



**NORTH MARIN WATER DISTRICT**  
**AGENDA - REGULAR MEETING**  
September 15, 2020 – 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/8349174264>

Password: 466521

**SIGN IN TO ZOOM:**

Meeting ID: 8349174264

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: 834 917 4264#

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.		<b>CALL TO ORDER</b>
	1.	<b>APPROVE MINUTES FROM REGULAR MEETING</b> , September 1, 2020
	2.	<b>GENERAL MANAGER'S REPORT</b>
	3.	<b>OPEN TIME: (Please observe a three-minute time limit)</b>  This section of the agenda is provided so that the public may express comments on any issues not listed on the agenda that are of interest to the public and within the jurisdiction of the North Marin Water District. When comments are made about matters not on the agenda, Board members can ask questions for clarification, respond to statements or questions from members of the public, refer a matter to staff, or direct staff to place a matter of business on a future agenda. The public may also express comments on agenda items at the time of Board consideration.
	4.	<b>STAFF/DIRECTORS REPORTS</b>
	5.	<b>MONTHLY PROGRESS REPORT</b>
		<b>ACTION CALENDAR</b>
	6.	<b>Approve:</b> Water Use and Leak Detection Device Pilot Program for the West Marin Service Area
	7.	<b>Approve:</b> Consulting Agreement for Preparation of the 2020 Urban Water Management Plan Update
	8.	<b>Approve:</b> Proposal for West Marin Water Rate Study
	9.	<b>Approve:</b> Renew Declaration of Local Emergency Related to COVID-19 Pandemic
		<b>INFORMATION ITEMS</b>
	10.	Fourth Quarter FY 19/20 - Water Quality Report
	11.	Fourth Quarter FY 19/20 – Operations/Maintenance 4 <sup>th</sup> Quarter Report
	12.	NBWA Meeting – September 11, 2020
	13.	<b>MISCELLANEOUS</b> Disbursements – Dated September 3, 2020 Disbursements – Dated September 10, 2020 ACWA – Planning Tool for Local Water Managers Released for Public Comment AMWA urges prioritization of water workers in vaccine framework  <u>News Articles:</u> Marin IJ – Recent blackouts show state has power supply problem Marin IJ – West Marin crews have fire 57% contained – PONT REYES Marin IJ – Editorial – Novato trash plan could cost residents Novato Advance – Meet Marin's oldest active schoolhouse Point Reyes Light – Woodward Fire lays its smoke over West Marin Point Reyes Light – West Marin's Past – The 1995 Vision Fire
7:30 p.m.	14.	<b>ADJOURNMENT</b>

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DRAFT  
NORTH MARIN WATER DISTRICT  
MINUTES OF REGULAR MEETING  
OF THE BOARD OF DIRECTORS  
September 1, 2020

**CALL TO ORDER**

President Joly 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 Joly called the regular 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 Joly 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 Joly 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 Joly noted that due to the virtual nature of the meeting he will conduct a roll call from the Directors. A roll call was done, all were in remote attendance therefore establishing a quorum. Participating remotely were Directors Jack Baker, Rick Fraites, James Grossi, Michael Joly and Stephen Petterle.

President Joly 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.

Mr. McIntyre performed a roll call of staff, participating remotely were Drew McIntyre (General Manager), Terrie Kehoe (District Secretary), Julie Blue (Auditor-Controller), Tony Arendell (Construction/Maintenance Superintendent), Robert Clark (Operations/Maintenance Superintendent), Ryan Grisso (Water Conservation Coordinator), Carmela Chandrasekera (Acting Senior Engineer) and Monica Juarez (Cashier/Receptionist).

President Joly announced for those joining the virtual meeting from the public to identify themselves, West Marin customers Rich Schiller and Judy Spelman were in remote attendance.

