roads in the watershed, and the pavement on Vineyard Road stops after the last residential home on the street (at the Big Trees hiking area trailhead). Minimizing traffic on the unpaved section of Vineyard Road is one element of controlling sediment loads to the Lake, and signage has been added to encourage only local, necessary traffic. There is signage at the end of the paved segment of Vineyard Road informing drivers that there is no golf course access via Vineyard Road, and providing directions to the golf course entrance. There is also a sign at this location indicating the entrance to the Stafford Watershed. Additional information on erosion within the watershed is included in the following section (2.2.7).

[16] This is due to a County-wide thistle problem that requires all staff and mowers to be available to handle areas of concern.

Illegal dumping has also occurred in several spots along Novato Blvd. Signage has been placed but dumping still occurs.

### 2.2.7 Erosion and Fire

The watershed is at risk of erosion and fire, which could result in increased runoff of sediment, nutrients, organic carbons, ions and metals. The PCAs associated with erosion and fire are detailed below.

#### Erosion

Much of the area surrounding Stafford Lake can experience severe erosion during the winter and spring rains. While erosion is a natural process, it is accelerated by many of the human activities in the watershed. Areas that are compacted or stripped of vegetation increase runoff speed, which in turn washes out gullies and stream banks, forms channels on unpaved roads or paths, decreases infiltration, and increases the sediment load and contaminant transport to the lake. The soil erosion characteristics, hilly topography, and human activity in the Stafford Lake watershed make erosion one of the major contributors to sediment load and increased turbidity of the raw water supply.

Erosion can also impact the serpentine pockets in the watershed (see Section 1.1, Regional Geology), which makes it highly probable that asbestos-containing matter enters the lake, and subsequently the STP treatment processes. As a measure to evaluate treatment with regards to asbestos removal, the plant operators have used the applied turbidity as a guideline of removal efficiency. A process goal of 1 NTU in the applied water has been set to maximize asbestos removal. Raw water has not been tested for asbestos as it is assumed to be present due to the geologic features of the watershed.

NMWD conducted several projects in conjunction with the ranchers on the watershed to help identify and correct significant erosion problem areas. In 1986, interns from World College West and an erosion consultant conducted an intensive field survey and identified erosion sites on the 21 miles of various unpaved ranch and fire roads in the watershed. A report was issued as part of the survey that provided detailed information on the problems and proposed solutions. The project informed landowners and the Fire Department of the extent of erosion problems on their roads. The Fire Department and local ranchers performed repairs and installed erosion control devices on the unpaved roads. The Fire Department performs repairs annually as time and budgets allow, using their own crews and equipment. As an added benefit to the project, the Fire Department now performs roadwork with greater awareness of, and attention to, erosion created by roads.

In 1987, a subsequent project was initiated that involved identifying, prioritizing, selecting, designing, and constructing erosion control structures and actions in the watershed. After the sites were identified, it was determined that sedimentation dams, check dams, riparian fencing, and seeding of vegetation-deficient areas were needed to reduce the inflow of sediment into

Stafford Lake. Initially, planning and implementation was focused on the utilization of volunteers to construct some of the small check dams and gully repairs. However, due to the physically-demanding nature of the work, it became necessary to rely mainly on the local landowners and paid labor to complete the remaining improvements needed.

Dams

The Marin Conservation Corps constructed check dams using large rocks and two (2) large sedimentation dams were constructed by licensed contractors:

- One dam is a reinforced concrete structure approximately 50 feet wide built into the downstream end of an existing ranch bridge on the main stem of Novato Creek.
- One dam is a gabion (wire basket enclosed rocks) structure approximately 30 feet wide and located on a south shore tributary downstream of the Sunset Corral property.

Both structures were sited so that they trapped sediment and provided protection to the vulnerable stream bank upstream by reducing the velocity of the water. Maintenance of these dams requires removal of the sediments as needed so the dam can continue to operate as a sediment trap. Sediment removal occurs annually at this time. Sediments have a high percentage of gravel and are applied to watershed roads or piled for golf course use. The gabion dam required resurfacing in 2001.

Earthen dams constructed and maintained by ranchers for animal watering were outside of the erosion control study. An actual count of diversion dams has not been kept by the District, though aerial photos would indicate that there are approximately seven (7) in existence. These dams act to reduce runoff (and the associated sediment) into Novato Creek. They are effective as sediment traps, however they represent a sediment hazard if they fail.

None of the rancher diversion dams within the watershed are under the California Division of Dam Safety regulatory overview.[17] NMWD has not formally investigated or made an assessment of the hazard potential associated with the private dams, as they are not expected to pose a large risk. It has been noted that one (1) dam on the Corda property was seriously undercut by erosion of the spillway, however the condition of this dam or other private dams has not been verified. In the 2002 WSS, manure waste pond(s) were identified as a higher failure risk for the watershed but they are no longer used extensively due to the end of dairy operations.

Riparian Fencing

Due to the high potential for erosion and waste contamination, the stream banks have been protected by installing riparian fencing. Approximately two (2) miles of riparian fencing was installed by landowners and Marin County Parks. Most of the remainder of the stream bank is inaccessible to cattle and therefore protected either by topography or vegetation.

[17] A twenty-five foot height is required for inclusion in their programs.

Seeding of Vegetation-deficient Areas

Reseeding eroded or barren grassland areas was a very minor part of the work and was confined to stable areas that were grass-deficient.[18] A total of 31 acres was reseeded.

## Fires

The threat of fires in the Stafford watershed is significant in the summer and fall. Conditions vary annually due to climate changes, however the risk and incidence of wildfire in the State of California has been higher in recent years due to less precipitation and higher temperatures. Additionally, fighting fires in the Stafford Lake watershed is made difficult by the topography, vegetation, and water supply.

During the 2020 fire season, widespread fires adjacent to the region brought heavy smoke to the area, and there was a relatively small grass fire just outside of the watershed in Novato. In December 1995, a fire destroyed a hay barn on Jim Grossi's ranch. A tractor, pickup and gas tank were also destroyed. The property was visited after the fire and there was no evidence of a water quality impact. At present, no records of fires in the watershed are kept.

Stafford Lake is surrounded by slopes ranging from 2% to extremely steep. This type of topography can greatly limit access to some areas. Currently, there are 16 dirt roads which cover 21 miles in the Stafford Lake watershed. Eight of these roads are maintained by the Fire Department. The fire roads not only provide access for personnel and equipment, but also establish fire breaks, which are critical in the area prone to fast-moving grass fires.

Runoff from burned areas contains ash, which could have significant effects on the chemistry of the lake. During and after a fire, surface waters may be impacted by an increase in debris, sediment, nitrate, and organic carbon in runoff from the watershed. Fires may also destabilize soils due to the loss of vegetation and impact the soil quality of the watershed to decrease infiltration rainfall, thus increasing erosion and runoff.[19]

The impact to water quality could be considered minimal in the Stafford Lake watershed compared to forested areas, because grass fires would be the most likely events and the annual grasses would quickly grow back, minimizing the potential for increased erosion.

[18] The Resource Conservation Service advised against seeding of unstable areas, which eliminated many areas in the watershed.

[19] U.S. Geological Survey. (2021). Water Quality After Wildfire. https://www.usgs.gov/mission-areas/water-resources/science/water-quality-after-wildfire?qt-science_center_objects=0#qt-science_center_objects

# Section 3 - Water Quality Monitoring Program

NMWD developed laboratory capabilities in 1961, approximately ten (10) years after the construction of the STP, largely in response to a recognized need for better information to improve the treatment process. Taste and odor problems prompted the operators to develop laboratory skills to identify and solve problems before they impacted the plant processes or caused customer complaints. Weekly monitoring of raw water became a standard operating procedure to maintain high quality finished water. Additionally, tributaries to Stafford Lake are monitored monthly when they are flowing (typically winter, spring, and early summer).

Water quality data collected by NMWD over the past five (5) years (2016-2020) was reviewed and analyzed to document the current Stafford Lake source water conditions for the purposes of this WSS. Details of the water quality monitoring are included below. Appendix R contains water quality monitoring data collected 2016-2020.

## 3.1 Raw Lake Water Monitoring

Water quality samples from the raw water intake line are collected weekly during the operating season for pH, alkalinity, true color, turbidity, dissolved oxygen, temperature, coliforms, and plankton identification and enumeration. The sample is collected from the valve point near the plant. A surface sample is also collected quarterly at the intake tower and is analyzed for the same set of constituents.[20] Total coliforms, fecal coliforms, and E.coli are also monitored with the quarterly sample at the intake tower.

Two (2) additional sampling stations have historically been used to assess the operation of the lake aeration system. These two (2) stations are marked by buoys at points 'East' and 'West' (sampling locations are shown in Figure 5), located adjacent to the aeration system between the island and the tower. Dissolved oxygen (DO) and temperature readings are taken weekly at the buoys and at the intake tower at every five (5) feet of depth and a plankton net sample is collected to determine the volume of plankton in the top ten (10) feet of water column. Secchi disk readings are taken.

### 3.1.1 Lake Nutrient Monitoring

The lake nutrient monitoring program that currently exists was initially implemented in 1979 as part of a Clean Lake Grant. This sampling is focused on the lake itself, not its tributaries (see Section 3.2). Monthly samples taken from the lake at elevations of 174 feet and 158 feet are analyzed for total phosphate and orthophosphate, nitrite, and nitrate (as N). The phosphate levels are quite variable and often are the trigger to algae or aquatic weed growth. The various forms of nitrogen tend to be highest during the rainy season, and very low during the summer.

[20] An AYSI Sande multianalysis probe was purchased in 2000. This probe can analyze and store data in a continuous mode monitoring pH, dissolved oxygen, chlorophyll, turbidity, conductivity and temperature. Depth is also recorded. This instrument is used in the weekly lake monitoring and when not in use is capable of being used in a flow-through mode to monitor raw water as it enters the plant.

Because blue-green algae are capable of taking nitrogen from air, phosphate can be the limiting nutrient.

### 3.1.2 Cryptosporidium, Coliforms, and Turbidity Monitoring

In 2004, the first period of monthly Cryptosporidium monitoring at the intake tower was initiated for compliance with the LT2ESWTR, which requires samples at least monthly for 24 months. An additional period of Cryptosporidium monitoring occurred from 2015-2017. Cryptosporidium was detected intermittently in raw water samples from these two monitoring periods, and the current treatment design and operation effectively remove Cryptosporidium from the raw water. Additionally, this monitoring includes turbidity, total coliforms, and E. coli counts. Total coliforms have been noted to increase during the rainy season. Previous monitoring for Cryptosporidium (1995-2001) found only one cyst in over 3000 gallons filtered. More detail on the results of recent Cryptosporidium and coliform monitoring is included in Section 3.2.2.

### 3.1.3 Other Parameters Monitored

A variety of analyses have historically been performed quarterly on both raw and treated water. These include the Title 22 'General Mineral' and 'Physical' constituents. Many of the analyses show seasonal patterns of fluctuation as follows:

- Hardness and alkalinity tend to be lowest during the winter.
- Aluminum, iron, manganese, nitrite, nitrate, color and turbidity are usually highest in the rainy season.
- The pH fluctuates primarily due to algae blooms.
- T&O - measured as geosmin and MIB - have historically been a concern and tend to be high in raw water in the late summer when algae blooms commonly occur. However, T&O has not been an issue in finished water samples during 2016-2020 due to treatment plant upgrades.

The trace inorganic and organic chemicals required to be monitored under Federal and State regulations are analyzed at the frequency stipulated by the local OHS engineer. No maximum contaminant level has ever been exceeded in the samples taken. During plant operation the intake is sampled for turbidity, pH, alkalinity and temperature on a daily basis. The sampling occurs every four hours.

## 3.2 Tributary Monitoring

In 1973, an effort was made to begin monitoring the tributaries that contribute to Stafford Lake as a way to assess the nutrient loading. This was initiated to provide documentation for the purchase of an urban boundary buffer zone through the Clean Lakes Grant (to prevent development of the lakeside area) and removal of lake bottom nutrients. Several tributary sampling sites were monitored for a period just over two years but only a limited amount of data is available from the timeframe. In 1999, a formal tributary monitoring program was initiated at the request of the DHS (now DDW). Initially four (4) tributary sites were monitored for coliforms, nutrients and solids. In 2001, three (3) additional sites were added, and in 2010 an eighth

sample was added. The tributary sampling locations (#1-8) and the three (3) lake sampling locations are shown in Figure 5 below and are currently monitored for nutrients.

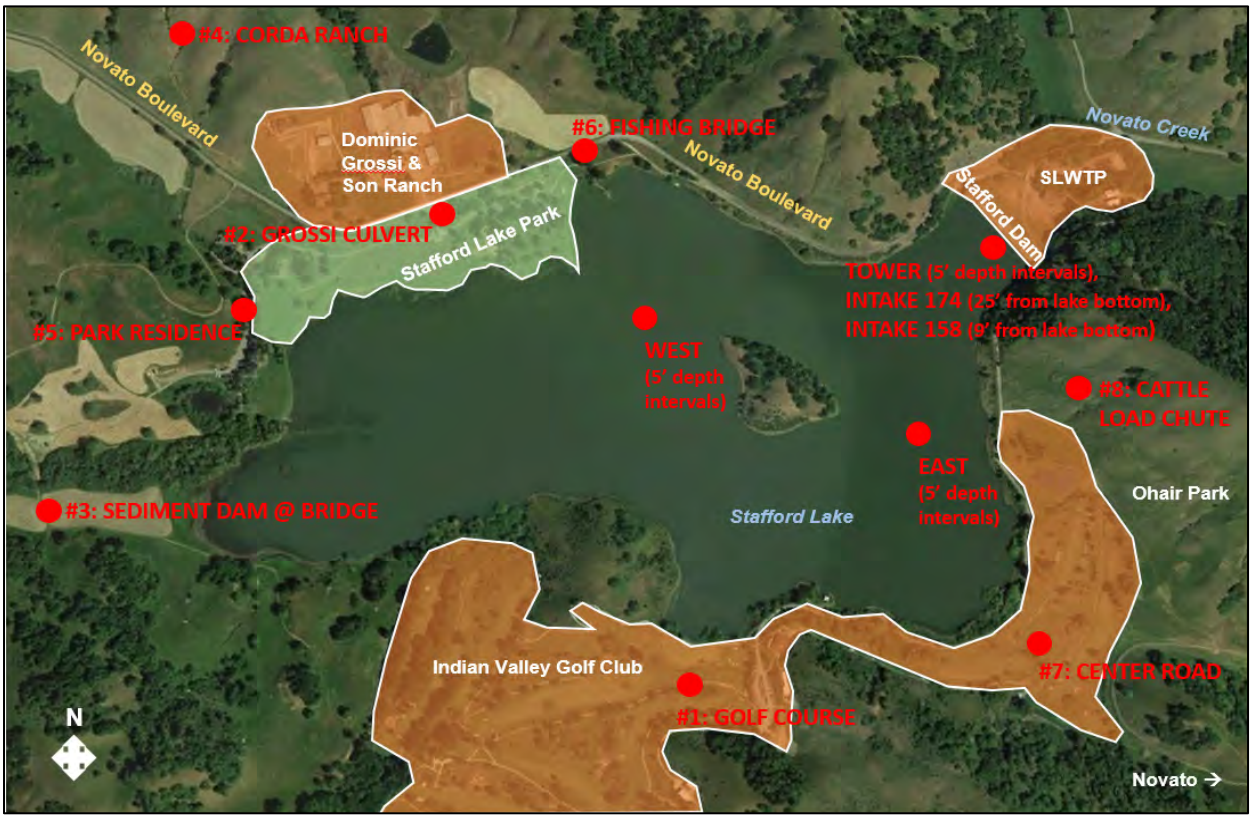



**Figure 5. Sampling Locations**

## 3.3 Significant Findings

NMWD is in compliance with the Title 22 Regulations for Water Quality; Consumer Confidence Reports for 2015-2020 are included in Appendix S. The following sections discuss the past five (5) years of water quality monitoring in order to capture the current Stafford Lake source water conditions for the purposes of this WSS.[21]

### 3.3.1 Tributary Monitoring Results

Previous monitoring of the seasonal tributaries to Stafford Lake found that the highest nutrient inflows originate from the former dairy. The most recent results found high levels of nutrient inflows at the sampling location near the Grossi Culvert (#2), but even higher nutrient levels on either side of the former dairy, at the Fishing Bridge (#6) and Park Residence (#5) sampling locations. The watershed sampling points at the Fishing Bridge and Grossi Culvert (both of which drain the dairy property) and Park Residence (which drains the Stafford Lake Park area) have been known to release higher concentrations of nutrients, specifically phosphorus. The average nitrate concentration at the Grossi Culvert (#2) has decreased to 2.67 mg/L as N in the

[21] Water quality data from 2016-2020 was analyzed as a part of this analysis.

year 2020 (compared to an average of 6.64 mg/L), following the end of dairy operations. Similarly, the nitrate concentration measured at the Fishing Bridge (#6) was 1.33 mg/L in 2020 (compared to an average of 17.04 mg/L). The phosphorus values have not yet decreased significantly in samples. Table 6 summarizes the average results of nutrient monitoring at the tributaries for the years 2016-2020.

**Table 6. Tributary Monitoring Nutrient results from 2016-2020**

| Sampling Location | Average Nitrate as N (mg/L) | Average Total Phosphorus (mg/L) |
|---|---|---|
| #1 Golf Course | 1.41 | 0.42 |
| #2 Grossi Culvert | 6.64 | 3.13 |
| #3 Sediment Dam at Bridge | 1.41 | 0.33 |
| #4 Corda Ranch | 0.44 | 0.17 |
| #5 Park Residence | 11.09 | 1.50 |
| #6 Fishing Bridge | 17.04 | 6.33 |
| #7 Center Road | 0.92 | 0.20 |
| #8 Cattle Load Chute | 2.12 | 0.14 |

### 3.3.2 Cryptosporidium, Coliforms, and Turbidity Results

Due to agricultural practices on the watershed, Cryptosporidium and coliforms are contaminants of concern in Stafford Lake. Based on data from the most recent Cryptosporidium monitoring in 2015 - 2017, the raw water in Stafford Lake has the following characteristics:

- Annual average of cryptosporidium levels is less than 0.2 cyst per liter. No Giardia cysts were found.
- Monthly E. coli monitoring at the raw water intake is typically below 50 MPN/100 mL.
- The average of weekly coliform monitoring at the intake is 330 MPN/100 mL. Higher values occur once or twice in winter but summer increases have also occurred. It is theorized that birds may be the source of summer increases.

STP effectively removes Cryptosporidium and coliforms in the treatment process. Based on the Surface Water Treatment Rule (SWTR), the STP is mandated to provide a 0.5 log inactivation of microbes when the coliform level is below 1000 coliforms per 100 milliliters (mL). When coliform levels are over 1000 coliforms per 100mL, 1.5 log inactivation is required.

The 2016-2020 quarterly analysis of turbidity at the lake intake tower (elevations 158 feet and 174 feet) show an average turbidity of 10 NTU, with samples between 1.9 and 31 NTU. As expected, increases in lake turbidity are observed following rain events. Turbidity

measurements taken at the time of Cryptosporidium and coliform sampling averaged 12.7 NTU, with samples between 1.7 and 50 NTU. Finished water at STP has an average measured turbidity of 0.11 NTU.

### 3.3.3 Other Title 22 Contaminants

No chemical pollutant of concern has been detected in Stafford Lake raw water. The most substantial concerns are with regards to naturally occurring minerals (ie. iron, manganese), which are both regulated with secondary MCLs, and the presence of high concentrations of nutrients (phosphorus, nitrogen), which support the growth of algae. Increased levels of Mn at the intake during anoxic conditions and recurrent algal bloom patterns indicate that significant internal nutrient loading is occurring in the lake.

### 3.3.4 Algae and Taste and Odor

Samples for algae are taken on a monthly basis at the intake tower for identification and enumeration. Cell counts for Geosmin-producing algae such as anabaena are still high, however, plant upgrades and operational considerations have been successful in mitigating the T&O concerns during recent summer seasons.

# Section 4 - Findings and Recommendations

The following sections summarize the significant findings of the 2020 WSS as well as recommendations for NMWD to continue protecting and improving the watershed. Overall, conditions on the watershed have improved since the 2002 WSS, and risks associated with nutrient loading and cryptosporidium have been reduced. District staff should continue to diligently monitor for contaminants of concern as well as sources of pollution, and may take measures to improve risks of erosion, agricultural runoff, and human waste.

## 4.1 Summary of Findings

The findings of this WSS indicate that the Stafford Lake watershed carries a low risk of major contamination that would lead to compromised water quality. The investigation found that there is low risk of contamination from chemical use and storage, transportation, and most recreational activities. There was slightly higher risk of contamination from agricultural activities, equestrian recreation, and human waste management.