**MINUTES**

On motion of Director Petterle, seconded by Director Baker the Board approved the minutes from the August 18, 2020 regular meeting by the following vote:

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

NOES: None

36 ABSTAIN: None

37 ABSENT: None

38 On motion of Director Petterle, seconded by Director Baker the Board approved the  
39 minutes from the August 25, 2020 special meeting by the following vote:

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

41 NOES: None

42 ABSTAIN: None

43 ABSENT: None

44 **GENERAL MANAGER'S REPORT**

45 Air Quality due to Fire Smoke and Haze

46 Mr. McIntyre stated the air quality due to the West Marin Woodward fire has been  
47 particularly bad in Novato over the last couple of days with an Air Quality Index as high as 450.  
48 He stated our HR/Safety Manager, Joanne Fabia has been doing a great job keeping staff  
49 informed on a daily basis on actions necessary to protect staff including distribution of N95 masks.

50 Emergency Water Restriction Notice due to Fires

51 Mr. McIntyre noted that under miscellaneous Sonoma County Water Agency (SCWA)  
52 removed their call for emergency water conservation due to good progress on the Walbridge fire;  
53 which was last reported near the SCWA production wells on September 27<sup>th</sup>. He added that our  
54 website and social media messaging continues to call for emergency water conservation in West  
55 Marin due to the Woodward fire. Mr. McIntyre added Mr. Arendell and Mr. Clark will have more  
56 to report on the West Marin Woodward fire later on in the meeting.

57 West Marin Dry Year Conditions and Salinity Updates

58 Mr. McIntyre announced that later on in this agenda Mr. Grisso will be talking about our  
59 summer West Marin waterline newsletter that is in production to further our customer outreach  
60 efforts regarding dry year conditions in West Marin. He added at a future meeting Water Quality  
61 Superintendent Pablo Ramudo will be providing a more detailed report as part of his year-end  
62 West Marin Water Quality Report.

63 PRE Tank 4A Update

64 Mr. McIntyre reported that the second of three wall segments for the PRE Tank 4A Project  
65 is now scheduled for September 3<sup>rd</sup>; however, this date is tentative.

66 Chief Engineer/Assistant General Manager Recruitment

Mr. McIntyre updated the Board on the current Chief Engineer/Assistant General Manager recruitment. He announced our top candidate has signed the offer letter and we are moving forward to filling the vacancy on October 12<sup>th</sup>.

Director Baker noted an article he saw in the Press Democrat about the Walbridge Fire impacts to SCWA water supply. He asked Mr. McIntyre if he expects a response from the agency that will explain that it is not as dire as the article suggested. Mr. McIntyre responded that he hasn't heard from the agency. Director Baker stated that some kind of a response is warranted.

Director Joly asked if there was any damage to District assets from the Woodward fire. Mr. McIntyre responded that we have not had any facilities damaged by fire to-date. He added even though we have seen no impact on our facilities, the fire is only an eighth of a mile away, so we are watching it very closely. Director Joly asked if any staff or their families were impacted by the fire. Mr. McIntyre responded no. Director Joly replied that this was great news and he wished all the customers in West Marin the best under these trying circumstances.

#### **OPEN TIME**

President Joly asked if anyone from the public wished to bring up an item not on the agenda and there was no response.

#### **STAFF/DIRECTORS REPORTS**

Ms. Kehoe announced to the Board that if anyone would like Zoom installed on their iPad to let her know and it can be arranged to bring it into the office and have it installed.

Mr. Arendell reported PG&E was doing work around town to remove all interties between their transmission and distribution systems. He stated there is a conflict with a twelve-inch water main that was installed above an older PG&E gas line. He explained in order to do the required gas pipeline work, our 12-inch water main will have to be shut down for three weeks. Mr. Arendell added that in order to keep customers in service the District will have to install a new 12-inch water isolation valve. He added PG&E will excavate our water main and our crew will install the valve and then flush and sample. Director Baker stated the work was initiated by PG&E and asked if they will be digging our trench. Mr. Arendell confirmed, adding they will excavate the pipe, perform traffic control and backfill; and we will do the work on our system. Director Baker asked if any of our staff or an associate will test and verify the trench compaction. Mr. Arendell replied that the City of Novato inspector will be watching them closely and compaction testing will be required.

Mr. Arendell announced that as of September 1<sup>st</sup> the Woodward Fire is 25% contained. He stated the structural team assessment crew started their inspections in Silver Hills, Bear Valley, Olema and Bolinas. He added the weather is getting better with the return of the marine

layer; however, this weekend it is supposed to heat up again so they are hoping the fire will be largely contained before then. Mr. Arendell also advised that they expect the smoke will stick around for the next two to three weeks, but it will not be as thick. Director Joly asked if it will be the same incredible density as last week. Director Grossi added that it is worse this evening than it has been all day and it is due to the shift in the wind. Mr. Arendell replied the Air Quality Index was just under 500 and tends to drop as the day progresses. Mr. McIntyre asked Mr. Arendell to explain the source of the water that was used to fight the Woodward fire. Mr. Arendell responded that Marin County Fire had 13,000 feet of hose down the north west side of the fire and was getting District water from a hydrant by Commodore Webster. Director Joly noted that when NMWD provides water for firefighting there is no cost to the Fire agency and a great support of a public need. Mr. McIntyre added that the Marin County Fire Chief, Jason Weber has been doing a good job getting the message out to the community not to turn on their sprinklers as a fire prevention measure. He explained some folks turned on their sprinklers when they evacuated, Chief Weber asked residents not to do this so there is enough water in NMWD and IPUD systems to fight the fire. Mr. Clark stated as the result of the structural assessments we received some feedback that we need to do more work around the facilities to help isolate them from future fires. He stated that this a huge undertaking and he and Mr. Arendell have been out there daily to get an understanding of what they are looking for. Mr. Clark reported our fire prevention plan needs to improve to be sure our facilities are in good shape. He added per the air quality reports the air should improve in the next couple of hours. Mr. Clark said he and Ms. Fabia talked to the field staff and crews so they know what environment they will be working in. He added staff and crews are doing a great job.

Ms. Blue reported that she and Mr. Clark have been working on obtaining a contract with a local property manager regarding the rental at 25 Giacomini. In the past staff managed the property, however with current laws and issues that come up we need someone with real estate experience. She stated the property manager will collect the rent and work with the tenant for minor repairs for a 7% monthly fee.

Ms. Blue alerted the Board of a recycled water irrigation meter error with Marin Country Club (MCC). Their six-inch meter is the only meter of that size in the AMI billing system and an error in conversion caused MCC to be underbilled. Ms. Blue added they were charged one tenth of the 30 million gallons they used. She stated she contacted the MCC General Manager and he agrees they used the water and they are currently discussing a payment plan for the money they owe. Ms. Blue noted District staff were not aware of the conversion issue associated with the large AMI meters and she will put measures in place so this does not happen in the future.

135 Director Joly asked what was the period of time they used the 30 million gallons. Ms. Blue  
136 responded two years and eight months. Director Joly asked staff to give the Board more comfort  
137 on how something this extraordinary occurred. Ms. Blue explained this was the only six-inch  
138 meter in the system and the only case where a factor should have been added when entering it  
139 into the billing system. In addition, there was no history to compare this service to since in the  
140 past MCC used ponds as their primary source of water and only a single one-inch potable service  
141 for supplemental golf course irrigation. She added that when MCC switched over to recycled  
142 water we were unable to compare the current usage to what was used in the past since it was a  
143 new account with new demands. Director Petterle asked what the dollar amount was. Ms. Blue  
144 replied \$190,000. Director Baker asked if this was a math error or a change of meters that caused  
145 the error. Ms. Blue stated that when the AMI meter was installed the conversion factor was not  
146 factored in since it was not needed for the other meters, and since this was the only meter of this  
147 size we were unaware that we needed to input this additional calculation. Director Baker said  
148 when working with big numbers someone does the math and then someone else checks it, he  
149 asked what the protocol was in this situation. Ms. Blue stated that this will be something the billing  
150 department will look at in the future; however, this was hard to catch, because it happened over  
151 a long period of time and there was no history to compare to on the new service. Director Fraites  
152 stated he is finding it hard to understand, this customer used that much water in the past, and if  
153 the future usage dropped by a factor of ten why wasn't it caught. Mr. Clark explained there was  
154 no historical information in our AMI system to flag use. Now that the service is on AMI we will be  
155 able to track usage. Director Petterle clarified that there was no previous historical recycled water  
156 use; agreeing with staff that it would be hard to notice. He stated he is satisfied with staff's  
157 explanation. Mr. McIntyre added that MCC has a significant onsite monitoring system, and the  
158 greens keeper was able to go through their internal system and confirm the usage. Mr. McIntyre  
159 reiterated we had no recycled water use history and no immediate way to flag an unusual trend  
160 because it was a new account and that staff are working on how to prevent this in the future. The  
161 question is not if they used the water, it is now when we will get paid for the use. Director Joly  
162 stated Ms. Blue and Mr. McIntyre stated this is the only six-inch recycled water service in the  
163 system and it is something we can learn from. Ms. Blue replied that we will put measures in place  
164 to track use better, and now that we have AMI with more data we can figure out the best way to  
165 track this moving forward. Director Joly thanked Ms. Blue for bringing this to the Board, stating it  
166 is not easy being the point person of a mistake and it is good she brought it to the Board's  
167 attention.