Historically, animal agriculture in the area has been the primary concern for water quality effects to the lake. However, District staff have worked with landowners to implement improvements in order to reduce their impact on the watershed. The elimination of all dairy operations on the watershed represents a significant reduction in the risks to the lake water quality from Cryptosporidium and nutrient loading, and nutrient concentrations from sampling near the former dairy have been reduced in the time since the dairy was eliminated. The following summarizes the PCAs that represent a higher risk within the watershed and discusses the actions taken to mitigate impact.

- **Cryptosporidium** - Dairy calf waste was considered the highest risk for Cryptosporidium contamination within the watershed since they are likely to acquire the parasite in the first 30 days of their lives. Additionally, waste from dairy calves is often concentrated in one area due to their housing conditions, requiring proper management and disposal. This risk has been mitigated significantly since the 2002 WSS due to the George Grossi & Son property ending their dairy operation.

  Range calves, as now are raised on the watershed, acquire Cryptosporidium later and over a longer period of time than dairy calves. They are likely to be shedding Cryptosporidium between the age of one (1) and four (4) months. The contamination risk is lower than that of dairy calves because their waste is not concentrated.

  Adult cattle, horses, and other adult livestock have a lower risk of shedding Cryptosporidium than calves, but allowing the animals to access Lake Stafford or

allowing manure to wash into the lake or its tributaries must be avoided.[22] No new sources of Cryptosporidium have been identified.

- **Erosion and Sediment Loading** - There are many activities within the watershed that erode the soils and could lead to higher sediment loading and contamination transport to Stafford Lake, largely related to agricultural grazing and horse facilities. Minimal erosion and potential for increased sediment loading was found to be caused by other recreational activities. Erosion impacts are not considered substantial due to the success of historical improvements (sediment dams, riparian fencing, limited access). Of particular concern is Longview Stables, where the area around the stables does not have significant vegetation. This was a deliberate choice by the owners to decrease the perceived fire risk to the stables, but erosion is likely to occur.

- **Runoff and Nutrient Loading** - Ranching operations (particularly the former dairy) and the horse stables are both sources for potential for nutrient loading to Stafford Lake.

    - **Former Dairy:** Higher concentrations of nutrients (nitrate and phosphate) have been historically recorded at the tributaries that drain the former dairy (Grossi & Son) and Stafford Lake Park. It has been concluded that the agricultural operations and wildlife present in the direct vicinity of Stafford Lake contribute to the nutrient loading, which ultimately plays a role in the algal blooms in the lake and T&O issues at STP. However, since the dairy ceased operating in 2019, the nitrate levels at the related tributaries have declined, indicating that this change will improve nutrient loading. It is anticipated that this will continue to improve as the manure ponds are transitioned to freshwater ponds.[23]

    - **Longview Stables:** After the change of ownership, manure disposal became a concern due to lack of sufficient containment and proximity of manure storage to the tributary. Monitoring of the tributary from the stable area generally shows low levels of nutrients, however the lack of containment on the top of the manure storage area could result in a major input of nutrients to the watershed. The impact of this operation on water quality has been recognized as a concern by the owner, and they have indicated they will work with District Staff to improve practices.

- **Septic Systems** - Some septic systems in the watershed do not meet EPA guidelines for service frequency and inspection. There were no observed impacts to water quality

[22] Risks regarding Cryptosporidium are based on information provided by Dr. Robert Atwill and Dr. Ken Tate from the University of California at Davis.

[23] External nutrient loading from sources in the watershed over time has led to the build up of nutrients in the sediments of the lake, and is responsible for the high concentration of nutrients available for release into the water column (internal nutrient loading). Therefore, changes in the watershed made to reduce external nutrient loading may not have an immediate impact on nutrient levels in the lake, but they should improve over time.

due to septic systems, however a major failure of a septic system that has not been adequately maintained could result in a substantial risk to the watershed.

Based on the review of the conditions at the Stafford Lake watershed, and the treatment operations at STP, the source meets the requirements of the SWTR. Although Cryptosporidium and coliforms are present in the watershed, STP achieves adequate removal through filtration and disinfection.

## 4.2 Recommendations

Based on the findings above, the following actions are recommended to maintain or improve conditions in the watershed:

- **Agricultural & Equestrian Recommendations** - The District has a good working relationship with the landowners in the watershed and should continue to support their efforts to mitigate the impacts of animal agriculture and horse stables. This may include:
    a. Enforcing grazing limits;
    b. Continued implementation of waste handling BMPs;
    c. Encouraging ranchers in their decisions to grow crops, which should reduce the excess nutrient load in the soil;
    d. Monitoring the conversion of the former waste ponds into freshwater ponds on the Dominic Grossi property to reduce nutrient runoff from the area into the lake;
    e. Assisting landowners in riparian fencing installation to prevent cattle from accessing tributaries to the lake; and
    f. Working with Longview Stables to achieve proper containment at their horse manure storage area.

- **Erosion and Sediment Loading Recommendations** - It is recommended that District staff advise landowners to revegetate erosion-prone areas on their properties. Of particular concern is Longview Stables, where the area around the stables does not have significant vegetation; the owners expressed a willingness to plant fire-resistant vegetation with advice from the District.

- **Human Waste Management Recommendations** - It is recommended that NMWD staff initiate or continue conversations with property owners in the area to ensure that all septic systems are inspected and serviced at the appropriate intervals in order to protect the watershed from human waste. Emergency overflow tanks are also recommended for the Stafford Park restroom facilities.

# 12

**MEMORANDUM**

To: Board of Directors

From: Drew McIntyre, General Manager

Subject: ACWA Region 1 Board Election (2022-2023)
t:\gm\acwa\2021 misc\acwa ballot memo.doc

September 3, 2021

**RECOMMENDED ACTION:** Authorize General Manager to Vote for ACWA Region 1 Nominating Committee's Recommended Slate

**FINANCIAL IMPACT:** None

Attached is the Association of California Water Agencies (ACWA) Region 1 Board Ballot with the recommended slate of officers for the upcoming two-year term (2022-2023). Also attached is an email from ACWA describing the election rules and regulations and a map of the ACWA Regions. I was the chair of the Nominating Committee again this year and recommend that the Board authorize the General Manager to vote for the Nominating Committee's recommended slate.

RECOMMENDATION

Board authorize General Mange to concur with ACWA Region 1 Nominating Committee's recommended slate and sign the ACWA Region 1 Ballot.

# OFFICIAL REGION 1 **Board Ballot**

2022-2023 TERM

ACWA
Association of California Water Agencies

**Please return completed ballot by Sept. 30, 2021**

E-mail: regionelections@acwa.com
Mail: ACWA
980 9th Street, Suite 1000
Sacramento, CA 95814

## General Voting Instructions:

1. You may either vote for the slate recommended by the Region 1 Nominating Committee or vote for individual region board members. Please mark the appropriate box to indicate your decision.

2. Please complete your agency information. The authorized representative is determined by your agency in accordance with your agency's policies and procedures.

CLEAR FORM

1

## Nominating Committee's Recommended Slate

☐ I concur with the Region 1 Nominating Committee's recommended slate below.

**CHAIR:**
- **J. Bruce Rupp**, Director, Humboldt Bay Municipal Water District

**VICE CHAIR:**
- **Jennifer Burke**, Water Director, Santa Rosa Water

**BOARD MEMBERS:**
- **Tamara Alaniz**, General Manager, Brooktrails Township Community Services District
- **Jon L. Foreman**, Director, Valley of the Moon Water District
- **Dennis Mayo**, Board President, McKinleyville Community Services District
- **Elizabeth Salomone**, General Manager, Mendocino County Russian River Flood Control & Water Conservation Improvement District
- **Brad Sherwood**, Assistant General Manager, Sonoma Water

**OR**

## Individual Board Candidate Nominations

☐ I do not concur with the Region 1 Nominating Committee's recommended slate. I will vote for individual candidates below as indicated.

**CANDIDATES FOR CHAIR: (CHOOSE ONE)**
- ☐ **Jennifer Burke**, Water Director, Santa Rosa Water
- ☐ **J. Bruce Rupp**, Director, Humboldt Bay Municipal Water District

**CANDIDATES FOR VICE CHAIR: (CHOOSE ONE)**
- ☐ **Jennifer Burke**, Water Director, Santa Rosa Water

**CANDIDATES FOR BOARD MEMBERS: (MAX OF 5 CHOICES)**
- ☐ **Tamara Alaniz**, General Manager, Brooktrails Township Community Services District
- ☐ **Jennifer Burke**, Water Director, Santa Rosa Water
- ☐ **Jon L. Foreman**, Director, Valley of the Moon Water District
- ☐ **Dennis Mayo**, Board President, McKinleyville Community Services District
- ☐ **Elizabeth Salomone**, General Manager, Mendocino County Russian River Flood Control & Water Conservation Improvement District
- ☐ **Brad Sherwood**, Assistant General Manager, Sonoma Water

2

AGENCY NAME

AUTHORIZED REPRESENTATIVE

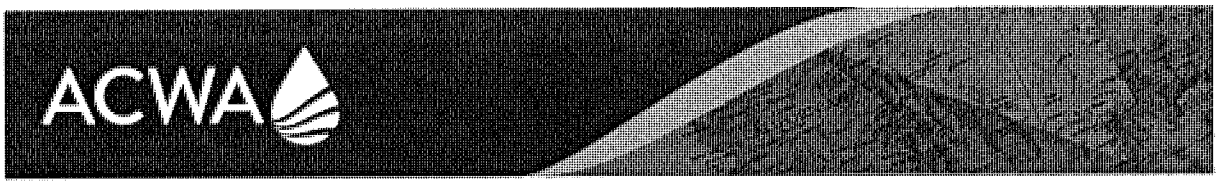
DATE

**From:** Drew McIntyre
**Sent:** Monday, August 30, 2021 2:28 PM
**To:** Terrie Kehoe
**Subject:** FW: Reminder: ACWA Region 1 Election Ballot

**Follow Up Flag:** Follow up
**Flag Status:** Completed

**From:** ACWA Regions <regionelections@acwa.com>
**Sent:** Monday, August 30, 2021 1:11 PM
**To:** Drew McIntyre <dmcintyre@nmwd.com>
**Subject:** Reminder: ACWA Region 1 Election Ballot

Click here if you are having trouble viewing this message.




TO: ACWA REGION 1 MEMBER AGENCY BOARD PRESIDENT
AND GENERAL MANAGER

## *Ballot for Region 1 Board Election for the 2022-2023 Term*

It is time to elect the 2022-2023 ACWA Region 1 chair, vice chair and board members who will represent and serve the members of Region 1. Attached you will find the official ballot which includes the Region 1 Nominating Committee's recommended slate, as well as individual candidates running for the Region 1 Board.

**Your agency is entitled to cast only one vote**. Please review the attached ballot and have your agency's authorized representative cast its vote for the slate as recommended by the Region 1 Nominating Committee **or** cast its vote for an individual Region 1 chair, vice chair and three to five board members.

**2022-2023 ACWA Region 1 Ballot is located HERE.**
**Region 1 Rules and Regulations are located HERE.**

**Submit the electronic ballot to ACWA by September 30, 2021.**
*(Ballots received after September 30 will **not** be accepted.)*

**Remember, Your vote is important.** Region 1 Board members are elected to represent the issues, concerns and needs of your region. The Region 1 chair

and vice chair will serve on ACWA's Board of Directors for the next two-year term beginning January 1, 2022. Additionally, the newly elected chair and vice chair will make the Region 1 committee appointment recommendations to the ACWA president for the 2022-2023 term. Also, either the chair or vice chair will hold a seat on the ACWA Finance Committee.

If you have questions, please contact your Regional Affairs Representative, Jennifer Rotz or call (916) 441-4545.

Thank you for your careful consideration and participation in the Region 1 election process.

ACWA Regions | ACWA Events | ACWA

# REGION **MAP**


REGIONS 1, 3, 5

**Jennifer Rotz**
Regional Affairs Representative
jenniferr@acwa.com

REGIONS 2, 6, 7

**Michael Cervantes**
Senior Regional Affairs Representative
michaelc@acwa.com

REGION 4

**Ana Javaid**
Region & Member Engagement Specialist II
anaj@acwa.com

REGIONS 8, 9, 10

**Augustine Han**
Regional Affairs Representative
augustineh@acwa.com

ACWA
Association of California Water Agencies

Rev. 6/2/20

# 13

**MEMORANDUM**

To: Board of Directors September 3, 2021

From: Pablo Ramudo, Water Quality Supervisor PR

Subject: FY 2020-21 Fourth Quarter Progress Report – Water Quality
P:\LAB\WQ Supv\WQ Reports\2021\4rd Qtr FY21 WQ Rpt.doc

**RECOMMENDED ACTION:** Information

**FINANCIAL IMPACT:** $0

The water served to the communities of Novato and Point Reyes met federal and state primary and secondary water quality standards during the fourth quarter of fiscal year 2020-2021.

Following is a review of the activities and water quality issues in regards to:

- Source Water
- Treatment Performance
- Distribution System Water Quality
- Novato Recycled Water

## NOVATO SYSTEM

### Source Water: Stafford Lake

Stafford Lake water was not used used as a source of drinking water during the fourth quarter. The backfeeding operation that began earlier in the year continued through April 30th, banking more than 1115 acre-feet of water for production later in the year. Water quality was monitored on a monthly basis for chemical and mineral components as well as microbiological activity.

Algae and plankton from the raw water intake were identified and enumerated although staffing levels did not permit weekly analysis. Total algae numbers were relatively high with large blooms of two genera of cyanobacteria. Diversity was moderate with 8 genera recorded in appreciable numbers, but dominated by 6 genera of cyanobacteria with the potential for taste and odor problems and filter clogging.

### Treatment Performance: Stafford Treatment Plant

The Stafford Treatment Plant remained off for the season.

### Distribution System: Novato

Of the 234 routine samples collected for compliance with the Total Coliform Rule, there were no coliform positive samples.

Chlorine residual concentrations throughout our distribution system were adequate to ensure disinfection. Average disinfection by-product concentrations were low and well within standards.

## POINT REYES SYSTEM

### Source Water:

### Coast Guard Wells

Raw water quality was generally good. Constituents associated with salt water intrusion that had fallen throughout the previous quarter stabilized at a new, higher baseline than in previous years. By the end of the quarter salinity began to increase again. Chloride ranged from 31 to 85 mg/L, sodium ranged from 56 to 71 mg/L, and bromide ranged from 114 to 288 ug/L.

### Gallagher Well

Raw water quality was good throughout the quarter. Levels of constituents associated with salt water intrusion were very low as this well is located outside of the reach of tides. The chloride concentration was steady at 13 mg/L, sodium at 10 mg/L, and bromide at around 60ug/L

### Treatment Performance: Point Reyes Treatment Plant

Treatment was optimal throughout the quarter and finished water quality was excellent. Iron and manganese, the two most common contaminants, were not detected in treated water.

### Distribution System: Point Reyes

Of 22 routine samples collected for compliance with the Total Coliform Rule, there were no coliform positive samples this quarter. Chlorine residual concentrations throughout our distribution system were good and disinfection byproduct concentrations were moderate during the quarter.

The new Paradise Ranch Estates 4C tank was placed into service on April 9th after approval from the Division of Drinking Water.

## NOVATO RECYCLED WATER

### Deer Island Recycled Water Facility

The Deer Island recycled water facility produced water for 19 days in May. There were no coliform bacteria in any of the daily samples, and the water met all regulatory standards.

# 14

**MEMORANDUM**

To: Board of Directors September 3, 2021

From: Ryan Grisso, Water Conservation Coordinator

Subject: FY 2020/21 Fourth Quarter Progress Report -Water Conservation
V:\Memos to Board\Quarterly Reports\Year End Report 20_21\Water Conservation FY 2020_2021 Year End Report.docx

**RECOMMENDED ACTION:** Information

**FINANCIAL IMPACT:** None

## Water Conservation and Public Outreach Summary

This memo provides an update on water conservation and public outreach activities implemented during Fiscal Year 2020/21 (FY 21). Water Conservation participation numbers for FY 21 and the previous two fiscal years are summarized in Table 1 below.

**Table 1: Year End Water Conservation Program Participation (July through June: 2018 - 2021)**

| Program | FY 19 | FY 20 | FY 21 |
|---|---|---|---|
| Water Smart Home Surveys | 245 | 152 | 0 |
| Water Smart Commercial Surveys | 2 | 3 | 0 |
| Toilet Replacements (Residential) | 172 | 125 | 109 |
| Toilet Replacements (Commercial) | 3 | 0 | 2 |
| Retrofit on Resale (Dwellings Certified) | 174 | 170 | 225 |
| High Efficiency Washing Machine Rebates | 16 | 7 | 26 |
| Cash for Grass Rebates/Lawn be Gone | 18 | 12 | 22(1) |
| Water Smart Landscape Rebates | 8 | 10 | 16 |
| Weather Based Irrigation Controller Rebates | 19 | 17 | 28 |
| Pool Cover Rebates | 1 | 2 | 31 |
| Hot Water Recirculation Rebates | 4 | 1 | 6 |

(1) Cash for Grass/Lawn be Gone participants removed 13,906 square feet of turf versus 10,225 in FY 20 and 33,392 in FY 19.

## Water Conservation Programs

Water Smart Home Survey (WSHS) Program: This program provides the customer with an in-depth analysis of both their indoor and outdoor water use with water efficient recommendations for customers to implement. The WSHS Program also provides staff with an opportunity to present applicable rebate programs for which the participating customer may be eligible. This program was put on hold in FY 21 due to the COVID-19 situation.

Water Conservation Fixture Distribution: The District typically distributes water conserving fixtures at the front counter of the District Administration Building, on service calls and WSHSs, and at various public outreach events. However, currently (since the COVID-19 period began in March 2020), the fixtures have been distributed by delivery or by appointment where staff would

place the items in a bag or envelope out front. Fixtures include 1.5 to 1.75 gallons per minute (GPM) showerheads, 1.0 and 0.5 GPM sink aerators, hose nozzles (when available) and other related items. The District also offers commercial establishments installation of 0.5 GPM sink aerators on all hand-washing sinks when conducting a Water Smart Commercial Survey. Of note, the District did participate in a Drought Drop By event in June 2021, in which approximately 500 drought kits were distributed, which included a bucket, hose nozzle, showerhead, sink aerator, and shower timer.

High Efficiency Toilet (HET) Replacement Program: The District provides $125 (increased from $100 in May 2021) rebates for residential and commercial customers, for purchase and installation of qualified HETs (1.28 gallons per flush) and $200 (increased from $150 in May 2021) rebates for customers installing Ultra High Efficiency Toilets (1.1 gallons per flush or less, meeting the Maximum Performance "Premium" rating). In FY 21, the District rebated 109 residential toilets (15 of which were UHET).

Commercial Water Conservation Program: The Commercial Water Conservation Program currently contains the HET Rebate Program (previously covered in the High Efficiency Toilet Replacement Program), Water Smart Commercial Survey (WSCS), and a High Efficiency Clothes Washing Machine Rebate. In FY 21, the Water Smart Commercial Survey Program continued to be on hold due to the COVID-19 situation.

Retrofit on Resale: The District currently requires toilets (1.6 gallons per flush or less), showerheads (2.0 GPM) and bathroom sink aerators (1.5 GPM) to be certified by the seller before the close of escrow on any property sold in the District Novato and West Marin service areas. Toilet rebates are available and fixtures (showerheads and sink aerators) are available free to customers to help ease compliance with this requirement. In FY 21, the District received water conservation certificates for 225 properties sold in the District Novato and West Marin service areas, which is a big increase from previous fiscal years.

High Efficiency Clothes Washer Rebate Program: The District currently offers rebates for qualified high efficiency clothes washing machines through the Sonoma-Marin Saving Water Partnership High Efficiency Clothes Washer Program, with $100 (increased from $50 in May 2021) rebates paid directly by the District to customers. In FY 21, the District rebated 26 clothes washing machines. Participation continues to be well below historical participation levels (with the absence of an energy provider rebate in the market), but a nice increase this past fiscal year compared to the more recent past.

Cash for Grass Rebate Program: The District rebated 19 Cash for Grass projects and funded 3 Lawn be Gone (sheet mulching) projects, removing 13,906 square feet of irrigated turf in FY 21, for an average of 632 square feet per project. Cash for Grass program participation levels had a nice participation increase in FY 21, driven by the current drought situation. Staff expects major increases in lawn removal participation in FY 22.

Water Smart Landscape Rebate Program: The District supplies rebates to customers for improving landscape water use efficiency. Rebates are provided for drip irrigation installations, multi-stream/low volume sprinkler retrofits, mulch, rain sensors and other water use efficiency related retrofits. In FY 21, the District rebated 16 projects.

Weather Based Irrigation Controller Rebate Program: Rebates are available for purchase, installation and activation of District approved Smart Irrigation Controllers (Smart Controllers) at a minimum level of $200, or $30 per active station, up to $1,200. This rebate also extends to large landscape customers on a per meter basis. In FY 21 the District rebated 28 qualified controllers. There has been an increase in the availability of reasonably priced mobile device operated WiFi irrigation controllers, resulting in an increase in participation over the last few years. Staff expects a continued increase in participation into the next fiscal year.

Large Landscape Water Conservation Program: The Large Landscape Water Conservation Program consists of the Large Landscape Audit Program, the Large Landscape Budget Program, Water Smart Controller Rebate Program (previously covered in the Water Smart Irrigation Controller Rebate Program section) and the Large Landscape Water Smart Landscape Efficiency Rebate Program. All programs are aimed at assisting large landscape customers (dedicated irrigation and large mixed-use meters) to become more water use efficient in their landscape water management practices. In addition to the District's Large Landscape conservation efforts, the Sonoma Marin Saving Water Partnership implemented Qualified Water Efficient Landscaper (QWEL) trainings throughout the year.

## Public Outreach and Conservation Marketing

In FY21, the District continued working with Kiosk to implement the public communications plan (or public outreach plan) in response to a goal from the 2018 Strategic Plan, and kicked off a year-long enhanced social media campaign with weekly planned posts in Facebook, Twitter and Instagram. These posts include everything from Board Meeting advertisements, to historically significant events, to conservation programs and many others planned over the next year. Additionally, a "Dry Year" winter campaign was also initiated through social media to alert customers of the possible dry year conditions coming up. The District continues to monitor and

review the new website and make changes and updates as needed to keep it fresh and easily navigable. Most notably the website news stories are being updated regularly and the rotating news flash on the front page is adjusted for the most pertinent news stories for the given time period. All social media and website actions are presented to the Board with a monthly report from Kiosk and is included in the miscellaneous calendar of the Board packet.

Staff also uses the WaterSmart AMI dashboard and customer portal as a public outreach tool to help inform customers on water use patterns and leaks and has also used the group messenger function to deploy group emails to customers. A Fall and Spring Waterline newsletter was mailed to all Novato customers. In West Marin, a Summer Waterline was mailed to go along with the normally scheduled Spring West Waterline.

## Water Conservation and Public Outreach Budget and Staffing

Table 2 summarizes and compares the year end budget expenditures between the last three fiscal years (FY 19, FY 20 and FY 21). The FY 21 expenditures were consistent with a slight decrease from last year, but remained below budget as program participation continued at lower levels for Cash for Grass, toilet rebates, and other conservation programs in FY 21(a similar trend also experienced by other local water utilities and further effected by the COVID-19 situation during the last fiscal year). These expenditures are expected to increase in FY 22 with the increased rebate levels for the conservation programs and participation increasing due to the drought.

**Table 2: Water Conservation and Public Outreach Expenditures (July 2018-June 2021)**

| | FY 19 | FY20 | FY 21 |
|---|---|---|---|
| Total Budget | $380,000 | $390,000 | $390,000 |
| Actual Expenditures | $325,209 | $348,217 | $328,887 |

Staffing: Water Conservation is currently staffed by one full time Water Conservation Coordinator and one half time Water Conservation Technician. The District has also partnered with Sonoma County Water Agency through the Sonoma-Marin Saving Water Partnership to implement some of the District Water Conservation Programs including the WSHS program, however this has been put on hold in FY 21 due to the COVID-19 situation.

# 15

**MEMORANDUM**

To: Board of Directors September 3, 2021

From: Tony Williams, Assistant GM / Chief Engineer

Subject: FY 2020/21 Fourth Quarter Progress Report – Engineering Department
R:\CHIEF ENG\WILLIAMS\BUDGETS\FY20-21\YearEnd\Year End FY2021 BOD Memo.doc

**RECOMMENDED ACTION:** Information Only

**FINANCIAL IMPACT:** None

The primary purpose of this memorandum is to provide a year-end status report to the Board on the District's performance in completing budgeted FY 2020/21 Capital Improvement Projects (CIPs) in Novato and West Marin (including Oceana Marin) service territories. The memorandum also provides a summary of the total labor hours expended for both CIP and Developer projects. A significant number of developer projects were approved, designed and either initiated or completed construction in FY 2020/21 which did have an overall impact on the District's ability to complete CIP projects. The following table provides an overall summary of the District's CIP expenditures for all service areas.

SUMMARY

| Service Areas | CIP Project Costs ($) | | % Complete | |
|---|---|---|---|---|
| | Budget ($) | Actual ($) | Planned | Actual |
| Novato Water | 5,087,000 | 1,780,882 | 100 | 36 |
| Novato Recycled | 100,000 | 0 | 0 | 0 |
| West Marin (including OM) | 1,775,000 | 1,543,724 | 100 | 87 |
| TOTAL | 6,862,000 | 3,324,606 | 100 | 49 |

Performance Status for Capital Improvement Projects

A total of twenty-three (23) CIPs were originally budgeted in FY2020/21 for the Novato, West Marin water and Oceana Marin (OM) service areas but during the year, twenty-four (24) projects were added, five (5) were carried over, and one projects was deleted for a total of fifty-one (51) projects. Of these 51 Projects, 31 are under the lead responsibility of the Engineering Department for completion (23 in Novato and 8 in West Marin). The remaining projects are under the responsibility of the other departments. Of those 51 projects, a total of eight (8) were completed for a cost under the CIP expenditure threshold of $5,000 and therefore are not included in this report. The tables below provide a summary and status of the remaining 43 projects (31 Novato, 1 Recycle and 11 West Marin):

**Novato Service Area**

| DESCRIPTION | PROJECT COSTS AS OF JUNE 30, 2021 | | END OF FY21 | % COMPLETE |
|---|---|---|---|---|
| | Budget | Actual | Forecast | |
| *Replace Plastic TW Pipe <4"-Scown* | | *$149,003* | $150,000 | 100 |
| **Replace Plastic TW Pipe <4"-Wilson** | | **$16,307** | **$16,000** | **100** |
| *Replace CI Pipe – Grant Ave* | *$0* | *$209,903* | $200,000 | 100 |
| **Replace 2" AC Pipe (810') – Glen Rd** | **0** | **$228,705** | **$185,000** | **90** |
| Redwood Blvd Pipe Lowering | $0 | $10,507 | $10,000 | 100 |
| Novato Blvd Widening Diablo to Grant | $0 | $14,258 | $15,000 | 5 |
| San Mateo Tank Transmission Main | $910,000 | $82,300 | $75,000 | 10 |
| **Loop South/North Zone 2-Indian Valley Campus (partial extension)** | **$0** | **$8,612** | **$8,612** | **100** |
| **Replace PB- San Ramon, Vivian, Verissimo (21)** | | **$82,276** | **$80,000** | **100** |
| **Replace PB-Vineyard/San Joaquin, Wilson, Brooke (12)** | | **$44,198** | **$40,000** | **100** |
| **Replace PB-San Marin Dr, Ignacio Blvd (20)** | | **$80,098** | **$80,000** | **100** |
| **Replace Copper - Ganey Ct** | **$0** | **$45,712** | **$45,000** | **100** |
| *MSN B2 Utility Agreement Costs* | *$0* | *$10,733* | *$15,000* | *100* |
| Detector Check Assembly Repair/Replace | $100,000 | $87,653 | $85,000 | 100 |
| Anode Installations | $10,000 | $0 | $0 | 0 |
| *Asset Management Software Procurement/Imp.* | *$0* | *$6,239* | *$6,200* | *100* |
| Facilities Security Enhancements | $25,000 | $0 | $0 | 0 |
| San Marin Aqueduct Valve Pit (STP to Zone 2) | $110,000 | $0 | $0 | 0 |
| **Watershed Property – Vineyard Fence** | **$0** | **$35,453** | **$35,000** | **100** |
| **Rehab Black Pt Pressure Regulating Station** | **$0** | **$18,714** | **$20,000** | **15** |
| Office/Yard Building Renovation | $1,000,000 | $319,564 | $300,000 | 5 |
| Leveroni Creek Embankment Repair | $192,000 | $5,520 | $10,000 | 5 |
| Efficiency Improvements | $100,000 | $0 | $0 | 0 |
| STP – Chemical System Upgrades | $75,000 | $0 | $0 | 0 |
| Filter Underdrain/Media R&R` | $20,000 | $12,002 | $12,000 | 100 |
| **STP – Coat Top of Concrete Clearwells** | **$0** | **145,606** | **$125,000** | **100** |
| **STP – Lake Aeration Expansion** | **$0** | **$40,903** | **$41,000** | **100** |
| Old Ranch Rd Tank No. 2 | $500,000 | $135,732 | $150,000 | 10 |
| Hydro-pneumatic Tank Repairs | $30,000 | $5,260 | $6,000 | 4 |
| Lynwood Pump Station Motor Control Center | $400,000 | $220 | $5,000 | 0 |
| Crest PS Design/Construct, Rel. School Rd PS | $550,000 | $26,307 | $30,000 | 5 |
| Subtotal (Novato) | $4,987,000 | 1,785,149 | $1,699,842 | 36 |
| Other - Recycled Water Expenditures | $100,000 | $0 | $0 | 0 |
| **Total Novato** | $5,087,000 | $1,780,882 | $1,699,842 | 35 |

**West Marin Service Area**

| DESCRIPTION | PROJECT COSTS AS OF MAY 31, 2021 | | END OF FY21 | % COMPLETE |
|---|---|---|---|---|
| | Budget | Actual | Forecast | |
| **West Marin Water System Improvements** | | | | |
| Replace PRE Tank #4A | $1,000,000 | $813,080 | $856,283 | 100 |
| New Gallagher Well #2 | $75,000 | $280,789 | $250,000 | 25 |
| Gallagher Ranch Streambank Stabilization | $260,000 | $335,832 | $335,832 | 100 |
| Lagunitas Creek Bridge Pipe Replacement (Caltrans) | $100,000 | $846 | $1,000 | 5 |
| **PB Replace: SR1 Pt. Reyes - Caltrans** | **$0** | **$39,557** | **$38,848** | **100** |
| **PRE PS #2 Pumping Equipment** | **$0** | **$8,361** | **$8,361** | **100** |
| **Replace PRE 2" Galv Pipe - Balboa, Drakes View, Baywood** | **$0** | **$5,363** | **$6,500** | **10** |
| **Pt Reyes Well #2 Rehab** | **$0** | **$22,643** | **$22,643** | **100** |
| Subtotal (West Marin) | $1,485,000 | $1,506,471 | $1,523,135 | 80 |
| **Oceana Marin Sewer System** | | | | |
| Infiltration Repair | $40,000 | $3,950 | $8,500 | 100 |
| Tahiti Way Lift Pump 1 Assembly | $25,000 | $0 | $25,000 | * |
| OM Treatment and Storage Pond Rehabilitation | $225,000 | $33,303 | $35,000 | 12 |
| Subtotal (Oceana Marin) | $290,000 | $37,253 | $68,500 | 13 |
| **Total West Marin** | $1,775,000 | $1,543,724 | $1,591,635 | 71 |

Table Notes:
*Carry forward projects in italics*
Baseline projects with revised forecast budget increases (indicated by shaded box)
New projects added (**indicated in bold**)

Of the total 33 Novato Service Area projects, at total of sixteen (16) were completed. The project design was completed was several projects including the San Mateo Tank 24-inch Transmission Line, Leveroni Creek Embankment Repair, and Old Ranch Road Tank No. 2. Significant progress was made on the design of other key Novato projects including the Crest Pump Station and the Office Building Renovation. Due to multiple factors, including staff turnover, some larger projects had little progress including Anode Installation, San Marin Aqueduct Valve Pit, and Lynwood Pump Station. These projects were included in the approved FY 2021-22 CIP budget.

Of the total eleven (11) West Marin projects, three projects have been completed (constructed) not including projects below the $5,000 threshold. The engineering and design have also been completed for three remaining projects, Gallagher Well No. 2, Replace PRE 2" Galvanized Pipe, and the OM Treatment Pond Rehabilitation projects. However, these two

projects were unable to proceed to construction pending approvals or authorizations from outside agencies.

The actual total project expenditures for the West Marin Water CIPs are above the initial budget by approximately 2% but with additional grant and cost share proceeds for the Gallagher Ranch Streambank Stabilization Project, total District expenditures are within the budget total for West Marin Water. The design for the grant funded Oceana Marin Treatment and Storage Pond Rehabilitation project was completed in November 2020 but is still awaiting approval from FEMA and Cal OES for the construction phase funding.

Engineering Department Labor Hours

The Engineering Department provides a multitude of functions supporting overall operation, maintenance and expansion of water facilities. The major work classifications are: (1) General Engineering, (2) Developer Projects and (3) District (i.e., CIP) Projects. Out of the approximately 14,900 engineering labor hours available annually (less Conservation), the FY20-21 labor budget for Developer Projects and District Projects was 1,504 (10% of total) and 2,722 (18% of total), respectively. A chart of actual hours expended versus budgeted hours for both Developer and District projects during FY19-20 is provided in Attachment A. At the end of the fourth quarter, actual engineering labor hours expended for Developer work was 1,758 hours (versus 1,722 in FY19-20). With respect to District Projects, a total of 2,893 engineering labor hours have been expended (versus 2,428 in FY19-20) on Capital Improvement Projects.

# 16

**Item #16**

**MEMORANDUM**

To: Board of Directors September 3, 2021

From: Robert Clark, Operations / Maintenance Superintendent

Subject: FY 2020/21 Operations / Maintenance 4th Quarter Report
X:\MAINT SUP\2021\BOD\Q4 20-21 O&M Update.docx

**RECOMMENDED ACTION:** Information

**FINANCIAL IMPACT:** None

Operations Summary

Operations activities and accomplishments during FY2020/21 (FY 21) included completion of three capital improvement projects (Lake aeration expansion, Filter 3 underdrain rebuild and media replacement, Carbon changeout and under drain repair and Chlorine dioxide rebuild.). Operations staff also completed just over 150 routine maintenance tasks during the period from April - June with just 5% unplanned tasks. PG&E Time-of-Use (TOU) modifications required distribution operation to change all of the standard pumping schedules, however some pump station have been required to operate during some of the peak periods to maintain tank levels. Redwood tank inspections for one of the Novato tanks and two of the West Marin tanks were completed.

Stafford Production

STP did not produce water the second half of the FY 21, with fall production of 211 MG equaling total fiscal year production. Water was backfed into the lake from February 18 through April 30 with a total of 364 MG (~1120 AF) from SCWA ending with Stafford Lake at 184' June 30th and 46% capacity.

Novato Water System Flows

- Novato production was down 3% for the period of April-June compared to the same period last year; average daily production was 7.3 MGD, with a peak day demand of 9.3 MGD. The decrease was due to customer conservation efforts.
- Purchased recycled water for the period was 105.1 MG, up 20% from the April-June period last year. This increase volume was due primarily to the new services and the dryer weather this year.

West Marin System Flows, Demands and Storage

- West Marin was up 7% for the period of April – June average daily production was 215,163 gallons per day with a peak day demand of 400,810 gallons.
- Five year well inspection and cleaning was performed on Coast Gard wells. Casings on both wells looked good and flow continues to meet designs parameters. Periodic cleaning was also done on the Gallagher well which continues to deteriorate, and is maintaining 95 gpm.

- To address an increase in turbidity from Gallagher raw water pipeline was flushed removing settled manganese from the line. Staff will perform this flushing every two years to minimize settled solids impacts to water quality.

Oceana Marin

- During the period April-June, force main pump flow averaged 16,479 gallons per day with a peak day of 28,980 gallons, 12% higher than the same period last year. Limited discharge to the irrigation field occurred and pond freeboard was 9.8 feet at the end of June. Since flows were slightly higher than last year; water levels were kept higher to maintain an effective treatment process.
- Rebuild of transfer pump provided the reliability to move water from the treatment pond to the storage pond. Direct discharge from the treatment pond was also utilized to confirm this process continued to be a viable alternative.

Water Quality Summary

With an increase in turbidity in the PR system, Water Quality staff worked with Operations to determine cause and developed plans to flush wells, and Gallagher well pipeline. With the expectation of continued high salinity from the coast guard wells a plan was developed to supply temporary low salinity water for personal consumption. However due to conservation efforts and continued supply from the Gallagher well the tanks has not been put to use to-date. The five-year update to the Sanitary Sewer Management Plan was completed with a new lift station emergency response plan.

Maintenance Summary

Accomplishments during period April – June included five facility improvement projects and 170 routine maintenance tasks with just under 35% unplanned tasks. Population of new asset management program continued with all of the planned maintenance tasks now being tracked. An outline of a new meter maintenance program was developed and the first annual meter inspection began.

Cross-Connection Control (CCC)

- The District currently has 2,128 backflow devices with a goal to complete annual tests each year. For various reasons, 162 tests were not completed this year.
- 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 were found. Each

test takes 3-4 hours to perform following a custom test procedure for each site.

Building and Grounds

- PRE 4C Landscape and irrigation installation
- CG Well and Gallagher well 5-year maintenance and clean
- Spring weed control program was much lighter than in the past however we continue to see more tree issues which required staff to perform more tree work.

# 17

**MEMORANDUM**

To: Board of Directors

September 3, 2021

From: Drew McIntyre, General Manager
Ryan Grisso, Water Conservation Coordinator RG

Subject: Water Supply Communications Plan
I:\gm\bod misc 2021\water supply public outreach strategy 08_28_21.doc

**RECOMMENDED ACTION**: Information only

**FINANCIAL IMPACT**: Less than $20,000 (Included in FY2021/22 Budget)

As a result of the North Marin Water District 2018 Strategic Plan, a series of goals were developed. Goal 1, Water Supply, Quality and Reliability, included an objective to extend water supply planning and preparation to ensure long term water supply reliability (taking into account climate change and other factors). Goal 2, Customer Engagement and Service, focused on increased communication with customers to improve public understanding and support for District policies and to facilitate customer input and engagement. To help address Goal 2, the Board approved a Public Communications Plan in 2019 utilizing the services of Kiosk, a local Novato based marketing firm, and is currently in the second year of implementation. With respect to water supply reliability outlined in Goal 1, a $600,000 Regional Water Supply Resiliency Study administered by Sonoma County Water Agency (SCWA) and funded by the retail water agencies, including NMWD, was initiated in 2019. More recently, the Board approved moving forward with a Request for Proposal to hire a consultant to prepare a Local Water Supply Enhancement Study (included in the FY2020/21 Budget).

Because of the unusual intensity of this drought with its record low rainfall locally and across the west, along with the fires that are partly linked to the dry weather — people are paying a lot of attention to drought, water supply, conservation and other related topics and our customers have questions and concerns. Furthermore, while NMWD has an excellent record in terms of its long-term water supply planning and management and its extensive conservation and rebate programs, many customers don't know what NMWD has done to address water supply and drought-related issues. Accordingly, it is recommended that we launch a more robust water supply education effort this fall using the District's five key communication objectives: 1) Recognition; 2) Reach; 3) Educate; 4) Engage; and 5) Build Trust.

**Water Supply Outreach Strategy Elements**

- Develop and Communicate Clear Narrative Messages

    - NMWD has an excellent record in terms of its long-term water supply planning and management and its extensive conservation and rebate programs. What is needed is to better explain the history, the current situation, and future planning.

- Embed the Key Messages in Current Media and Publish it More Often

    - Increase Website Update Frequency: The District has an attractive, modern and up-to-date website. It is an excellent platform to carry enhanced water supply messaging and will be updated more frequently with water supply planning information.
    - Focus on new messaging: The current focus of messaging is the drought, and how people should save water which is important and necessary. This messaging can be enhanced to include more focus on the benefits of the District's decades of water supply planning. As part of this effort a focused water supply planning page on the website would be developed.
    - Leverage E-Newsletter Outreach: The District has email addresses for about half of our customers. This valuable bank of email addresses and cost-effective communication tool can be used to send out more frequent e-news blasts through the WaterSmart portal.
    - Targeted Messaging for Fall Waterline Newsletter: The Waterline newsletter is normally mailed out in Spring and Fall each year and can be used to provide customers with enhanced water supply planning messaging . For the upcoming Fall newsletter, a draft will be available at the September 21 Board meeting when consideration will be given to approving the Local Water Supply Enhancement Study that will provide recommended alternative(s) to develop additional water supply and an implementation plan.
    - Marin IJ Op-Ed: Prepare additional Marin Voice submission(s) to the Independent Journal. The next submission is recommended after Board approval of the Local Water Supply Enhancement Study.

- Hold Special Board Workshop as part of Local Water Supply Enhancement Study

    - This Special Board workshop will help obtain important Board and customer input during the decision making process as well as gain support necessary to implement Study recommendations.

# 18

**North Bay Water Reuse Authority**
**Board of Directors Meeting**
**July 26, 2021**
**DRAFT**

## 1. Call to Order

Vice Chair Ramos called the meeting to order at 9:32 a.m. on Monday, July 26, 2021. Due to Shelter in Place Orders, this meeting was a Zoom only meeting. Meeting participants and the public participated via the following link: https://us02web.zoom/j/83691236357.