168 Ms. Blue reminded the Board the rate increase will be in effect on October 1<sup>st</sup> and she is



working with the Billing Department to be sure the rate increases are put in place on time and accurately. She added that this year it will be a bit different, because of the change of structure and tiers, it will take more effort and planning.

Director Joly reported that he had a meeting with Jeff Palmer our independent auditor that was arranged by Ms. Blue. Mr. Palmer went through our protocol for the Board and at staff level in reference to fraud and the possibility of fraud. He said he found it very informative and asked typical questions, and is assured that correct protocols are in place to prevent fraud at the District. Director Joly wanted to thank Ms. Blue and Mr. Palmer and alert the Board about the discussion.

Mr. Clark announced to the Board that he and Pablo Ramudo will be doing a Stafford Lake watershed inspection with our watershed residents for the required sanitary survey. He added that they will be inspecting the horse ranch, golf course and other residents surrounding the lake.

#### **CONSENT CALENDAR**

On the motion of Director Grossi, and seconded by Director Petterle the Board approved the following item on the consent calendar by the following vote:

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

NOES: None

ABSTAIN: None

ABSENT: None

#### **WATER AGREEMENT – McPHAIL’S PHASE 2B WATER FACILITIES, 5400 HANNA RANCH RD., APN: 153-220-16 & 19**

The Board approved the water agreement for McPhail's Phase 2B Water Facilities. The project site is located at 5400 Hanna Ranch Road, APN: 153-220-16 & 19, Novato and consists of three office buildings (A, B and C) in two phases on a 4.91-acre parcel. This part of the project will be to construct the balance of the pipeline for Phase 2 (Phase 2B), that will include all work except installing fire services and the water services for buildings B and C.

#### **ACTION ITEMS**

#### **RESOLUTION OF APPRECIATION FOR CARMELA CHANDRASEKERA**

Mr. McIntyre apprised the Board that Ms. Chandrasekera began employment on September 1, 2004 as an Assistant Engineer and was promoted to an Associate Engineer in 2008. Her excellent engineering skills and many projects were recognized along with her role in the expansion of recycled water in the North and Central Service Areas. He announced Carmela will be retiring on September 30, 2020 after 16 years of dedicated service. Additionally, Mr. McIntyre stated Ms. Chandrasekera has a strong humanitarian spirit and never lost sight to give back to those in need and volunteered to help many local and international causes. He also

shared that we are fortunate that Ms. Chandrasekera will continue to reside in Novato so we will be able to still see her around town. Mr. McIntyre added that Ms. Chandrasekera will be greatly missed by those she worked with.