## 2. Roll Call

| | | |
|---|---|---|
| **PRESENT:** | Belia Ramos, Vice Chair | Napa County |
| | Jack Baker | North Marin Water District |
| | Brian Barnacle | City of Petaluma |
| | Grant Davis | Sonoma Water |
| | Jack Gibson | Marin Municipal Water District |
| | Susan Gorin | Sonoma Valley County Sanitation District |
| | Sandeep Karkal | Novato Sanitary District |
| | Dennis Rodoni | Marin County |
| | Scott Sedgley | Napa Sanitation District |
| **ABSENT**: | Pierre Washington | City of American Canyon |
| | Rabi Elias | Las Gallinas Valley Sanitary District |

**OTHERS PRESENT:**

| | |
|---|---|
| Chuck Weir, Program Manager | Weir Technical Services |
| Kevin Booker | Sonoma Water |
| Lucy Croy | North Marin Water District |
| Jason Farnsworth | City of Petaluma |
| Jim Grossi | North Marin Water District |
| Rene Guillen | Brown & Caldwell |
| Pam Jeane | Sonoma Water |
| Drew McIntyre | North Marin Water District |
| Mark Millan | Data Instincts |
| Jim O'Toole | ESA |
| Larry Russell | Marin Municipal Water District |
| Mike Savage | Data Instincts |
| Paul Sellier | Marin Municipal Water District |
| Brad Sherwood | Sonoma Water |
| Jake Spaulding | Sonoma Water |
| Dawn Taffler | Kennedy Jenks Consultants |
| Tony Williams | North Marin Water District |

## 3. Public Comments

There were no members of the public.

**4. Introductions**
Introductions were not made.

**5. Board Meeting Minutes of April 19, 2021.**
On a motion by Director Baker, seconded by Director Barnacle, the minutes of the April 19, 2021, meeting were unanimously approved by the Board by a roll call vote.

**6. Report from the Chair**

**6.a Subgroup meeting of March 8, 2021**
The Board reviewed the May 4, June 8, and July 15 meetings of the subgroup. The group prepared, finalized, distributed, and tracked the results of the issues survey that was sent to all Board and TAC members. The subgroup also hosted the three county meetings as described in Agenda Item No. 11.

**7. Consultant Progress Reports**
The Board reviewed the consultant progress reports for the period March - June 2021.

**8. Authorize Sonoma County Water Agency to Amend Agreement for Program Management for North Bay Water Reuse Authority with Charles V. Weir dba Weir Technical Services.**
Program Manager Weir described the intent of the amendment and noted that it had been approved by County Water Agency earlier this month. The NBWRA Board is also required to approve the amendment. On a motion by Director Rodoni, seconded by Director Baker, the agreement amendment for Program Management Services with Charles V. Weir was unanimously approved by a roll call vote.

**9. Financial Reports for Fiscal Year Ending June 30, 2021.**
The Board reviewed the financial reports for the period ending June 30, 2021. Based on a question from Drew McIntyre, Jake Spaulding noted that there was an error on page 28 of the report. A formula got dropped from the spreadsheet and it will be corrected in the final report for the next meeting.

**10. Three-Year Agreement with Granicus for a DisclosureDocs Subscription to Manage and File Form 700s for NBWRA.**
Program Manager Weir described the purpose of the agreement and how it would simplify the Form 700 filing process. On a motion by Director Barnacle, seconded by Director Baker, the agreement with Granicus for a DisclosureDocs Subscription to Manage and File Form 700s was unanimously approved by a roll call vote.

**11. Summary of Three County Meetings**
Program Manager Weir provided a brief summary of the three county meetings as well as an introduction to Item No. 12, Future Direction and Next Steps for NBWRA. He indicated that the consultant team would provide a presentation on both items. He then introduced Rene Guillen to discuss the results of the survey and three county meetings. Mr. Guillen provided a brief history of NBWRA's cooperative successes with Phase 1 and Phase 2 and that the total value of projects is approximately $180,000,000. Nearly $39 million has been received from state and federal grants.

Mr. Guillen then summarized the three meetings and noted that the highest scoring issues were non potable and potable recycled water, drought response, stormwater management/flood control, and climate change/sea level rise. The results were only slightly different for water as compared to wastewater agencies. Director Barnacle asked about the distributed energy results as there seemed to be an error. Staff has since rechecked and concluded they were in fact accurate. For this topic, the overall score was 2.11, water agencies, 2.00 and wastewater agencies 2.20. Mr. Guillen then introduced Jim O'Toole to continue the presentation for Agenda Item No. 12.

**12. Future Direction and Next Steps for NBWRA**

Jim O'Toole continued the presentation as noted in Agenda Item No. 11. Mr. O'Toole noted that North Bay agencies all face common resiliency threats: Water supply / drought, saline intrusion, sea level rise, and changing regulations. Many of these issues go beyond water recycling and can best be addressed through a cooperative effort such as NBWRA and that NBWRA is well positioned to address a broader resilience planning approach that can evaluate funding source opportunities for each issue area. He further discussed four resilience areas and their potential funding opportunities: Recycled Water, Potable Reuse, Drought Contingency, and Sea Level Rise. He then discussed the possible funding from the new administration's Infrastructure Plan. Mr. O'Toole then discussed a potential roadmap and discussed the draft brochure included in the packet that could lead to the evolution of North Bay Water Reuse Authority to the North Bay Water Resilience Authority.

Mr. Weir summarized the discussion and outlined potential next steps that would include identifying potential projects and evaluating potential funding opportunities to develop funding strategies. This would ultimately lead to development of scopes of work, budget modifications, and potential modifications to the Memorandum of Understanding. A more detailed framework would be presented at the next Board meeting. At this point the presentation ended and the Board and TAC were asked to provide direction to the technical team.

Vice Chair Ramos and Directors Sedgley, Gorin, Barnacle, and Rodoni all spoke in favor of continuing to pursue additional opportunities for NBWRA as the cooperative program that has been developed is well suited to expand into other issue areas as discussed. Vice Chair Ramos summarized the discussion and asked the technical team to bring back potential options and recommendations for moving forward at the next meeting. No new budget for these activities was discussed. The technical team will use up to the current available budget to address the request.

**13. Phase 1: Status of Reconciliation and Closeout Activities**

Jake Spaulding gave an update on the reconciliation and close out activities for Phase 1. He noted that all projects have been completed and that the final date for closeout is September 30, 2021. He noted that the final report is in development and that they would be reaching out to the Phase 1 members for assistance in completing the report.

**14. Status of Phase 2**

Rene Guillen provided an update on the status of the Phase 2. Projects for SVCSD and Petaluma have been incorporated into the Phase 2 program and agreed to by Reclamation. A formal acceptance letter is in development and should be received within a few weeks.

**15. Items for the Next Agenda**
Items for the next Agenda include regular reports, Phase 1 and Phase 2 Status Reports, Water Bond Status, options for possible future projects, funding opportunities, budget considerations, and future meeting logistics.

**16. Comments from the Chair, Board, and Member Agencies.**
There were no comments from the Chair, Board, and Member Agencies. The Board discussed options for the next meeting and agreed on September 27, 2021, at the regular time of 9:30 a.m. Board members supported continuation of virtual meetings in order to minimize driving and associated impacts.

**17. Adjournment**
Vice Chair Ramos adjourned the meeting at 10:34 a.m. The next meeting will be Monday, September 27, 2021, at 9:30 a.m. via Zoom.

Minutes approved by the Board _____

Charles V. Weir
Program Manager

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# 19

# *DISBURSEMENTS - DATED AUGUST 19, 2021*

Date Prepared 8/17/21

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 | Alpha Analytical Labs | Lab Testing | $200.00 |
| 2 | Athens Administrators | July Indemnity Review Fee | 105.00 |
| 3 | Boothroyd, Norris | Refund Overpayment on Closed Account | 450.02 |
| 4 | Caltest Analytical Laboratory | Lab Testing | 165.90 |
| 5 | Chandrasekera, Carmela | Retiree Exp Reimb (Aug Health Ins) | 1,063.97 |
| 6 | Chemscan (ASA Analytics) | Pump Assembly (STP) | 512.13 |
| 7 | Cilia, Joseph | Retiree Exp Reimb (Aug Health Ins) | 372.37 |
| 8 | Diesel Direct West | Diesel (154 gal) ($678) & Gasoline (1,256 gal) ($5,251) | 5,929.11 |
| 9 | Ditch Witch West | Replacement Remote Control ('19 Ditch Witch) | 1,982.54 |
| 10 | Dryco Construction | Refund Security Deposit on Hydrant Meter Less Final Bill | 784.72 |
| 11 | Enterprise FM Trust | Monthly Leases for Chevy Colorado, F250'S (2), Nissan Rouges (3), Nissan Frontiers (2) & F150's (4) | 7,107.61 |
| 12 | Environmental Science Assoc | Prog Pymt#6: Gallagher Well No. 2 CEQA/Coastal Permit Services (Balance Remaining on Contract $69,975) | 22,280.46 |
| 13 | Fishman Supply Co | Brief Relief Urine Bags (70) ($191), Rain Overalls & Rain Jackets (Breit & Fike) ($230) | 420.30 |
| 14 | Frontier Communications | Leased Lines | 1,444.50 |
| 15 | Grainger | Miscellaneous Maintenance Tools & Supplies | 756.28 |
| 16 | Gunnilstam, Lars | Novato "Pool Cover" Rebate Program | 75.00 |
| 17 | Hach Co. | Phosphoric Acid (STP) | 360.71 |
| 18 | Hernandez, Carolina | Refund Alternative Compliance Reg 15 Deposit | 630.00 |

| Seq | Payable To | For | Amount |
|---|---|---|---|
| 19 | Heselton, Kevin | Refund Security Deposit on Hydrant Meter Less Final Bill | 217.11 |
| 20 | InfoSend, Inc. | July Processing Fee for Water Bills ($1,497) & Postage ($3,678) | 5,175.24 |
| 21 | International Dioxide Inc | Filter for STP | 296.65 |
| 22 | Jackson, David | Retiree Exp Reimb (Aug Health Ins) | 1,063.97 |
| 23 | Ken Grady Company, Inc | Magnetrol Level Controllers for Actifloc & GAC Filter Units (STP) | 3,570.50 |
| 24 | Latanyszyn, Roman | Retiree Exp Reimb (Aug Health Ins) | 372.37 |
| 25 | Lemos, Kerry | Retiree Exp Reimb (Aug Health Ins) | 1,063.97 |
| 26 | Maltby Electric | New Meter Main for PRE 4C | 598.70 |
| 27 | Manzoni, Alicia | Retiree Exp Reimb (Aug Health Ins) | 1,063.97 |
| 28 | Marin County Ford | Service Parts ('14 F150 & '18 Ford Transit Van) | 180.32 |
| 29 | County of Marin | Encroachment Permit (395 School Rd) | 448.54 |
| 30 | McLellan Co, WK | Misc Paving ($59,274) & Striping ($1,575) | 60,848.77 |
| 31 | McMaster-Carr Supply Co | Fuses (6), Cleaning Brush & Grinding Wheel Cleaner ($186) | 218.33 |
| 32 | North Bay Gas | Carbon Dioxide ($95), Nitrogen ($730) (STP), Acetylene, Breathing Air & July Cylinder Rental | 1,299.90 |
| 33 | Pace Supply | Nipples (2), Copper Pipe (180') ($4,450), Brass Coupling, Brass Plug (28) ($119), Hydrant Bury ($421), Gate Valve ($638), Dual Wedges (2) ($117) & T-Head Bolt & Nut (12) | 5,874.20 |
| 34 | PG&E | July Power: Bldgs/Yard ($5,550), Other ($212), Pumping ($49,473), Rect/Controls ($514) & Treatment ($188) | 55,937.27 |
| 35 | Philbrook, Mark S. | Novato "Toilet Rebate" Rebate Program | 200.00 |
| 36 | Point Reyes Light | Legal Ad: Notice of Exemption (11 Redwood Ave-Inverness) | 71.40 |
| 37 | Rauch Communication Consultant | Prog Pymt#12: Consulting Services Outreach Support (Balance Remaining on Contract $4,019) | 770.00 |

| Seq | Payable To | For | Amount |
|---|---|---|---|
| 38 | R & B Company | Couplings (12) ($2,488), Bushings (5), Caps (2) ($62), Clamp, Hydrant Extensions (4) ($516) & Meter Spuds (30) ($309) | 3,462.19 |
| 39 | Red Wing Shoe Store | Safety Boots (Ocodhain) | 191.72 |
| 40 | Shroyer, Jim & Toni | Novato "Cash for Grass" Rebate Program | 800.00 |
| 41 | Soiland Co., Inc. | Asphalt Recycling (5 tons) ($75) & Rock (32 yds) ($988) | 1,063.62 |
| 42 | S-Scapes (Michael Steiner) | Backflow Testing (115) | 6,900.00 |
| 43 | State Water Resources Control | Clean Drinking Water SRF Loan Principal & Interest-RW N Seg 2 (Pymt #9 of 20) | 116,128.88 |
| 44 | Tamagno Green Products | Sludge Removal from STP (60 yds) | 2,100.00 |
| 45 | Team Ghilotti Inc. | Prog Pymt#2: 6" AC Pipeline Replacement - Glen Rd (Balance Remaining on Contract $66,923) | 26,096.55 |
| 46 | TPx Communications | August Telephone Charges | 655.57 |
| 47 | Unicorn Group | Postage for Water Conservation Postcard (25,387) | 4,138.08 |
| 48 | Univar | Caustic Soda (13 Dry Tons) | 5,662.56 |
| 49 | USA BlueBook | Parts for STP ($169) & Bendable Hose Clamps | 220.12 |
| 50 | US Bank | July Safekeeping Treasury Securities | 59.00 |
| 51 | Volvo Construction Equipment | Service Parts (Various Compressors) | 840.82 |
| | | **TOTAL DISBURSEMENTS** | **$352,230.94** |

The foregoing payroll and accounts payable vouchers totaling $352,230.94 are hereby approved and authorized for payment.

Julie Blue 08/16/2021

Auditor-Controller Date

8/16/2021

General Manager Date

# *DISBURSEMENTS - DATED AUGUST 26, 2021*

Date Prepared 8/24/21

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

| Seq | Payable To | For | Amount |
|---|---|---|---|
| P/R* | Employees | Net Payroll PPE 8/15/21 | $154,307.69 |
| 90409* | Internal Revenue Service | Federal & FICA Taxes PPE 8/15/21 | 67,975.77 |
| 90410* | State of California | State Taxes & SDI PPE 8/15/21 | 15,408.04 |
| 90411* | CalPERS | Pension Contribution PPE 8/15/21 | 39,943.90 |
| 90412* | CalPERS | GASB68 Report & Schedule Fees-FY21 | 700.00 |
| 90413* | CalPERs | September Health Insurance Premium (Employer $48,498, Retirees $10,681 & Employee Contribution $10,604) | $69,782.51 |
| EFT* | US Bank | July Bank Analysis Charge (Lockbox $912 & Other $397 Less Interest $93) | $1,215.46 |
| 1 | Able Fence Company | Fence Parts for OM Ponds | 164.35 |
| 2 | Amazon/Genuine-Hardware | Tool Box for B/G ($184), Hard Drives for STP (6) ($423), PC Monitors Engineering (2) ($347), Ergonomic Chair ($228) & Miscellaneous Computer/Office Equipment ($406) | 1,587.88 |
| 3 | Associated Right of Way Services | Prog Pymt#9: Right of Way Real Estate Services for Gallagher Well #2 (Balance Remaining on Contract $30,754) | 900.00 |
| 4 | A.S.T.I. | Fire Service Testing (12) | 1,315.00 |
| 5 | AT&T | Leased Lines | 66.68 |
| 6 | Bank of Marin | Bank of Marin Loan Principal & Interest (Pymt 118 of 240) Aqueduct Energy Efficiency Project | 46,066.67 |
| 7 | Blue, Eileen | Exp Reimb: Clock for Engineering Dept | 16.22 |
| 8 | Chase | JP Morgan/Chase Loan Principal & Interest - AMI Project (Pymt #7 of 30) | 51,533.67 |
| 9 | Clipper Direct | Sept Commuter Benefit Program | 29.00 |

| Seq | Payable To | For | Amount |
|---|---|---|---|
| 10 | Comcast | August Internet Connection | 144.92 |
| 11 | Consolidated CM | Prog Pymt#2: Construction Management Services for NMWD Building Renovation Project (Balance Remaining on Contract $148,281) | 19,663.63 |
| 12 | Core Utilities, Inc | Consulting Services: July IT Support ($6,000), IT & SCADA Support for Novato Radio/Cell ($50), & PRTP Maintenance ($425), CORE Billing Maintenance ($950) & NMWD Board Meeting Assistance ($200) | 7,625.00 |
| 13 | Cummings Trucking | Delivery of Sand ($700) & Rock ($490) | 1,190.00 |
| 14 | CWEA | Membership Renewal (Reischmann) (9/21-8/22) (Budget $190) | 192.00 |
| 15 | Carolyn Drake | Refund Overpayment of Closed Account | 132.98 |
| 16 | Environmental Express | Filters (100) (Lab) | 195.20 |
| 17 | Fernandes, Joana | Novato "Toilet Rebate" Program | 125.00 |
| 18 | Fiserv/Bastogne Inc. | Unable to Locate Account | 123.90 |
| 19 | Fishman Supply Co | Misc Construction Supplies | 89.84 |
| 20 | Friedman's Home Improvement | Fence Parts for OM Ponds ($437) & Breakers for Valve Pit | 568.96 |
| 21 | Grainger | Miscellaneous Maintenance Tools & Supplies ($601) & Load Center for Valve Pit ($123) | 723.62 |
| 22 | Harrington Industrial Plastics | PVC Pipe (400') (STP) | 331.92 |
| 23 | HERC Rentals Inc. | Generator Rental (1 month) | 3,328.22 |
| 24 | InfoSend, Inc. | July Monthly Support Fee | 941.67 |
| 25 | Jones, Nancy | Replacement Check-Original Lost in Mail (Novato "Water Smart Landscape Efficiency" Program) | 200.00 |
| 26 | Kehoe, Chris | Exp Reimb: D2 Renewal | 130.00 |
| 27 | Kelly Services, Inc. | Organic Chemist Temp Services (6/28-8/1/21) | 6,594.62 |
| 28 | Lechner, Lisa | Novato "Hot Water Recirculation System" | 100.00 |

| Seq | Payable To | For | Amount |
|---|---|---|---|
| 29 | Lincoln Life Employer Serv | Deferred Compensation PPE 8/15/21 | 9,425.74 |
| 30 | McLellan Co, WK | Misc Paving | 6,231.00 |
| 31 | McMahon, Kay | West Marin "Water Smart Landscape Efficiency" Program Residential | 54.90 |
| 32 | Nationwide Retirement Solution | Deferred Compensation PPE 8/15/21 | 1,020.00 |
| 33 | NEXGEN | Asset Management Software Annual Subscription (7/1/21-6/30/22) | 26,000.00 |
| 34 | Yves Nixon | Refund Overpayment on Open Account | 800.00 |
| 35 | | Vision Reimbursement | 184.00 |
| 36 | O'Leary, Imelda A. | Novato "Pool Cover" Rebate Program | 75.00 |
| 37 | O'Malley, John | Novato "Toilet Rebate" Program | 125.00 |
| 38 | Pace Supply | Copper Pipe (140') ($644), 4" Manifold (Spring Brook Green Homes) ($2,126), Couplings (36) ($718), Nipples (10) & Clamps (187) ($1,044) | 4,566.83 |
| 39 | Pearlman, Avram | Exp Reimb: Mileage | 84.34 |
| 40 | Point Reyes Light | Legal Notice on 8/5: Salinity Intrusion Into Pt Reyes Well Supply | 165.00 |
| 41 | Point Reyes Prop Mgmt Assn | August HOA Fees (25 Giacomini Rd) | 75.05 |
| 42 | R & B Company | Clamps (2) ($490) & Corp Stops (4) ($1,033) | 1,523.34 |
| 43 | Skewes-Cox, Amy | Prog Pymt#10: Environmental/CEQA Support on Office/Yard Refurbish (Balance Remaining on Contract $19,451) | 1,245.00 |
| 44 | Soiland Co., Inc. | Asphalt Recycling (6 tons) | 88.35 |
| 45 | Solar, Rosalia | Exp Reimb: Table Corner Protectors | 8.34 |
| 46 | Sonoma County Water Agency | July Contract Water | 693,849.75 |
| 47 | SPG Solar Facility XII, LLC | July Energy Delivered Under Solar Services Agreement | 9,008.93 |
| 48 | Syar Industries Inc | EZ Street Asphalt (6 tons) | 1,035.14 |
| 49 | Township Building Services | July Janitorial Services | 2,035.48 |

| Seq | Payable To | For | Amount |
|---|---|---|---|
| 50 | USA North 811 | Regulatory Cost for 2020 California Underground Service Alert Tags (5,720) | 2,684.64 |
| 51 | Valls, Joseph | Novato "Toilet Rebate" Program | 125.00 |
| 52 | VWR International LLC | Titrant, Bromide, Nitrite, Phenolphthalein Solution, Chlorate, Phosphate-Phosphorus & Bromide Standards (Lab) | 399.39 |
| 53 | Waste Management | Green Waste Disposal | 492.49 |
| 54 | Watkins, Jeff | Exp Reimb: Tire for District Vehicle ('21 Nissan Rogue) | 203.54 |
| 55 | White, Blayney | Refund Overpayment on Open Account | 330.60 |
| 56 | White & Prescott | Prog Pymt#32: Residence Inn Water Line Easement (Balance Remaining on Contract $62,885) ($270), Prog Pymt#33: AEEP Easement Support-B2 Reach A (Balance Remaining on Contract $59,735) ($3,150) & Prog Pymt#34: ROIC California Residence Inn (Balance Remaining on Contract $59,420) ($315) | 3,735.00 |
| 57 | Winzer Corporation | 3 Ply Masks (2,000) | 570.98 |
| | | **TOTAL DISBURSEMENTS** | **$1,259,557.15** |

The foregoing payroll and accounts payable vouchers totaling $1,259,557.15 are hereby approved and authorized for payment.