Mr. Clark shared that it was an outstanding opportunity for him to work with Ms. Chandrasekera, and hopes she enjoys her retirement since she certainly earned it. Director Petterle stated he retired five months ago and he was a little scared to take that step; but he is enjoying all the things he missed and hopes she is as happy in retirement as he is. Director Grossi said he was retired and now working again, and told Ms. Chandrasekera that if she ever gets bored with retirement, with her background, there are many places she could find employment. Director Fraites stated most of the Board is retired and he highly recommends retirement, and has found it to be a noble profession. He commended Ms. Chandrasekera for being a wonderful employee who always had a smile on her face and expressed his good wishes for an enjoyable retirement. Director Baker stated he often runs into Ms. Chandrasekera in the grocery store and she is always so cheery and will be missed at the District. Director Joly stated her years at NMWD were truly amazing and she has much to be proud of and thanked her for enhancing the District. Ms. Chandrasekera replied that she wanted to take this opportunity to say how grateful she was to have worked for the District and serve the community. She stated she and her family would not be where they are today if it were not for the District. Ms. Chandrasekera also thanked Mr. McIntyre for hiring her and commended him for being a good manager and thanked all her co-workers for the opportunity to work with them over the years.

On the motion of Director Petterle, and seconded by Director Fraites the Board approved the Resolution of Appreciation to Carmela Chandrasekera by the following vote:

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

NOES: None

ABSTAIN: None

ABSENT: None

#### **RENEW DECLARATION OF LOCAL EMERGENCY RELATED TO COVID-19 PANDEMIC**

Mr. McIntyre requested the Board find that there still exists a need to continue the State of Emergency due to the COVID-19 pandemic as reflected by Resolution No. 20-07.

Mr. McIntyre reminded the Board that staff has been operating under partial Emergency Operations Center (EOC) activation since March 18<sup>th</sup> and summarized various key measures implemented by the District's emergency management team since that time. He stated maximum workplace spacing continues and walk in services remain suspended, adding we will do what is necessary for the safety of our employees and the public. He apprised the Board that no staff are

currently impacted by the virus.

Mr. McIntyre updated the Board on current coronavirus conditions in Marin County. Mr. McIntyre reported Marin County's COVID case rate has dropped significantly in August representing a sign of progress after months of worrisome trends. He stated the one-week average rate for new infections fell to 6 per 100,000 residents and the one-week average positivity rate has fallen to 2.5% down from 5% at the end of July.

Mr. McIntyre provided a cost summary for COVID noting related costs are estimated at ~\$61,000 and the current water bill delinquency percentage has increased to around 1.8% when compared to the 1.6% delinquency rate in spring of this year.

On the motion of Director Fraites, and seconded by Director Baker the Board approved renewal of the Declaration of Local Emergency Related to COVID-19 Pandemic by the following vote:

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

NOES: None

ABSTAIN: None

ABSENT: None

**NOTICE OF COMPLETION FOR THE GALLAGHER RANCH STREAMBANK STABILIZATION PROJECT (DIXON MARINE SERVICES, INC.)**

Mr. McIntyre presented the Notice of Completion for the Gallagher Ranch Streambank Stabilization Project. He reported the contractor Dixon Marine Services, Inc. (DMS) completed the project on July 27, 2020 and has fulfilled their obligations under the contract. Mr. McIntyre stated corrections of all work deficiencies and punch list items have been completed and all work performed has been inspected by District staff and the design consultant (WRA). Mr. McIntyre added the final payment for monies held in retention in the amount of \$20,435.66 will be processed for release on or after October 8, 2020, subject to absence of any additional claims filed during the 30-day notice period. Mr. McIntyre stated the total project cost of \$692,345 was approximately 5% higher than the budgeted amount of \$656,549 reported to the Board in April, and NMWD's estimated local share was \$280,948. Director Grossi stated the memo did a good job breaking down all the costs.

On the motion of Director Grossi, and seconded by Director Baker the Board authorized the General Manager to execute and file a Notice of Completion for the Gallagher Ranch Streambank Stabilization project by the following vote:

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

NOES: None

ABSTAIN: None

ABSENT: None

**APPROVE TEXT FOR SUMMER 2020 WEST MARIN “WATERLINE”, VOLUME 18**

Mr. Grisso introduced the draft text and design for the Summer 2020 West Marin “Waterline”, Volume 18. This issue will focus on the salinity intrusion in the West Marin service area, the water shortage emergency and water conservation programs available to customers. Also included, will be a customer interest list for a pilot program for private line water use monitoring and leak detection devices.

Director Grossi asked what the status was on the salinity intrusion. He stated he talked to Mr. Ramudo about the salinity levels last week, but would like an update on that. Mr. McIntyre replied he spoke with Mr. Ramudo and this week’s sample was collected today, and the results will not be known until tomorrow. Mr. McIntyre added that Mr. Ramudo intends to provide a more detailed report at the next Board meeting. Director Joly thanked Mr. Grisso for all his work on the Waterline.

On the motion of Director Grossi, and seconded by Director Fraites the Board authorized the General Manager to approve final text and design of the Summer 2020 West Marin “Waterline”, Volume 18 by the following vote:

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

NOES: None

ABSTAIN: None

ABSENT: None

**RESPONSE LETTER – 12461 SIR FRANCIS DRAKE BLVD.**

Mr. McIntyre thanked Mr. Shiller and Ms. Spelman, customers at 12461 Sir Francis Drake Blvd for joining the meeting and stated he appreciates their participation. He presented a draft response letter to the questions they raised in their most recent correspondence dated July 30, 2020. Mr. McIntyre reminded the Board that in July the residents requested a leak adjustment for a large water leak that occurred at their residence that was in excess of the standard allowed adjustments. Due to the enormous size of the leak and its remote location, the adjustment was granted by the Board with the stipulation they install a leak detection device on the private side. Mr. McIntyre stated that the recently received July 30th letter raised three requests: (1) that the District gives West Marin customers the opportunity to decide if they want to pay the costs of an AMI system installation, (2) that the District verify West Marin customers are not paying for Novato’s AMI system; and (3) that West Marin customers should have options available for more real time leak alerts. Mr. McIntyre added that the draft response letter addresses each request.

305 He noted that we will be moving forward with a West Marin Rate Study and will be looking at a  
306 five-year budget. Mr. McIntyre stated we will be holding workshops and welcoming input from  
307 customers as part of this process. Mr. McIntyre stated the workshops will discuss what Capital  
308 Improvement Projects (CIPs) will be the most important to the community. He added to clarify,  
309 West Marin customers are not being billed for the Novato AMI system since Novato has an entirely  
310 different budget. Mr. McIntyre added some potential capital improvement projects for  
311 consideration are new water supply tanks for expanded fire protection, an additional Gallagher  
312 Well to help with salinity intrusion, an AMI system, etc. He also stated the District is currently  
313 working on a pilot program that would subsidize installation of a private side leak detection device  
314 that would allow individual customers to track their use between billings.

315 Ms. Spelman stated the community meetings sounds interesting and she would be grateful  
316 if a discussion about an AMI system is included in the discussion. She asked when the research  
317 will be done, because she is afraid it will be pushed off. Mr. McIntyre replied that staff is currently  
318 working on a workshop schedule and will make outreach to the customers in West Marin. He  
319 added the AMI project was done in Novato first, because we wanted to learn about the system  
320 before considering it in West Marin. Additionally, Mr. McIntyre said we do not want to consider  
321 rolling it out in West Marin until it is fully vetted. He stated the timing of AMI is not immediate and  
322 will be part of the discussion during the workshop. Mr. McIntyre noted we will also test the interest  
323 with the new pilot program. Ms. Spelman asked what the pilot program was. Mr. McIntyre  
324 reiterated it is the Water Conservation pilot program that we are working on which will provide a  
325 rebate for customers who install a private water monitoring system. Ms. Spelman asked if there  
326 was funding for these rebates. Mr. McIntyre replied that is what they are looking at now and staff  
327 will come back to the Board with proposals, noting the money will come out of the West Marin  
328 conservation budget. Ms. Spelman asked if the interest community wide was 75% would there  
329 be enough rebate money. Mr. McIntyre responded that we will need to see how much interest  
330 there is and make adjustments where we can. Ms. Spelman asked if staff knew how much of a  
331 cost increase Novato customers pay, because of the AMI system. Mr. McIntyre replied he didn't  
332 have that cost memorized, but the systems are different and you can't assume the West Marin  
333 costs would be similar. Director Joly stated a pilot program will teach us a lot about the points  
334 that have been brought up and he applauded staff for putting a program in place. Mr. Schiller  
335 stated their system was difficult to put in, however it is working well, is easy to use and he can  
336 check the use on a daily basis. Director Joly stated on behalf of the Board he would like to thank  
337 Mr. Schiller and Ms. Spelman for their comments and for attending the meeting. Director Baker  
338 stated that he would like to echo what Mr. McIntyre said, AMI has been studied for quite some