Julie Blue 08/24/2021

Auditor-Controller Date

08/24/2021

General Manager Date

*Prepaid

# *DISBURSEMENTS - DATED SEPTEMBER 2, 2021*

Date Prepared 8/31/21

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 |
|---|---|---|---|
| *90414 | US Bank Card | OSHA Standards Training (8/23-8/26) ($775), Monitor Arm ($447), CA Building Code Reference Book ($358), Costco-Bottled Water for Construction ($486), DE-9 Filing ($39), HVAC Filters ($295), Zoom for Board Meetings ($47) & Tools for Elect/Mech ($325) | $2,772.55 |
| 1 | All Star Rents | Propane (5 gal) | 19.91 |
| 2 | Arrow Benefits Group | August Dental Admin Fee | 305.10 |
| 3 | A.S.T.I. | Fire Service Testing (10) | 1,070.00 |
| 4 | AT&T | August Internet Service | 90.25 |
| 5 | AT&T | Telephone ($69), Fax ($88), Leased Lines ($142) & Data ($285) | 584.43 |
| 6 | Belani, Jay | Novato "Cash for Grass" Rebate Program | 800.00 |
| 7 | Bowden Laurel | Novato "Cash for Grass" Rebate Program | 800.00 |
| 8 | CMSA | Ferric Chloride (250 gal) | 470.79 |
| 9 | Dias, Diane | Novato "Smart Irrigation Controller" Program | 180.00 |
| 10 | Ditch Witch West | Press Washer Tip (Vac #97) | 276.61 |
| 11 | Dorville, Ronald E. | Novato "Hot Water Recirculation System" Rebate Program | 100.00 |
| 12 | Durkin Signs & Graphics | Recycled Water Decals (500) | 531.65 |
| 13 | Evoqua Water Technologies LLC | Service on Lab Deionization System | 296.71 |
| 14 | John Feeney | Refund Overpayment on Open Account | 1,468.87 |
| 15 | Fishman Supply Co | Urine Relief Bags (170) ($509) & Nitrile Gloves (824) ($295) | 804.05 |

| Seq | Payable To | For | Amount |
|---|---|---|---|
| 16 | Fisher Scientific | Satwipes (200) ($47) & Calibration Standard (Lab) | 92.25 |
| 17 | Friedman's Home Improvement | Parts for OM Ponds Fence & Shed | 331.27 |
| 18 | Grainger | Miscellaneous STP Tools & Supplies ($363), Tubing for STP Chemical Feed ($111) & Spill Containment Unit ($1,183) (STP) | 1,656.17 |
| 19 | Hach Co. | Ascorbic Acid Powder Pillows (400) (STP) | 152.16 |
| 20 | Ignacio Place Apartments | Refund Overpayment on Open Account | 361.12 |
| 21 | InfoSend, Inc. | Print & Insert Notice for WQ Report (15,283) | 630.39 |
| 22 | Kaiser Foundation Health Plan | DMV/DOT Physical ($115) (Breit) & Pre Employment Physical ($130) (Sylvester & Ziemer) | 245.00 |
| 23 | | Vision Reimbursement | 114.00 |
| 24 | Kelly Services, Inc. | Organic Chemist Temp Services (Lab) (40 hrs) | 2,462.40 |
| 25 | Department of Labor and Industries Washington | Quarterly Fee for WA Worker's Comp Insurance for Employee Working Remotely | 40.51 |
| 26 | LGVSD | Recycled Water Deliveries (5/1/21-6/30/21) | 3,237.01 |
| 27 | The Madera Owners Assoc | Return Payment-Not Our Customer | 1,546.63 |
| 28 | McLellan Co, WK | Misc Paving | 6,389.13 |
| 29 | Michael Baker International | Prog Pymt#11: Engineering Services-Prepare Additional Inundation Map & EAP for Stafford Dam (Balance Remaining on Contract $2,676) | 1,539.00 |
| 30 | Mutual of Omaha | Sept Group Life Insurance Premium | 1,015.96 |
| 31 | North Bay Land Co. LLC CO: Trevor Ham | Refund Security Deposit on Hydrant Meter Less Final Bill | 1,245.45 |
| 32 | Pace Supply | Clamps (15) ($428) & Rubber Meter Gaskets (350) ($149) | 576.57 |
| 33 | Pape Machinery Inc. | Service Parts ('04 Backhoe) | 763.79 |
| 34 | Pelham, Peter | Novato "Cash for Grass" Rebate Program | 646.00 |
| 35 | Point Reyes Light | Legal Notice on 8/12: Salinity Intrusion Into Pt Reyes Well Supply | 171.00 |

| Seq | Payable To | For | Amount |
|---|---|---|---|
| 36 | Preferred Alliance, Inc. | Pre-Employment Physical (Sylvester) | 42.00 |
| 37 | R & B Company | Nipples (10) & Reducers (5) ($130) | 144.30 |
| 38 | Rodich, Lynn | Novato "Pool Cover" Rebate Program | 75.00 |
| 39 | Safeguard Business Systems Inc | Accounts Payable Checks (5,000) | 616.38 |
| 40 | Sigma Pneumatics, Inc. | Jack Hammer Parts | 358.98 |
| 41 | | Vision Reimbursement | 368.00 |
| 42 | Soiland Co., Inc. | Asphalt Recycling (11 tons) ($161) & Rock (16 yds) ($499) | 659.79 |
| 43 | Soule, Anthony | Novato "Washer Rebate" Program | 50.00 |
| 44 | Syar Industries Inc | Sand (15 yds) | 913.72 |
| 45 | Thatcher Company of California, Inc. | Ferric Chloride (5 tons) ($3,627) & Ferric Sulfate (3 tons) ($3,775) | 7,402.57 |
| 46 | Unicorn Group | "Irrigated with Recycled Water" Yard Signs & Posts (100 each) | 813.75 |
| 47 | United Parcel Service | Delivery Service on Air Compressor for Lake Aeration | 25.13 |
| 48 | Univar | Sodium Hypochlorite (PRTP) (200 gal) | 153.82 |
| 49 | Van Bebber Bros | Pipe for Welding Shop (21') | 105.31 |
| 50 | VWR International LLC | Graduated Cylinders ($125) & Glass Beakers (4) ($75) (Lab) | 199.96 |
| 51 | Waste Management | Green Waste Disposal | 283.28 |
| 52 | ZORO | E/M Small Tools | 498.01 |
| | | **TOTAL DISBURSEMENTS** | **$46,496.73** |

The foregoing payroll and accounts payable vouchers totaling $46,496.73 are hereby approved and authorized for payment.

Julie Blue — 08/31/2021

Auditor-Controller — Date

[signature] — 08/31/2021

General Manager — Date

*Prepaid

**Notice:**

Seasonal salinity intrusion has occurred into two of North Marin Water District's wells serving the West Marin communities of Point Reyes Station, Olema, Inverness Park, and Paradise Ranch Estates. Now that sodium has reached 50 mg/L, North Marin Water District will be publishing this notice weekly to keep you informed about the sodium concentration in drinking water so you may be able to make informed dietary choices.

The table below lists the most recent concentrations for sodium in the West Marin water supply. While there is no direct health concern from salt for most people at this concentration, customers that are on sodium restricted diets should consult their physicians to see if additional sodium is a concern for them.

| Date | Sodium | Chloride | Units |
|---|---|---|---|
| 8/8/21 | 23.8 | 34.9 | mg/L* |
| 8/1/21 | 57.5 | 131 | mg/L* |
| 7/25/21 | 21.1 | 25.1 | mg/L* |

*milligrams per liter

If the sodium concentration reaches 115 mg/L (a value representing 10% of the recommended daily intake for sodium) NMWD will start making treated drinking water with a lower salt content available to those customers on sodium-restricted diets. This water will be available at bottle filling stations on the former Coast Guard housing property, at the end of Commodore Webster Drive. When the sodium concentration reaches the threshold, information about this program will be found at www.nmwd.com/wq where you'll also find the annual report about high quality of the drinking water we serve to your tap.

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| Date | Sodium | Chloride | Units |
|---|---|---|---|
| 8/15/21 | 26.6 | 56.1 | mg/L* |
| 8/8/21 | 23.8 | 34.9 | mg/L* |
| 8/1/21 | 57.5 | 131 | mg/L* |
| 7/25/21 | 21.1 | 25.1 | mg/L* |

*milligrams per liter

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| Date | Sodium | Chloride | Units |
|---|---|---|---|
| 8/22/21 | 110 | 307 | mg/L* |
| 8/15/21 | 26.6 | 56.1 | mg/L* |
| 8/8/21 | 23.8 | 34.9 | mg/L* |
| 8/1/21 | 57.5 | 131 | mg/L* |

*milligrams per liter

If the sodium concentration reaches 115 mg/L (a value representing 10% of the recommended daily intake for sodium) NMWD will start making treated drinking water with a lower salt content available to those customers on sodium-restricted diets. This water will be available at bottle filling stations on the former Coast Guard housing property, at the end of Commodore Webster Drive. When the sodium concentration reaches the threshold, information about this program will be found at www.nmwd.com/wq where you'll also find the annual report about high quality of the drinking water we serve to your tap.

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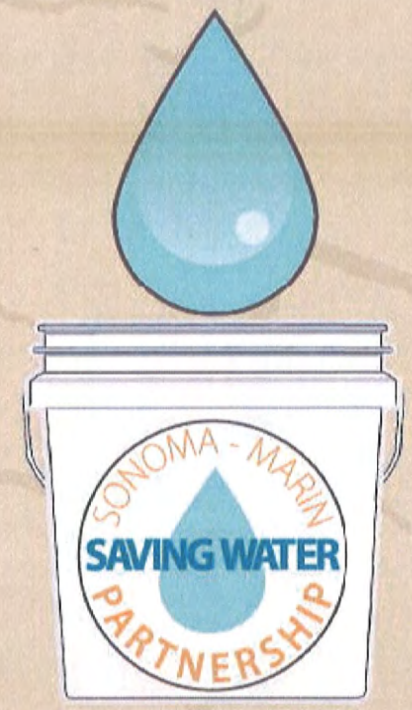
| Date | Sodium | Chloride | Units |
|---|---|---|---|
| 8/29/21 | 36.7 | 37.7 | mg/L* |
| 8/22/21 | 110 | 307 | mg/L* |
| 8/15/21 | 26.6 | 56.1 | mg/L* |
| 8/8/21 | 23.8 | 34.9 | mg/L* |

*milligrams per liter

If the sodium concentration reaches 115 mg/L (a value representing 10% of the recommended daily intake for sodium) NMWD will start making treated drinking water with a lower salt content available to those customers on sodium-restricted diets. This water will be available at bottle filling stations on the former Coast Guard housing property, at the end of Commodore Webster Drive. When the sodium concentration reaches the threshold, information about this program will be found at www.nmwd.com/wq where you'll also find the annual report about high quality of the drinking water we serve to your tap.




# DROUGHT DROP BY

## August 21 - 8am to 12pm

**Pick up a FREE water-saving kit.**

### Marin County Locations:

**Corte Madera**
Marin Water – 220 Nellen Ave

**Novato**
North Marin Water District – 999 Rush Creek Pl

www.SavingWaterPartnership.org

**MEMORANDUM**

To: Board of Directors

September 3, 2021

From: Julie Blue, Auditor-Controller JB

Subj: Security of Funds Invested in LAIF
t:\ac\board reports\board memos\2021\laif\laif investements.docx

**RECOMMENDED ACTION: None - Information Only**

**FINANCIAL IMPACT: None**

**Background**

The topic of the security of funds invested in the Local Agency Investment Fund (LAIF) has been brought up at recent board meetings. The LAIF program enables agencies to participate in a major portfolio which invests billions of dollars, using the expertise of the State Treasurer's Office investment staff. See attachment 1 for a description of the LAIF program. Oversight is provided by the five-member Local Agency Investment Advisory Board. LAIF funds are managed by the California State Treasurer's office and are protected by statute. Due to these statutes, the State is unable to seize LAIF funds even in the case of a budget deficit or delayed budget adoption, see Attachment 2. Additionally, under federal regulations, the state cannot declare bankruptcy therefore money in LAIF is not subject to transfer, loan, or seizure by any state official or state agency.

The District's policy number 1, Auditor-Controller Statement of Investment, is reviewed annually. As part of the annual process, staff reviews governing statutes, investment options, best practices, and brings any changes to the policy to the Board for consideration. Under the review, staff considers the District's investment options to ensure that the policy remains up to date with the goal of fulfilling its primary investment criteria of safety of principal and the secondary criteria of liquidity. The most recent review was completed in September 2020 and adopted by the Board on October 6, 2020.

**LAIF Information**

The California State Treasurer's office manages the State's Pooled Money Investment Account (PMIA). By pooling the cash deposited by State agencies LAIF is able to invest through a diversified portfolio while saving on security purchase costs due to economies of scale. The PMIA holds three types of funds: the State's general fund, funds from State agencies, and LAIF deposits. The nature of the custodial relationship of the State's role in LAIF and the nature of funds in LAIF limits the ability of the State to seize funds. As shown in Attachment 3, the PMIA

portfolio is primarily made up of Treasuries, Certificates of Deposits, Commercial Paper, and Agencies (bonds issued or guaranteed by US federal government agencies).

LAIF deposits are non-state funds and the status of LAIF deposits in the PMIA are covered under several Government Code sections as listed below:

- Section 16305.9(b) states that "all money in the Local Agency Investment Fund is nonstate money,"
- Section 16310(c) and (d)(1) excludes LAIF from PMIA funds that can be loaned from the PMIA,
- Section 16429.3 prevents moneys in LAIF from "impoundment or seizure by any state official or state agency," and
- Section 16429.4 guarantees against impairment the ability to withdraw moneys from LAIF even if a State budget has not been adopted.

**LAIF Proportional Investment**

Funds transferred from LAIF are available for use by the next business day. Due to the safety and liquidity of LAIF investments it is not uncommon for special districts to primarily invest their funds in LAIF. Attachment 3 shows the number of Special Districts that participate is 1,428 which make up 59.87% of all participating agencies. As of July 31, 2021, Special Districts are the largest contributor at $15.4 billion of the $35.1 billion dollars invested. A survey of local Special Districts show that most agencies invest their funds mainly in LAIF. These agencies include Novato Sanitary District (>91%), Las Gallinas Valley Sanitary District (>97%), Marin Municipal Water District (>85%), and Central Marin Sanitation Agency (>97%). The District currently holds more than 80% of its investment portfolio in LAIF.

LOCAL AGENCY INVESTMENT FUND

## Program Description

The Local Agency Investment Fund (LAIF), a voluntary program created by statute, began in 1977 as an investment alternative for California's local governments and special districts and it continues today under Treasurer Fiona Ma's administration. The enabling legislation for the LAIF is Section 16429.1 et seq. of the California Government Code.

This program offers local agencies the opportunity to participate in a major portfolio, which invests hundreds of millions of dollars, using the investment expertise of the State Treasurer's Office professional investment staff at no additional cost to the taxpayer.

The LAIF is part of the Pooled Money Investment Account (PMIA). The PMIA began in 1955 and oversight is provided by the Pooled Money Investment Board (PMIB) and an in-house Investment Committee. The PMIB members are the State Treasurer, Director of Finance, and State Controller.

The Local Investment Advisory Board (LIAB) provides oversight for LAIF. The Board consists of five members as designated by statute. The State Treasurer, as Chair, or her designated representative, appoints two members qualified by training and experience in the field of investment or finance, and two members who are treasurers, finance or fiscal officers or business managers employed by any county, city or local district or municipal corporation of this state. The term of each appointment is two years or at the pleasure of the Treasurer.

All securities are purchased under the authority of Government Code Section 16430 and 16480.4. The State Treasurer's Office takes delivery of all securities purchased on a delivery versus payment basis using a third party custodian. All investments are purchased at market and a market valuation is conducted monthly.

Additionally, the PMIA has Policies, Goals and Objectives for the portfolio to make certain that our goals of Safety, Liquidity and Yield are not jeopardized and that prudent management prevails. These policies are formulated by Investment Division staff and reviewed by both the PMIB and the LIAB on an annual basis.

The State Treasurer's Office is audited by the Bureau of State Audits on an annual basis and the resulting opinion is posted to the State Treasurer's Office website following its publication. The Bureau of State Audits also has a continuing audit process throughout the year. All investments and LAIF claims are audited on a daily basis by the State Controller's Office as well as an internal audit process.

Under Federal Law, the State of California cannot declare bankruptcy, thereby allowing the Government Code Section 16429.3 to stand. This Section states that "moneys placed with the Treasurer for deposit in the LAIF by cities, counties, special districts, nonprofit corporations, or qualified quasi-governmental agencies shall not be subject to either of the following: (a) transfer or loan pursuant to Sections 16310, 16312, or 16313, or (b) impoundment or seizure by any state official or state agency."

During the 2002 legislative session, California Government Code Section 16429.4 was added to the LAIF's enabling legislation. This Section states that "the right of a city, county, city and county, special district, nonprofit corporation, or qualified quasi-governmental agency to withdraw its deposited moneys from the LAIF, upon demand, may not be altered, impaired, or denied in any way, by any state official or state agency based upon the state's failure to adopt a State Budget by July 1 of each new fiscal year."

The LAIF has grown from 293 participants and $468 million in 1977 to 2,385 participants and $35.1 billion at the end of July 2021

LOCAL AGENCY INVESTMENT FUND

# LAIF Money Protected by Statute

The State of California cannot borrow or withhold LAIF money. Recent discussions about the State's budget deficit have generated questions from LAIF agencies and their oversight boards about the safety and accessibility of money invested with LAIF.

- Can the State borrow LAIF dollars to resolve the budget deficit?
  - No. California Government Code 16429.3 states that money placed with the Treasurer for deposit in the LAIF by cities, counties, special districts, nonprofit corporations, or qualified quasi-governmental agencies shall not be subject to either of the following:
    (a) Transfer or loan pursuant to Sections 16310, 16312, or 16313.
    (b) Impoundment or seizure by any state official or state agency.

- Can the State withhold LAIF moneys if the State fails to adopt a budget by the June 30th deadline?
  - No. California Government Code 16429.4 which was added to the LAIF's enabling legislation during the 2002 session states that the right of a city, county, city and county, special district, nonprofit corporation, or qualified quasi-governmental agency, to withdraw its deposited money from the LAIF upon demand may not be altered, impaired, or denied in any way by any state official or state agency based upon the States failure to adopt a State Budget by July 1 of each new fiscal year.

Questions regarding the LAIF program may be directed to LAIF at (916) 653-3001 or by email.

# PMIA/LAIF Performance Report as of 08/13/21

## PMIA Average Monthly Effective Yields[1]

| | |
|---|---|
| **Jul** | **0.221** |
| Jun | 0.262 |
| May | 0.315 |

## Quarterly Performance Quarter Ended 06/30/21

| | |
|---|---|
| LAIF Apportionment Rate[2]: | 0.33 |
| LAIF Earnings Ratio[2]: | 0.00000897371743018 |
| LAIF Fair Value Factor[1]: | 1.00008297 |
| PMIA Daily[1]: | 0.22% |
| PMIA Quarter to Date[1]: | 0.30% |
| PMIA Average Life[1]: | 291 |

## Pooled Money Investment Account Monthly Portfolio Composition [1] 07/31/21 $181.8 billion

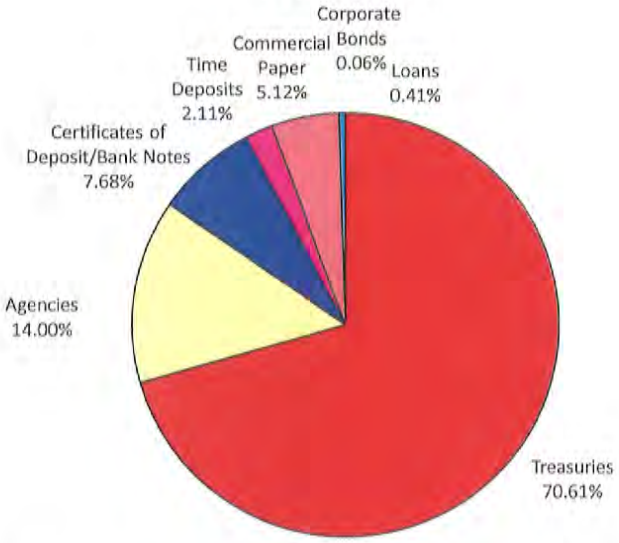



Chart does not include 0.01% of mortgages. Percentages may not total 100% due to rounding.

**Daily rates are now available here.** View PMIA Daily Rates

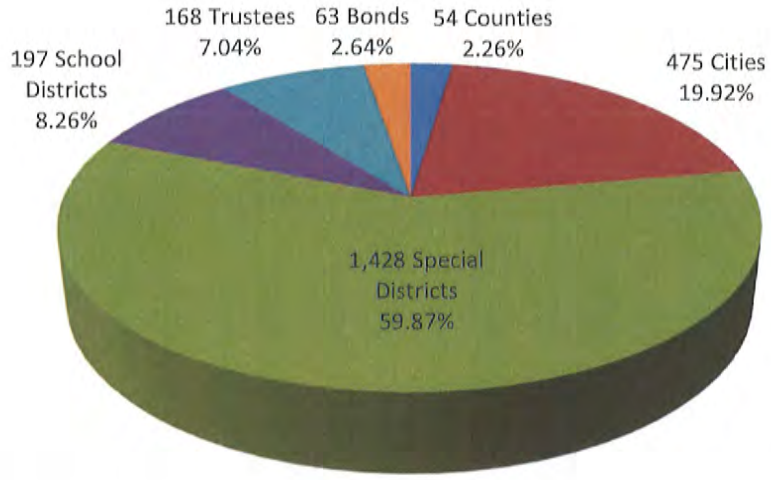
*Notes: The apportionment rate includes interest earned on the CalPERS Supplemental Pension Payment pursuant to Government Code 20825 (c)(1) and interest earned on the Wildfire Fund loan pursuant to Public Utility Code 3288 (a).*

Source:
[1] State of California, Office of the Treasurer
[2] State of Calfiornia, Office of the Controller

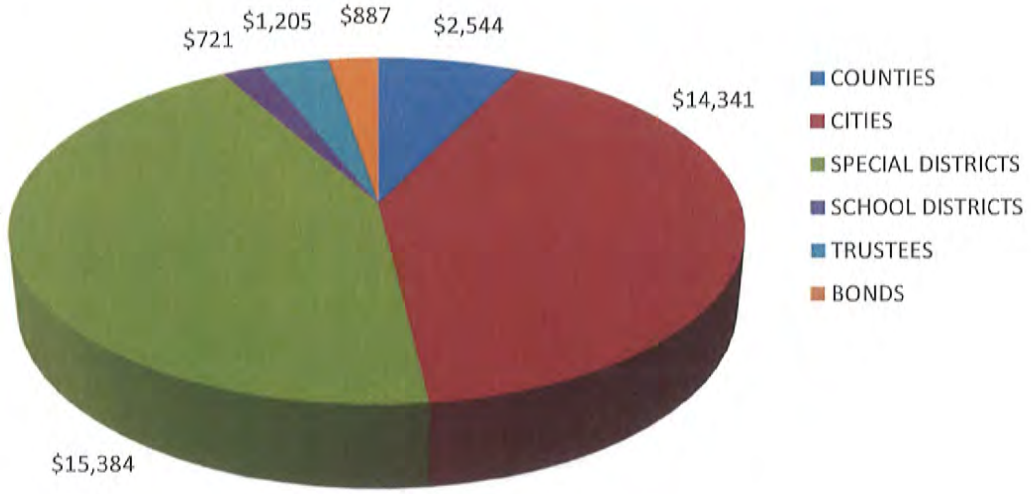
# LAIF STATISTICS AS OF 7/31/21

| | | Balance By Type | Participation | % of Fund |
|---|---|---|---|---|
| 54 | COUNTIES | 2,544,426,552.23 | 2.26% | 7.25% |
| 475 | CITIES | 14,340,650,066.81 | 19.92% | 40.88% |
| 1,428 | SPECIAL DISTRICTS | 15,384,241,926.02 | 59.87% | 43.85% |
| 197 | SCHOOL DISTRICTS | 720,857,587.13 | 8.26% | 2.05% |
| 168 | TRUSTEES | 1,205,426,285.20 | 7.04% | 3.44% |
| 63 | BONDS | 887,375,425.89 | 2.64% | 2.53% |
| **2,385** | **Fund Balance:** | **$35,082,977,843.28** | **100.00%** | **100.00%** |

Participation:




Balance by Type (dollars in millions):



# Critics: Tighten water policies

## DROUGHT

More conserving urged as Marin reservoirs fall

Marin Independent Journal

**By Will Houston**

whouston@marinij.com

Water management experts and residents are questioning whether the Marin Municipal Water District has done enough to curtail water use as reservoir supplies approach critical low levels.

The district's seven reservoirs, which supply 191,000 residents, are only 40% full and at risk of going dry by next summer if California's historic drought continues to worsen.

Longstanding emergency plans require that if reservoirs reach below 38% of capacity, or 30,000 acre-feet of water, as of Dec. 1, the area would be in such danger of running out of water that the district should implement drastic measures. These include banning all lawn watering seven days per week, enforceable by fines.

But now that ominous trigger is nearly here. The reservoirs' combined capacity is expected to fall below 38% by the end of this month or early September, according to the district's projections.

The district says that for now it has no plans to impose the tougher rules before Dec. 1, but could if needed.

Some residents and urban water experts are wondering whether district officials should tighten the restrictions sooner, rather than continue to allow residents to water lawns, golf courses and refill pools — and risk running out next summer.

Newsha Ajami, the director of urban water policy at Stanford University, said lawn watering should have been banned several months ago.

"Waiting till December is really a bad idea," Ajami said. "Every drop of water they can save now reduces their need to find emergency water."

Corte Madera resident and ratepayer Beryn Hammil has been pressing the district on why it still allows certain golf courses to use drinking water supplies when the district could run out of water next year.

"Why are you waiting until it's a dire emergency until you make these decisions?" Hammil asked the district board earlier this month.

Ben Horenstein, the district general manager, said more drastic steps of banning outdoor watering do have an impact on people's lives, but said the district will consider all options as needed.

"Sometimes there are unintended consequences for these sorts of decisions," Horenstein said. "I think the board is trying to be very thoughtful on taking the right action at the right time given the circumstances that we're in."

Since April, the water district has mandated its ratepayers in central and southern Marin to collectively cut water use by 40% compared to 2018-2020 usage. So far, residents have only reached a peak of 28% nearly four months in. The district restricted outdoor sprinkler use from two days to just one day per week last month in the hopes of stretching supplies.

Reservoir supplies are expected to reach about 25% capacity, or 20,000 acre-feet, in December if current conservation levels hold. An acre-foot is enough water to cover an acre a foot deep.

Achieving the conservation targets is critical, district staff say, to give the agency enough time to have complex emergency water supply projects — such as a pipeline across the Richmond-San Rafael Bridge to pump in Sacramento Valley water — in place by next summer. Reservoir supplies could be depleted as soon as June if this winter is as dry as the last, but 40% conservation could push that deadline to September.

The district has banned all new landscaping that requires drinking water supplies; is considering suspending all new water service hookups; and has offered multiple incentives and rebates for low-water use appliances and turf replacement. A water service suspension is estimated to save what equates to 0.1% of the district's water demand in all of 2020, according to staff, though some critics have questioned that.

Additionally, the district has issued more than 500 warning letters and two fines of $25 in recent weeks for violations, Horenstein said. Even so, some residents are still unaware of the one-day lawn watering limits, he said.

The agency has hoped to save about 6,850 acre-feet of water — about 9% of its total supply capacity and enough water to fill about 3,400 Olympic-sized swimming pools — between May and December under its current outdoor watering restrictions and 40% conservation mandate.

If the district enacts a 50% conservation mandate, as would occur with the Dec. 1 trigger, the district could save another 2,500 acre-feet of water. Under a scenario of another dry winter, the savings could give the district until mid-October 2022 rather than September to have an emergency water project in place, according to Paul Sellier, the district's operations director.

This action would resemble a move by Healdsburg, which has banned lawn watering since June and set a 74-gallon-per-day limit per person. Similar to Marin, Healdsburg had issues in getting its residents to meeting its conservation targets earlier this year.

After seeking voluntary conservation in February, the city mandated a 20% reduction and limited outdoor watering to three days in May, but conservation only reached around 15% by early June.

After the state curtailed Russian River water diversions, the city enacted mandatory 40% conservation in June that banned all lawn watering and gave each resident an allowance of 74 gallons per day. Within 10 days, the city began to meet its target, according to Healdsburg water conservation analyst Felicia Smith.

"Part of the logic was, we did this 20% and we weren't getting the numbers, and people really needed a guideline and a goal of what they are trying to accomplish," Smith said. "We had a tremendous amount of success between assigning a residential water budget and prohibiting irrigation."

There is debate on whether enacting similar rules would achieve the same effect in Marin. Ratepayers have asked the district to give them a daily target for their water use, with the district providing a more general goal of 66 gallons per person per day. The district is now developing more specific allotments that will be discussed in the coming weeks, Horenstein said.

Jack Gibson, a member of the district board, said he is prepared to review any additional conservation measures that staff thinks necessary to preserve supply. That said, he would want the "least Draconian" option available.

"We are basically reliant on people's responsibility and desire to do the right thing," Gibson said. "As I said, we're not in the policing business and just don't have those tools available. More water is the answer."

Fairfax resident Frank Egger, president of the North Coast Rivers Alliance environmental group, said the district should ban outdoor irrigation and assign mandatory water allowances as soon as possible.

"They need to cut it off," Egger said. "We're there."

Michael Hanemann, a University of California Berkeley professor of environmental and resource economics, said that rather than applying a fixed daily target for all customers, the district should take into account lot sizes and household sizes instead of setting a universal allowance.

"It would take a little time to get that set up, but now would be a good time to start doing that, even if it takes till Dec. 1," Hanemann said. Marin's restrictions are already "Draconian" compared to other districts in the Bay Area, Hanemann said, though he acknowledges the county is in a unique situation of relying primarily on local reservoirs for its supply. The seven reservoirs in the Mount Tamalpais watershed make up 75% of the district's supply, with the other 25% coming from Russian River water diversions that have been reduced since July. The district's goal should be to achieve the 40% conservation target as soon as possible rather than setting an even higher target of 50%, Hanemann said. One way to achieve this, he said, is using drought rates by which higher water users pay a premium price if they use more than a certain amount of water.

Horenstein said the district board is set to discuss drought rate options in the coming four to six weeks.

A major focus for the district this summer has been to convince residents to replace water-thirsty lawns with more drought-appropriate landscaping, Horenstein said. The district tripled its turf replacement rebate to incentivize more people to take this step, but has fallen well short of its monthly goals. Even if the district does achieve its yearlong target of replacing 2.4 million square feet of turf, the resulting water savings would be 177 acre-feet per year, or the equivalent of about 0.6% of the district's total water demand in 2020, according to staff. District board member Larry Russell has said these savings, while admirable, are "chump change" compared to what is needed.

"It just doesn't seem to me to be aggressive enough if we're going to make a difference," Russell said at a July 16 board discussion on the turf program.

Heather Cooley, director of research at the Oakland based Pacific Institute nonprofit research group, said the drought does provide an opportunity to incentivize programs such as turf replacement that reduce water demand for years to come.

"Letting lawns go brown now and, in the fall, putting in climate-appropriate plants is really sort of a win-win in that you're able to reduce your usage dramatically now and build in that long-term efficiency," Cooley said.

**"We had a tremendous amount of success between assigning a residential water budget and prohibiting irrigation."**

*— Felicia Smith, Healdsburg water conservation analyst*

Parched land meets the receding water line on July 22at Nicasio Reservoir, part of the Marin Municipal Water District storage system.

SHERRY LAVARS — MARIN INDEPENDENT JOURNAL

Environment & Energy

# Chlorine Shortage Spurs Unprecedented Requests for EPA Help (1)

By Bobby Magill

Aug. 16, 2021, 10:34 AM; Updated: Aug. 16, 2021, 11:42 AM

- Water systems in four states disrupted by shortage
- Some cities risked running out of chemicals in days

Local water systems are asking the EPA—for the first time in the Safe Drinking Water Act's history—for help obtaining chlorine-based water treatment chemicals amid a nationwide shortage.

Local water officials say they fear chlorine suppliers are prioritizing deliveries to swimming pools instead of local water utilities.

Fifteen drinking water and wastewater systems made the requests under Section 1441 of the drinking water law, according to a Federal Register notice published Friday.

The EPA has never before processed requests for help under that section of the law, which was enacted in 1974, said EPA spokeswoman Cathy Milbourn.

Water systems in California, Utah, New Mexico and New York turned to the EPA under Section 1441, which authorizes the Commerce Department to order suppliers to provide chemicals to water systems in need.

"Recent disruptions in the supply of critical water treatment chemicals, such as chlorine products and ferric chloride, have led to reduced allocations and projected shortfalls and delays in the delivery of these chemicals to some water and wastewater utilities," EPA spokesman Tim Carroll said.

## 'Quite Dicey'

Oceanside, Calif., was among the water systems requesting help after it stopped receiving regular deliveries of sodium hypochlorite—commonly known as bleach—in July, said Rosemarie Chora, division manager in the Oceanside water utilities department.

The city was down to about a five-day supply when it applied for assistance from the EPA, Chora said.

Deliveries to Oceanside's plants resumed without EPA help, "but it was quite dicey," Chora said.

"That is not a good place to be because, if you miss another load, we're talking about drinking water supply for 170,000 people," she said. "That's a lot of people to not have drinking water."

Of the 15 Section 1441 requests EPA received, the agency is seeking public comment on 10 of them in order to determine whether to issue a certification of need.

"If Certifications of Need are issued, the Department of Commerce will issue orders to the chemical suppliers requiring them to provide the designated product to the utility in amounts deemed necessary," Carroll said via email.

### 'On Our Own'

Chlorine has been in short supply for months, and prices have spiked in the wake of a fire at a Louisiana chemical plant a year ago and a pandemic-related boom in backyard swimming pool upgrades.

The Chlorine Institute, a trade group, didn't respond to a request for comment, but earlier this year it pointed to a report that the Louisiana chlorine plant would be offline until 2022.

Supply disruptions at water treatment plants are regional at the moment—mainly in the Southwest—and not "a national issue at this point," said Alan Roberson, executive director of the Association of State Drinking Water Administrators.

Many of the systems asking for help have gotten the water treatment chemicals they need without the EPA, but they wanted to avoid missed deliveries that could cause disruptions.

Oceanside usually keeps a 14-day supply of chemicals on hand, but the EPA often takes more than a month to respond to a Section 1441 request, Chora said. That potentially leaves water utilities "on our own" if they can't find a chemical supplier able to divert deliveries from swimming pools in time, she said.

### 'Send a Signal'

Poway, Calif., turned to the EPA after a delay in its chemical deliveries "to send a signal that water needed to be prioritized," city spokeswoman Rene Carmichael said.

"Chlorine needs to go to people who make safe drinking water," she said.

Other systems seeking EPA help received their deliveries after a struggle. The Western Municipal Water District in Riverside, Calif. got the supplies it needed, "but with difficulty," spokeswoman Sarah Macdonald said.

A sodium hypochlorite supplier couldn't fulfill its contract for the rest of 2021 with the Niagara Falls Water Board Wastewater Treatment Plant in Niagara Falls, N.Y. But a new supplier came through at a higher price, said Sean Costello, the water board's general counsel.

The board filed the Section 1441 request and issued an emergency bid request for the chemical at the same time. The EPA proceeded with a possible certificate of need for sodium hypochlorite out of "an abundance of caution" in case a new supplier couldn't be found, Costello said.

(Adds reporting throughout. )

To contact the reporter on this story: Bobby Magill at bmagill@bloombergindustry.com

To contact the editors responsible for this story: Chuck McCutcheon at cmccutcheon@bloombergindustry.com; Rebecca Baker at rbaker@bloombergindustry.com

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## Topics

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# Appeal filed on plan to dig well

## NORTH MARIN WATER DISTRICT

Fish advocates, utility headed to state board

Marin Independent Journal

**By Will Houston**

*whouston@marinij.com*

An environmental group is challenging a West Marin water supply project it says could harm endangered salmon in Lagunitas Creek.

Gordon Bennett, president and founder of the Inverness-based Save Our Seashore organization, filed an appeal with the California Coastal Commission asking it to require the North Marin Water District to maintain adequate creek flows after it constructs a proposed well near Point Reyes Station.

"Even a small reduction in water level over the two-mile stretch impacted by the proposed well could dry out acres of floodplain and isolate pools in which special species fish would be trapped," Bennett wrote in his appeal to the coast commission.

The water district's general manager, Drew McIntyre, said the well is vital to ensuring that the nearly 1,800 West Marin residents it serves have adequate drinking water in the face of worsening saltwater contamination at existing wells.

"We're focusing on the Gallagher wells as our source of low saline water and we're looking at that as being the most prudent solution," McIntyre said.

The district has already set up an emergency 3,500-gallon tank in Point Reyes Station in the event that salt levels in the wells reach high enough to become a health risk to residents on low-saline diets. The new well, originally slated for construction this summer, could have prevented the need for such an emergency option, district officials said.

Bennett's challenge comes after two unsuccessful appeals to the county earlier this year.

A coast commission hearing is tentatively scheduled for Oct. 12, McIntyre said, though commission staff say a specific date has not yet been set.

The North Marin Water District has three wells it uses to serve residents in Point Reyes Station, Olema, Inverness Park and the Paradise Ranch Estates. Two of the wells, located at a lowlying former Coast Guard property in Point Reyes Station, have been experiencing worsening saltwater contamination drought from sea-level rise and the removal of a dam on Lagunitas Creek in 1997, according to district officials.

The district will begin using an emergency water tank if salt levels reach 115 milligrams per liter. The highest level was 58 milligrams per liter on Aug. 1, according to McIntyre.

A third well completed in 2015 at the Gallagher Ranch outside Point Reyes Station is at a higher elevation and not affected by saltwater. That well only produced half of the expected 300 gallons per minute the district anticipated. The proposed new well, known as Gallagher Well No. 2, would allow the district to pump 300 gallons of water per minute and give residents a second source of well water unaffected by saltwater, McIntyre said.

The California Coastal Commission will review the appeal in two stages, the first a hearing to determine if Bennett's challenge raises a substantial issue with the California Coastal Act. If the commission finds an issue, it will take over permitting control from the county and determine whether the permit should still be issued.

If the project survives the appeal, McIntyre said, it would likely be completed by early spring or summer.

# *Work together as 'One Marin Water' to survive droughts*

**Marin Voice**

Marin Independent Journal

**By Jerry Meral**

Every water agency in Marin County faces severe shortages of water. If next year is like this one, more than one agency could literally run out of water.

We seem to have entered a new, unknown and very dangerous era of drought and heat induced by climate change. This is a deadly combination when it comes to water use and supply.

The Marin Municipal Water District has some reservoir storage, but not enough to survive back-to-back extremely dry years. MMWD and North Marin Water District have supplies from Sonoma County, but this year's drought is cutting deeply into those supplies and reducing their reliability.

During normal times, the West Marin community of Inverness has only enough water stored in tanks to serve its customers for about a week. The storage tanks are fed continuously by small streams, but streamflow is rapidly diminishing in this critically dry year.

As a whole, Marin needs a new strategy to survive long-term severe droughts. It is time for the water districts to work together collaboratively as "One Marin Water" to help the entire county survive the coming droughts in the near future. What we need now is a unified effort by all agencies to help Marin residents, businesses and agriculture get through this drought, and prepare for the next one.

In 1977, MMWD, East Bay Municipal Utility District and San Francisco officials worked out a water exchange to move water to Marin in an emergency pipeline built on the Richmond-San Rafael Bridge.

To prepare for a dry future, and to enable nearly all Marin water districts to survive a punishing drought, the water districts must work together to firm up their supplies and create drought resiliency.

One way to do this is to acquire a dry-year water supply from farmers in the Sacramento Valley, which is what MMWD leaders are now evaluating. The farmers already sell water in dry years to a wide variety of urban water agencies, and they

have more to sell, even in the driest of years. This would not seriously disrupt their agricultural economies, nor negatively impact the environment.

Moving water from lowervalue agricultural uses to highervalue urban uses in a critically dry year makes sense. EBMUD can divert this water from the Sacramento River. To get the water to nearly all Marin agencies, a permanent pipeline (to be used only in critically dry years) should be built underneath the bridge. Both MMWD and North Marin Water District could receive water under this plan.

Water districts serving Inverness, Muir Beach and Point Reyes would help pay for this project and receive water through a water exchange. MMWD would take some water from the pipeline (intended for and paid for by West Marin water agencies) and release the same volume of water from its reservoirs on Lagunitas Creek. This water would be diverted near Point Reyes by the North Marin Water District and distributed to Point Reyes and Inverness.

Flows necessary for salmon survival would be maintained or even enhanced. To get water to the Muir Beach community, water would have to be pumped into Fern Creek from Lake Lagunitas. Fortunately, Muir Beach uses very little water.

Is water conservation alone sufficient to get Marin through any conceivable drought? Perhaps, if very severe rationing were put into place and strictly enforced. But there is no need to put Marin County residents and businesses through such an economically impactful and trying multiyear situation.

Does bringing in new water mean new houses and growth? Marin County almost certainly will have to accommodate at least some new residents, and water districts are an awkward tool for regulating growth. They were created to supply water, not limit it. Marin County and its cities need to deal with this issue directly.

Land management agencies (including MMWD) have created One Tam to manage Mount Tamalpais lands. Nearly all fire districts are working together in the Marin Wildfire Prevention Authority. We need the water districts to do the same as One Marin Water. *Jerry Meral, of Inverness, is the former deputy director of the California Department of Water Resources and former executive director of the Planning and Conservation League.*

**There is no need to put Marin County residents and businesses through such an economically impactful and trying multiyear situation.**

# Letters

## Readying for more drought

This past water year has been extraordinarily dry, and back-to-back truly dry years are not unusual; 1976 and 1977 come to mind. If next year is as dry as this year, Inverness could run out of water in the late summer. While Point Reyes and Inverness Park may barely get by with their North Marin Water District supply from Lagunitas Creek, conflicts with water releases for fish survival are sure to arise. Low flows in Redwood Creek could also produce shortages in Muir Beach.

Like many others running short of water along the Northern California coast, we in coastal Marin are faced with two choices if we wish to augment our water supply: desalting and importing new supplies. Desalting works, but is extremely expensive, and finding a place for a desalter is always difficult and controversial. Since all of the outer coast around Inverness and Point Reyes is in parkland, a desalter would have to built on Tomales Bay. But discharge of brine from the desalter could harm the bay's delicate ecosystem.

What about imported water? Our neighbors to the east have none to spare. Marin Water is faced with the same choices: desalt or import. It presently seems to favor seeking new supplies from the Central Valley, requiring a pipeline under the Richmond-San Rafael Bridge.

How can West Marin benefit from this pipeline? Marin Water would buy water from farmers in the Sacramento Valley. The water would be released down the Sacramento River, picked up by the East Bay Municipal Utility District at its intake south of Sacramento, and moved through its system to a new bridge pipeline in Richmond. Fortunately, there is room in the East Bay water system, since the Richmond Chevron refinery switched from fresh to recycled water some time ago.

If the Inverness Public Utility District and North Marin Water District participate in the Sacramento Valley water purchase, the water we buy could be used by Marin Water in eastern and central Marin. In exchange, Marin Water would release extra water from Kent Lake into Lagunitas Creek, where it would be picked up and distributed by North Marin Water District to Inverness, Point Reyes Station, Inverness Park and Olema. There is an existing physical connection between the North Marin and IPUD systems.

This would keep more water in Lagunitas Creek, at least down to the North Marin Water District diversion, improving flows for fisheries. It would also be possible to pump water from Lake Lagunitas (a reservoir) into Fern Creek, sending supplemental water to Muir Beach. Unfortunately, there is no practical way to serve Stinson Beach or Bolinas with this concept.

West Marin has prided itself in water self-sufficiency. But a second truly severe drought year could run our streams nearly dry in late summer, making our area uninhabitable. Climate change is making everyone think outside the box. West Marin water districts should carefully consider this water exchange concept.

**Jerry Meral**
Inverness

# Amid worsening drought crisis, lawmakers push Biden to issue disaster declaration

Lawmakers urged the administration to deliver the necessary resources states required to battle the "historic dry conditions and devastating wildfires."

By Adam Barnes | Aug. 26, 2021

*Adam Barnes | Aug. 26, 2021*

THE HILL

Story at a glance

- Lawmakers are urging President Biden to issue a disaster declaration amid historic drought and wildfires.
- "There is little to no livestock feed available in the West, farmers are considering selling their livestock or land, and many species of wildlife are suffering from wildfires and lack of water," the lawmakers wrote.
- A bipartisan group of governors lobbied similar concerns to the federal government in a separate letter earlier in August.

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Lawmakers are urging President Biden to issue a disaster declaration as drought and wildfires ravage multiple western states.

A letter signed by Rep. Joe Neguse (D-Colo.) and Rep. Jared Huffman (D-Calif.) asked the administration and the Federal Emergency Management Agency (FEMA) to deliver the necessary resources states required to battle the "historic dry conditions and devastating wildfires."

"There is little to no livestock feed available in the West, farmers are considering selling their livestock or land, and many species of wildlife are suffering from wildfires and lack of water," the lawmakers wrote in a letter delivered Wednesday "This drought could have long-term impacts on the food supply, wildlife, and livelihoods of Americans in the West as these conditions persist.

A bipartisan group of governors lobbied similar concerns to the federal government in a separate letter earlier in August. The governors, including Jared Polis (D-Colo.), asked the president to declare a drought emergency. Without a declaration, the governors argued, it would "take years to recover from the effects of this devastating drought."

"We are eager to have additional conversations with you and your Administration about longer term strategies to make the west more resilient to drought, wildfires, and climate change. However, at this time we are requesting that you immediately declare a FEMA drought disaster in our states, allowing our agriculture communities to access funding beyond what is available through existing emergency programs," the letter reads.

The federal government recently declared a water shortage for the Colorado River and Lake Mead, and water from the Colorado River for Arizona, Nevada and parts of Mexico will be reduced starting in January, NBC News reported. Concurrently, 13 states are fighting approximately 100 fires, according to the outlet.

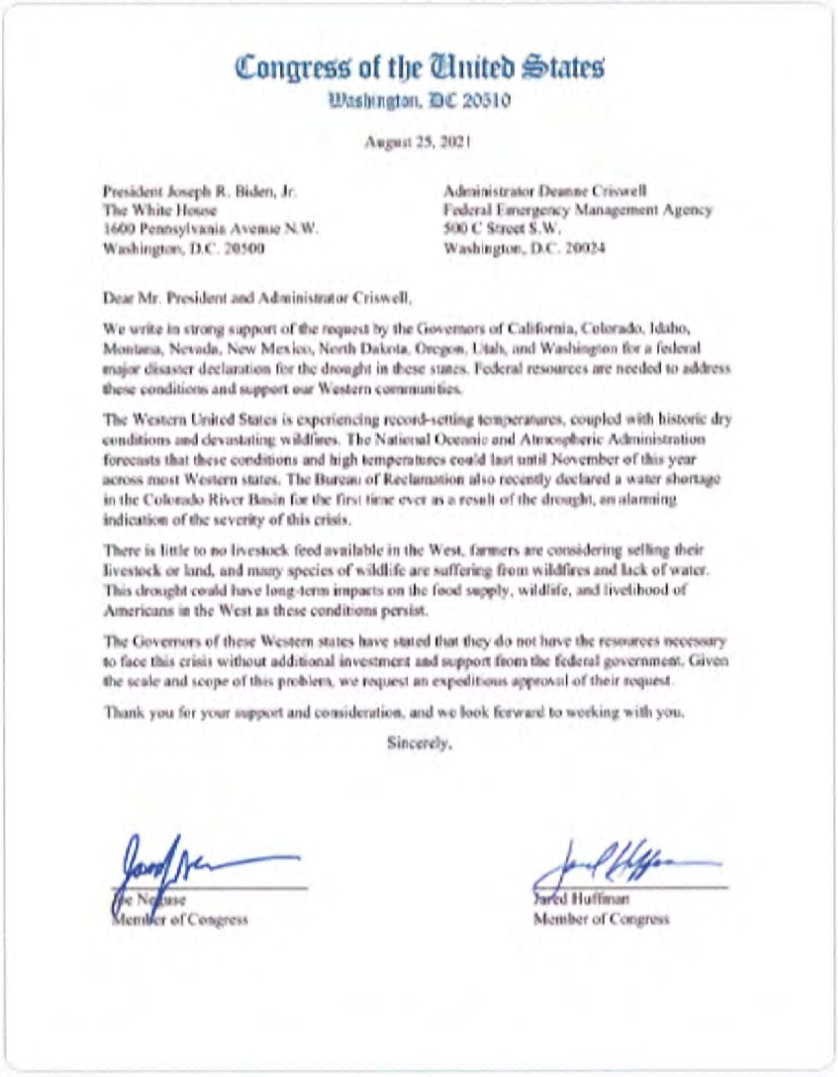
Firefighters in California alone are battling 12 active wildfires that have burned 1.62 million acres, according to CalFire.

The Biden administration declared an emergency in California on Tuesday to allocate "federal aid to supplement state, tribal, and local recovery efforts in the areas affected by wildfires."

**Rep. Joe Neguse**
@RepJoeNeguse

Drought conditions across Colorado have reached historic levels.

I'm leading my colleagues in urging the federal government to declare a drought disaster declaration and ensure robust federal resources to make the west more resilient to drought.



Congress of the United States
Washington, DC 20510

August 25, 2021

President Joseph R. Biden, Jr.
The White House
1600 Pennsylvania Avenue N.W.
Washington, D.C. 20500

Administrator Deanne Criswell
Federal Emergency Management Agency
500 C Street S.W.
Washington, D.C. 20024

Dear Mr. President and Administrator Criswell,

We write in strong support of the request by the Governors of California, Colorado, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, Utah, and Washington for a federal major disaster declaration for the drought in these states. Federal resources are needed to address these conditions and support our Western communities.

The Western United States is experiencing record-setting temperatures, coupled with historic dry conditions and devastating wildfires. The National Oceanic and Atmospheric Administration forecasts that these conditions and high temperatures could last until November of this year across most Western states. The Bureau of Reclamation also recently declared a water shortage in the Colorado River Basin for the first time ever as a result of the drought, an alarming indication of the severity of this crisis.

There is little to no livestock feed available in the West, farmers are considering selling their livestock or land, and many species of wildlife are suffering from wildfires and lack of water. This drought could have long-term impacts on the food supply, wildlife, and livelihood of Americans in the West as these conditions persist.

The Governors of these Western states have stated that they do not have the resources necessary to face this crisis without additional investment and support from the federal government. Given the scale and scope of this problem, we request an expeditious approval of their request.

Thank you for your support and consideration, and we look forward to working with you.

Sincerely,

Joe Neguse
Member of Congress

Jared Huffman
Member of Congress

1:05 PM · Aug 25, 2021

# Key votes near for Marin emergency water pipeline

## DROUGHT RESPONSE

Board to consider initial steps for using Richmond bridge

Marin Independent Journal

**By Will Houston**

whouston@marinij.com

The Marin Municipal Water District will consider the first of potentially several key approvals on Monday to build a $65 million pipeline across the Richmond-San Rafael Bridge to keep from running out of water as soon as next summer.

The roughly 6-mile pipeline between Richmond and Marin still faces numerous major hurdles such as permits, costs and finding the water to put in it. The project would be similar to what the district built during the drought of 1977 and would pump in Central Valley water purchased from agricultural areas.

"A s a district, we are very focused on conserving what we have, with the goal of trying to meet this challenge ahead of us through conservation yet recognizing that we may very well need supplemental water," said Ben Horenstein, the district's general manager. "This project is an interesting, yet very complex and costly, endeavor."

The district aims to have a pipeline completed in June, the earliest it predicts it could run out of reservoir supplies in the event of another dry winter.

Getting it over the finish line will require the cooperation and approval of a host of entities including local utilities, transportation agencies, cities, state agencies and the federal government — any one of which could cause delays.

"These are not agencies that are to be taken lightly," Paul Sellier, the district's operations director, told the district board this month.

The board is set to meet at 9:30 a.m. Monday to consider $2.2 million worth of contracts to study whether the project is feasible and to begin initial design work. The feasibility study is expected to be completed in early October, Horenstein said.

The district has released a schedule of other approvals, along with cost estimates, that would need to take place during the next six months:

• Sept. 21: authorize full design (about $7 million)

• Oct. 19: pre-purchase material (about $15 million)

• September to November: approve water purchase and transfer agreements (cost to be determined)

• February: award construction contract (about $40 million) All told, the district estimates the project would cost $60 million to $90 million, including the cost of the water purchases.

The shoreline is receding at Alpine Lake in Fairfax. Forecasts show the district could deplete its seven reservoirs as early as June if the upcoming winter is as dry as the previous one.

SHERRY LAVARS — MARIN INDEPENDENT JOURNAL, FILE

The Marin Municipal Water District is taking early steps to build a $65million water pipeline across the Richmond-San Rafael Bridge.

SHERRY LAVARS — MARIN INDEPENDENT JOURNAL, FILE

Forecasts show the district could deplete its seven reservoirs, which make up about 75% of its total water supply, as early as June if the upcoming winter is as dry as the previous one. The district's remaining water supply comes from Russian River imports from the Sonoma Water agency, which were reduced by 20% this summer and could be cut more as the drought worsens.

The district is relying on the 191,000 central and southern Marin residents it serves to ramp up conservation in order to buy it vital time to get the various approvals and funding in place for the pipeline, staff said.

"The timeline is tight and everything we can do will help us not only in the short term but in the long term as well," Sellier told the board.

So far, residents have fallen short of the 40% conservation levels the district has mandated since April. Achieving that would give the district until September to complete the pipeline, staff said. The highest conservation levels have reached 30% as of this month.

Monty Schmitt, a member of the district board, said the timeline is concerning, especially given the potential setbacks that could occur along the way.

"I know we're doing a lot on conservation, but I think conservation is probably one of the biggest things that we could ratchet up in the near term to give ourselves more time," Schmitt said during the board's meeting on Aug. 17.

Seiler said other challenges include the unknowns of working on an older bridge with limited capacity; the availability of construction materials; possible construction delays; and the potential need to secure access rights across Chevron refinery property in Richmond.

Aside from building the pipeline, the district also needs to find water rights holders such as agricultural producers that would be willing to sell their water allotments and fallow their fields. Four water districts — the Glenn-Colusa Irrigation District, the Placer County Water Agency, the San Juan Water District and the Yuba County Water Agency — have indicated potential interest, according to district staff.

To pay for the project, the district could enact a onetime rate increase of 3% to 4.5% as well as obtaining low-interest loans and grants. The pipeline would have ongoing annual costs of $2 million to $5 million, including debt payments and operational costs, Sellier said.

"I am confident that the district will do what we've done for over 100 years," Horenstein said. "That is to ensure we are providing our customers with safe and reliable water, for potable purposes and for firefighting. This is one piece of that assurance that, if we need it, we will have the water."

If the pipeline project falls through, the district has a backup option of renting temporary desalination plants to treat San Francisco Bay water, Horenstein said.

Staff determined that the two available plants would provide less than half of the 10 million to 15 million gallons of water per day that would be needed to sustain vital indoor uses — and would cost about $38 million. By contrast, the pipeline would be able to provide the required water so long as the district finds a willing seller.

Desalination would also require approvals from state and federal agencies as well as approval from ratepayers. In 2010, Marin voters approved a ballot measure written by the district that requires voter approval before the district can construct and fund a desalination plant. Should the district determine the pipeline project isn't feasible in October, the district would still have enough time to get the temporary desalination plants in place by next summer, Horenstein said.

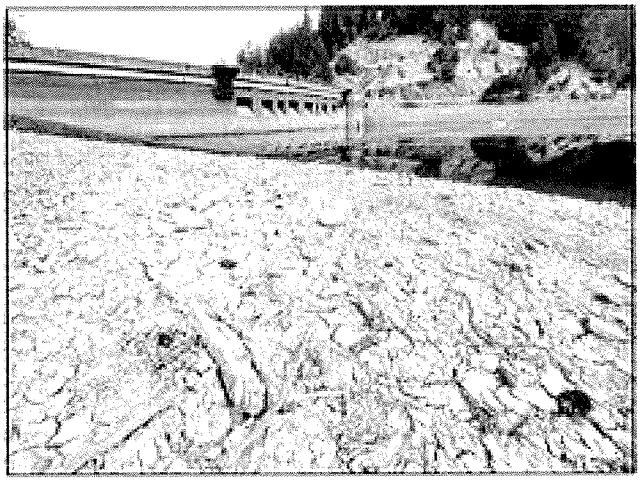
"We don't feel like at this point we're painting ourselves into the corner," Horenstein said. "What we're trying to do is focus our resources on where we think they may have the biggest return but ensuring that we do have backup options in place."

Additionally, the district is in negotiations with Sonoma Water about the potential to secure more water. The state has already ordered curtailments of most water

diversions from the Russian River and the agency's reservoirs at Lake Mendocino and Lake Sonoma are reaching historic low levels. The potential options with Sonoma Water will largely depend on how wet this upcoming winter will be, Horenstein said.

"So far it's difficult to see a path forward but we are in discussions and analysis," he said.

Should no new water source be secured and the upcoming winter is dry, residents could face severe water restrictions that could limit them to as little as 37 gallons per person per day, according to the district.



Dry, cracked dirt appears along the receding shoreline of Alpine Lake in Fairfax. Forecasts show the Marin Municipal Water District could deplete its seven reservoirs as early as June if the upcoming winter is as dry as the previous one.

SHERRY LAVARS — MARIN INDEPENDENT JOURNAL, FILE

**Recycled water available for residents to pick up**

**MARIN WATER DISTRICTS**

Hundreds of gallons offered at San Rafael, Novato sites

Marin Independent Journal

**By Will Houston**

whouston@marinij.com

Marin County residents can now pick up hundreds of gallons of free recycled water to use to water their plants and lawns or wash down driveways and sidewalks.

The Marin Municipal Water District has opened a recycled water filling station at Armory Drive across from the Civic Center in San Rafael where residents can take much as 300 gallons from 10 a.m. to 2 p.m. per day on Mondays, Wednesdays and Fridays.

The station's opening comes as the district faces the potential for critical water supply shortages next year. The district has limited outdoor sprinkler use to one day per week and drip irrigation to two days per week, but recycled water is exempt from the restrictions.

"It's a great alternative for people to take care of their landscaping without utilizing any of our drinking water supplies," district spokeswoman Emma Detwiler said of the new filling station.

The station is open to all Marin County residents at no charge. To access the station, residents must register with the district either onsite or online at marinwater.org/recycledwater. They will be issued an identification card. Residents must come with their own sealable containers that must have a minimum capacity of 10 gallons. There is no limit on the number of trips per day.

A gallon of water weighs 8 pounds, so residents are asked to check their vehicles' weight limits before filling their tanks and barrels to avoid unsafe situations.

Jim Mates, left, and Nole Studley with the Marin Municipal Water District help Jeff McCord of San Rafael fill a water tank with recycled water in at the Civic Center in San Rafael on Wednesday.

PHOTOS BY SHERRY LAVARS — MARIN INDEPENDENT JOURNAL


A sign reminds people not to drink recycled water at a temporary recycled water filling station at the Civic Center in San Rafael.

The recycled water is treated wastewater from the Las Gallinas Valley Sanitary District. The district can produce up to 5.4 million gallons of recycled water per day following upgrades that were completed earlier this year.

The North Marin Water District also has been offering recycled water to its Novato service area customers since July from 9 a.m. to 1 p.m. on Tuesdays, Thursdays and Saturdays on Wood Hollow Drive just north of the former Fireman's Fund campus.

Residents must register with the district at 999 Rush Creek Place in Novato and pay a $75 annual fee before they can use the refilling station. The district requires a sealable storage container with a minimum capacity of 35 gallons and allows for a maximum of 300 gallons per trip.

"We don't want people showing up with milk jugs," said David Ladd, the district's operations and maintenance program assistant. "You can make as many trips as you want to in a day."

Both refilling sites required the approval of state water quality regulators as recycled water can only be safely used for specific purposes.

Recommended uses for recycled water include irrigating plants, gardens and trees or washing outdoor furniture, driveways, paths and walls so long as runoff does not reach a storm drain.

Recycled water should not be used for drinking, cooking, refilling pools, bathing or hooking into household plumbing, where it has the potential to contaminate drinking water supplies.

By taking the recycled water, residents agree to allow Marin Municipal Water District officials to inspect to ensure they are properly storing and using the recycled water.

Users must also use the water right away through means such as gravity feed systems, and cannot store recycled water unless complying with specific mandates.

Mike Seybold of Nicasio said his household of four is dependent on well water to irrigate the garden, but the drought has made the well nearly inoperable. He has since made several trips to the Civic Center filling station and gravity feeds the water into a drip irrigation system.

"If it wasn't for this, my tomatoes and zucchini and all the veggies and fruit my wife propagates would just be out the window," he said.

Amy Ewing and Craig Thompson of San Rafael have returned multiple times to the Civic Center refilling site. Both use the treated water to irrigate their bonsai tree collection and their vegetable garden.

"A lot of people are leery about doing this on vegetable plants," Ewing said. "There is no problem. I am an internal medicine doctor. I feel totally confident using this on my vegetables."

# Marin County Drought Tracker

The Marin County Drought Tracker features water supply and water conservation numbers for Marin Municipal Water District, North Marin Water District and Sonoma Water.

**Marin Municipal Water District**

Total reservoir supply as of Aug. 26: 38.1%; 30,281 acre-feet Average water supply for Aug. 26: 75%; 59,699 acre-feet Water conservation Aug. 20 to Aug. 26*: 29% (1% decrease from prior week) MMWD's mandated conservation target: 40%

**North Marin Water District**

Stafford Lake water supply as of Aug. 26: 35%; 1,478 acre-feet Average water supply for Aug. 26 (since 1994): 50%; 2,153 acre-feet Note: NMWD fed about 1,100 acre-feet of Russian River water into Stafford Lake from February to April.

Novato water conservation as of Aug. 22**: 22% (3% decrease from prior week) Novato mandatory conservation target: 20% West Marin water conservation as of Aug. 22***: 40% (1% increase from prior week) West Marin mandatory conservation target: 25%

**Sonoma Water**

(supplies 25% of MMWD's supply and 75% of NMWD's supply) Lake Mendocino supply: 27.4%; 19,947 acre-feet Lake Sonoma supply: 47.6%; 116,110 acre-feet* conservation % is based on collective use compared to three-year average water use for this time period for 20182020 ** Novato conservation % compared to June 2020 water use *** West Marin conservation % compared to water use in June 2013, the last normal water year

Sources: MMWD, NMWD, Sonoma Water

# Monthly billing ditched as idea for saving water

**MMWD**

Marin Independent Journal

**By Will Houston**

*whouston@marinij.com*

The Marin Municipal Water District has decided against switching from bimonthly to monthly billing cycles as a way to promote water conservation.

At a meeting on Thursday, the district's board decided the nearly $1.2 million in added costs yearly that would result from the change would be better spent on a larger effort to install wireless meters for all of its customers.

"We have got to pick our priorities," board member Jack Gibson said during the board's finance committee hearing on Thursday.

The idea to switch to monthly billing is not new, having been proposed and rejected in 2017 because of the costs. The idea was resurrected again this year mainly as a way to give customers more frequent updates on their water use at a time when the district could run out of reservoir supplies by next summer. Most ratepayers see their water use every two months when they receive their bills.

The district has mandated that the 191,000 residents in its central and southern Marin service area collectively cut water use by 40%. The target has not been met since it was adopted four months ago, with peak conservation reaching 30% as of this month.

Of the district's nearly 60,800 customer accounts, only 5,000 have wireless water meters — formally known as advanced metering infrastructure or AMI — which provide immediate and historic water use data to the district and customers. The devices, also known as "smart" meters, were installed through 2020 as part of a $2.5 million grant-funded pilot project. The district is now looking to hire consultants this year to determine the best path forward to install the meters throughout its system in 2023.

The cost of installing wireless meters for the remaining connections is estimated at $20 million, which could be funded through loans or bonds, according to Charles McBride, the district finance director.

The project would be longer than the six months it would take to switch from bimonthly to monthly billing. But the billing switch also comes with its own costs and demands.

Water bills are calculated by meter readers who travel to thousands of homes and businesses and log water use using hand-held computers. Switching to monthly billing would essentially double the work, McBride said. To accommodate this, the district estimates it would need to hire four more meter readers along with two customer service representatives. The positions, along with a doubling of postage and invoicing expenses, would add about $1.2 million in yearly billing costs.

Additionally, the district would need to purchase four trucks at a cost of $120,000 and upgrade its billing system for another $300,000, according to McBride.

All five board members agreed that the funds should be focused on the wireless meter initiative.

"I think it's pretty clear that the money would be better spent trying to implement AMI," board member Larry Bragman said Thursday.

The Coalition of Sensible Taxpayers Marin, or COST, which has long been critical of the district's financial decisions, expressed support for the board's decision on Thursday.

"This one makes the most sense," Laura Effel, a member of the organization, told the board. "If you want an incentive for people to see what they're using and use that as a means of reducing their usage, the smart monitors are the way to go."

Meanwhile, the district has been offering discounted Flume water monitoring devices. Similar to smart meters, these devices can be attached to meters and provide real-time water use data to residents and the district, but are not used for billing.

Doug Kelly, president of COST, said he has been using a Flume device for the past several months. He said he supports the board's decision to use its funds on expanding its permanent wireless meter system.

"I think the decision was the moving forward on smart meters is also a good use of funds in order to help plug leaks and help stop water being

wasted," Kelly said. "We need to find different sources of water but one source of water is to end the waste of water whenever we can."

More information about the district's water conservation rebates is online at marinwater.org/rebates.

The receding water level at Alpine Lake, part of the Marin Municipal Water District reservoir system, leaves a ring of dry earth around the basin on April 21.

SHERRY LAVARS — MARIN INDEPENDENT JOURNAL

# *Charting a drought-resilient path forward in Marin*

**Marin Voice**

Marin Independent Journal

**By Cynthia Koehler and Monty Schmitt**

Lake Mead, which serves 20 million people, is at a shocking 40% of capacity, triggering the first ever shortage declaration.

As the Colorado River crisis demonstrates, drought is pervasive. Even the mightiest reservoirs do not offer a panacea in the face of climate change. As we grapple with persistent droughts, the path to a climate resilient water future in Marin County, as elsewhere, requires a diverse supply portfolio and culture change.

While we are members of the Marin Water Board of Directors, these views are not necessarily those of the entire board.

We must triple down on investing in technological innovation to reach a sustainable level of use. While we have made strong progress in recent years, our community is still consuming, on average, 124 gallons of water per person per day — far above our needs.

We support substantially enhancing rebate programs for smart controllers, leak detection devices, real-time meters and other water tech. A homeowner recently shared that the Flume meter provided by the district radically changed her household's water use. Vegetable gardens abound in Marin, and Rachio controllers enable gardeners to efficiently target irrigation.

We need to rethink our relationship to urban landscaping. We all want a beautiful Marin and landscaping is vital in combating climate change and heat islands. However, our new climate reality means that we must move quickly to replace non-essential turf with beautiful drought tolerant landscapes that use less water, provide habitat for wildlife and support the health of our watersheds. We propose a goal of replacing 50% of Marin lawns with low-water options in the next two years, and also to follow in Nevada's footsteps to move away from non-functional turf.

We advocate a "One Water" approach, meaning integrating drinking water, wastewater and stormwater systems to the maximum possible. The potential for repurposing water is large, from grey-water systems to rain cisterns to onsite reuse in new development. While it seems like a dream now, it will rain again and we should work with our planning and land-use agencies to increase capture and reuse of runoff,

including infiltrating water in the ground where it can feed our streams and trees, while providing supplies during drier times.

It is prudent to explore options for new supplies, including water transfers as supplemental supply in times of emergency — although, as a community, we must be clear-eyed about the price tag. In addition to the capital cost of connecting with

East Bay systems, buying water will likely become increasingly expensive as it becomes increasingly scarce. Nevertheless, obtaining a detailed understanding of our options is a prerequisite for any thoughtful community conversation.

We agree that it's time to move past the status quo, and there is nothing more status quo than building expensive centralized infrastructure to support unsustainably high levels of water consumption.

Some have been advocating for a local desalination facility. Assessments are that desalination cannot meet our immediate needs. A permanent facility would be very costly, creating significant financial pain for ratepayers, particularly low-income families and communities of color.

At current consumption levels, we would all be paying a steep price to support high water use, an inequitable situation for those who have been conserving. It is worth noting that if we had proceeded with desal 15 years ago, ratepayers would have been burdened by now with more than $200 million for water we have not needed for even one day. And unlike a water intertie, desalination needs to be run most of the time and cannot be held until required.

Desal and other options, such as regional groundwater storage, may be part of Marin's future. But our priority must be the projects and actions that most effectively safeguard supply and protect the health of our watersheds while keeping rates affordable for everyone, including the most vulnerable among us.

Marin County's climate resilience and water future will depend on our willingness to innovate and diversify. We can meet our water needs if we adapt to our new climate reality, bring our consumption to sustainable levels and implement cost-effective actions to improve reliability. Our vision is ambitious but feasible. Beyond that, it represents a sound path for ensuring that Marin's water remains safe, secure and available for generations to come.

*Cynthia Koehler and Monty Schmitt are Marin Municipal Water District directors.*

POINT REYES LIGHT

# Water districts move ration plans forward

By Ike Allen
08/25/2021

With creek levels dropping, Inverness moved to enact a mandatory water rationing plan on Wednesday. Rationing will be triggered if the Inverness Public Utility District's water storage system falls below 50 percent capacity over a seven-day running average.

"We're not at that critical point yet, but it could happen quickly," said Wade Holland, the district's customer services manager. "It could change in days."

The Stinson Beach County Water District adopted a similar mandatory rationing regime last Saturday. If the district's storage tanks fall below 70 percent capacity for a week, the district will enforce a limit of 125 gallons per meter per day, with exceptions for larger households.

"Hopefully we'll never hit that trigger point, but this is a pretty severe drought," Ed Schmidt, the general manager, told the Light.

IPUD is faced with the more dire water situation. Stream flows are low, and the district is managing a 700-gallon per day shortfall. Yet there is hope that demand will go down in coming weeks: Use typically dips after Labor Day. Kids are back in school and some weekend families are returning to their primary homes.

At the same time, IPUD is making repairs that could add more than 10,000 gallons of daily capacity. The district tested a never-used well in Third Valley last weekend, and is contracting with tank divers to fix a leak in the aging 60,000-gallon Tenney tank, which is set to be replaced soon. Despite these fixes, Mr. Holland recommended the district prepare to ration.

"On the one hand, we may be able to squeak by until winter without having to ration at all," he wrote in a staff report. "On the other hand, any number of factors could send us into an emergency downward spiral at any moment with little warning." An intense heatwave, a breakdown at the treatment plant, or a large fire could leave IPUD in the lurch.

If rationing is triggered, IPUD will allow 50 gallons per day per meter, plus 25 additional gallons per full-time resident.

IPUD first declared a water emergency in July; earlier this month, it went a step further, banning outdoor irrigation systems, the washing of cars and the filling of pools. Violators could be fined in the thousands or even face jail time.

The district also purchased 150 Flume meters to offer to customers at half price. The devices strap onto meters and provide a relatively cheap and easy way for households to monitor their own use; just 112 customers have bought

Flumes so far. Until the devices are more widespread, the district can't rely on them for enforcement of rationing; its operations team will determine compliance by looking at average daily use at the end of each two-month billing cycle.

Dakota Whitney, vice president of the board, raised a concern that weekenders could make a disproportionate dent in water use, as they could use hundreds of gallons in a weekend without exceeding their allowance. "Potentially that kind of use could drain our tanks," she said.

But other board members said the district is closely monitoring the town's 46 short-term rentals and hasn't identified any clear problems.

IPUD is also exploring the possibility of staking a claim to a fraction of the water Marin is planning to import across the Richmond-San Rafael Bridge. On Wednesday, the board approved a letter to Marin Water asking its board to consider allowing Inverness to access what amounts to just over three cups of the water per second by way of its emergency connection to North Marin Water District.

Inverness and Stinson Beach are among the first few communities in West Marin to turn to mandatory rationing amid an exceptional drought that is straining suppliers across California.

In Bolinas, authorities have had their finger on the trigger of mandatory rationing since February. A billboard posted by the Bolinas Community Public Utility District at the entrance to town keeps track of the community's seven-day average water use. Despite a few close calls, Bolinas has avoided reaching its trigger of 66,000 gallons a day.

Mr. Holland hopes the same will be true in Inverness. IPUD plans to keep customers up to date on storage levels with a sign installed downtown. If the town approaches the trigger, the district will send out emails and make phone calls. "Our goal is for people to comply," Mr. Holland said, "not for us to go out and zap people."

# Pipeline design funding allotted

**MMWD**

Marin Independent Journal

**By Will Houston**

*whouston@marinij.com*

The Marin Municipal Water District made its first major financial commitment to a proposed emergency water pipeline across the Richmond-San Rafael Bridge with the approval of $2.2 million in contracts on Monday.

The utility is proposing to build a 7- to 8-mile, $65 million pipeline between Richmond and Marin County to prevent it from running out of water as soon as next summer.

The pipeline would carry water purchased from Central Valley agricultural areas, similar to the pipeline the district built on the bridge during the drought of 1977.

On Monday, the district board voted 4-1 to approve three contracts that will begin initial designs of the pipeline and determine how feasible the pipeline actually is.

"We're not making an irrevocable commitment to the project," Cynthia Koehler, the board president, said at the meeting. "We are making a commitment to getting ourselves and the public informed."

The feasibility study is expected to be completed by early October. The board will consider more contracts and more expensive financial commitments in the coming six months, including whether to approve full design on Sept. 21 and purchase pipeline materials in mid-October. A $40 million construction contract is set to go before the board in February.

The district aims to have the pipeline in place in June, the earliest it forecasts it could deplete its local reservoir supplies if this coming winter is equally dry as the last. The district serves 191,000 residents in central and southern Marin.

About 75% of the district's supply comes from its seven local reservoirs in the Mount Tamalpais watershed, with the other 25% coming from Russian River water imports from Sonoma Water. Russian River imports have been cut by 20% and could be further reduced as the drought worsens.

The district estimates the pipeline could cost $60 million to $90 million depending on the price of the purchased water and could bring up to 15 million gallons of water into Marin per day. The water would be only for vital indoor uses needed to maintain the health and safety of residents, according to the district.

The three contracts approved on Monday include about $727,500 for the Sacramento-based Woodard and Curran engineering firm, which is providing overall management of the project and is in charge of securing water purchases; about $1.3 million for the Walnut Creek-based Carollo Engineers to design facilities such as pump stations that will be needed on either side of the Richmond-San Rafael Bridge; and about $154,500 to the Canada-based WSP Global Inc., which is studying how a pipeline could be built across the bridge.

The district had already hired the contractors to begin initial preparation work for the project. The vote on Monday extended the contracts.

Board member Larry Bragman cast the dissenting vote on Monday, saying the board should vote on the contracts at one of its regular bimonthly meetings rather than during a committee meeting. The meeting on Monday began at 9:30 a.m. was advertised as both a district operations committee meeting and a full board meeting. The board can vote on items at these meetings, which some critics say violates the spirit of the state's open meeting laws.

Building the pipeline and getting water from the Sacramento Valley to Marin would require cooperation and approvals from a variety of agencies, including local cities, Caltrans, water districts, federal agencies and potential permission from Chevron to access its refinery in Richmond for pipeline construction.

In addition to these hurdles, the district also faces uncertainty with construction timelines and whether enough construction materials will be available to get the project built before July. The district might consider prepurchasing $20 million in pipe and other materials on Oct. 19.

"It's already a very challenging timeline to meet July," Paul Sellier, the district's operations director, told the board.

The district states that conservation will provide staff more time to get a pipeline in place. The district's 40% conservation mandate would give it until September, but so far residents have only reached peak conservation of 30% as of this month. The district plans to discuss other conservation measures at its Sept. 7 meeting.

Aside from the contracts, staff also provided some updates on the pipeline project to the board on Monday.

As to where the pipeline will be located on the Richmond- San Rafael Bridge, district staff said that two options are the most favorable: the underside of the top deck or on top of the top deck where the pedestrian and bicycle path is.

Sellier said the underside of the bottom deck is no longer being considered given challenges around construction, maintenance and permitting. Additionally, the location would likely require a review by the U.S. Coast Guard because it would reduce clearance space under the bridge, Sellier said.

Water purchasing discussions are ongoing, Sellier said, with the Glenn-Colusa Water District and the Yuba Water Agency being seen as the most favorable candidates. Water purchase proposals are set to come to the board between September and November.

The Inverness Public Utility District in West Marin has also expressed interest in buying some of the pipeline water to address its own water shortage, Sellier said.

In addition to the pipeline, the district has considered renting temporary desalination plants as a backup option. The two desalination plants available on the market would cost about $38 million and only produce less than 4 million gallons per day, or less than half of the daily water needed for vital indoor uses, staff said.

The plants would likely take nine months to have in place, assuming the district can secure state and federal permits and approvals in time, and would require voter approval by a majority of district ratepayers.

The district is also in communication with Sonoma Water about the potential to purchase more water, but the agency is facing its own critical shortages. Another option being examined is the potential to secure water through freight trains, trucks and barges, Sellier said, though no further information was provided on Monday.

If the winter is dry and no new water source secured, ratepayers could face severe water use restrictions that could limit them to as little as 37 gallons per person per day, according to the district.

# Endangered fish a drought victim?

## LAGUNITAS CREEK DAM RELEASES

MMWD seeks to reduce water from coho for reservoir supply

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In an effort to preserve more water as its reservoirs evaporate, the Marin Municipal Water District is requesting emergency state approval to take water away from endangered fish in one of the last coho salmon strongholds in the Bay Area.

District officials said the request to reduce dam water releases into Lagunitas Creek this winter is not taken lightly but is a necessary precaution amid a historic drought that threatens the water supply for 191,000 residents in central and southern Marin.

"We're talking about listed species, populations that are crashing and threatened with extinction," said Monty Schmitt, a member of the utility's board, said at its meeting on Monday. "And so, we really shouldn't be looking at that in any other way than something that we are not contributing to extinction but we are trying to make it through this year — both fish and people."

But some environmentalists say to them the choice is clear: Preserve endangered fish that have lived in Lagunitas Creek for thousands of years, or preserve lawns.

Local environmental leaders said they understand the district's serious situation. But they note that the district and its residents are failing to meet their goal of cutting water use by 40% and haven't begun to exhaust all the other water-saving options that are available.

"What we put in jeopardy is that whole central coast coho population," said Preston Brown, conservation manager for the Olema based Salmon Protection and Watershed Network. "Yes, there are other watersheds with these fish, but the Lagunitas population itself is very distinct and represents the southernmost range of coho in the western United States. It's a critical anchor for coho salmon, especially on the central coast."

As of last week, the water district's residents have cut water use by 30%. The district still allows landscape sprinkler irrigation one day per week, allows residents to refill pools and has not put in place water allotments for homes and businesses, as some areas, including parts of San Jose, have done.

"Rather than making plans to reduce the flow into the creek, we would like to see them actually meet their conservation targets first," said Morgan Patton, executive director of the Environmental Action Committee of West Marin.

The district's seven reservoirs in the Mount Tamalpais watershed are about 37% full. District staff say that they could run dry by as soon as June if the area receives as little rainfall as last year, which was the county's second-driest year in 143 years of records.

In its request to the state Water Resources Control Board, the district is proposing to temporarily reduce its normal water releases from its Kent Lake reservoir into Lagunitas Creek between Nov. 1 and April 30 by between 12% to as much as 70% during certain periods.

District surveyors would monitor the creek for returning spawners and would ramp up dam water releases after storm surges that typically trigger the fish to migrate further upstream toward their spawning grounds. The district would also make weekly reports to federal and state agencies.

The district has been required by the state since 1995 to release water into the creek to ensure the survival of endangered coho salmon. Coho salmon once returned to Marin creeks by the tens of thousands prior to the arrival of European settlers. The dams constructed in the past century to create the district's network of reservoirs also blocked off significant tracts of habitat for returning spawners and for young rearing salmon, causing their populations to dwindle to the brink of extinction in the following decades.

The vestiges of the historic salmon runs on Lagunitas Creek now only number in the hundreds in most years but represent the largest population of coho salmon between Monterey Bay and the Mendocino-Sonoma County line.

In cases of drought emergencies, the state does allow agencies to temporarily reduce these water releases to preserve supplies if they can ensure it will still protect endangered fish species.

Under this latest proposal, MMWD estimates it would save 1,800 to 2,500 acre-feet of water during those six months, or an average of 300 to 417 acre-feet per month,

depending on how much dam water is released. Those monthly savings are equivalent to about 14% to 20% of the district's potable water demand in July of 2,101 acre-feet, the most recent month of water use data available. An acre-foot is the amount of water that could cover an acre to a depth of 1 foot.

The National Marine Fisheries Service, commenting on the district's study of these flow releases, raised concern about the potential to reduce suitable spawning habitat on the creek by about 30% and thereby reduce the chances that salmon nests will survive.

Before voting on Monday to submit the emergency request, district board members said they will be working with wildlife management agencies to ensure creek conditions are adequate.

"I have confidence that the continuing monitoring will be done diligently," board member Larry Bragman said on Monday. "And maybe the program, if we communicate it correctly to our customers, will inspire them to increase conservation because it certainly illustrates the connection between consumption and the environment."

The board voted 3-0-1 to approve submitting the request. Larry Russell was absent, and Cynthia Koehler abstained. Koehler, the board president, said she did not think she had enough information to support the request.