time and it took longer to put it in place in Novato than was anticipated. He added this was the debut, we are satisfied it was a good decision; however, going out to West Marin is premature until we have a track record and work out any bugs. Director Petterle pointed out that in future the title of the memo should be made more specific to the subject rather than just list the address, so that people have a better understanding of what is being discussed at the meeting.

On the motion of Director Petterle, and seconded by Director Fraites the Board approved the proposed District response letter to the customers at 12461 Sir Francis Drake Blvd. by the following vote:

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

NOES: None

ABSTAIN: None

ABSENT: None

#### **INFORMATION ITEMS**

#### **FY 19-20 WATER CONSERVATION YEAR-END REPORT**

Mr. Grisso presented the FY 19-20 Water Conservation Year End Report. He reviewed the current water conservation programs, and summarized the public outreach and conservation marketing, budget and staffing. Mr. Grisso stated consumer participation continues to drop in post 2015 drought conditions and due to COVID; however, he has been able to interact with customers virtually and there was a good participation in July. He stated there has been a large effort in public outreach implemented over the last year the biggest being the website, becoming ADA compliant and mobile friendly, in addition to the redesign of the Waterline newsletter. Mr. Grisso noted we will be focusing on social media outreach to get our message out. Additionally, Mr. Grisso reported that even though some projects went above budget, overall, we were able to stay below budget due to repositioning of some projects due to COVID. He added the District was planning on taking a series of new photos so our website was more up to date than the stock photos we are currently using; but this project was delayed due to the shelter in place order. Director Joly congratulated Mr. Grisso for a very wonderful and informative report.

#### **FY 19-20 YEAR END PROGRESS REPORT – ENGINEERING DEPARTMENT**

Mr. McIntyre presented the FY 19-20 Year End Progress Report for the Engineering Department. He summarized the performance status for Capital Improvement Projects which includes; the Novato service area project costs variances, Novato recycled water service area project variances, West Marin and Oceana Marin project costs variances; and the Engineering Department labor hours.

Mr. McIntyre noted CIP expenditures for the Novato Service area were 45% and 5% of

the approved budgets, and West Marin and Oceana Marin CIP expenditures were at 92% of approved budgets. He added a total of 34 projects were budgeted, 11 projects were added and 4 were carried over and no projects were deferred or dropped. Mr. McIntyre stated at year-end, 33 of the 49 projects scheduled for completion in the FY 19-20 have been completed by all departments and all but two projects were completed at below original budget in the Novato Service Area and all of the West Marin projects were completed at or below the original budget. He reported at the end of the fourth quarter, actual engineering labor hours expended for Developer work increased by 35% compared to last fiscal year.

Director Fraites stated he would like to thank our line workers for doing the work that they are doing with this horrible air quality situation due to all the fires, they are going above and beyond the call of duty and he appreciates all they are doing for the District and our customers. Director Joly agreed. He thanked Mr. McIntyre for a wonderful report, and again to Ms. Chandrasekera for the wonderful job she did during all her years in the Engineering Department.

#### **MISCELLANEOUS**

The Board received the following miscellaneous items: Disbursements – Dated August 20, 2020, Disbursements – Dated August 27, 2020, Novato Creek Inundation Map Approval Letter, and Sonoma Water Press Release – Emergency Water Conservation Request is Lifted due to progress on halting spread of the Walbridge Fire.

The Board received the following news articles: Point Reyes Light -Inverness declares water shortage emergency; State Water Board Cancels October Wastewater Operators Exam; Marin Water Board VP Appointed to EPA Advisory Board; Marin IJ - Outages reveal snags in pivot to clean energy; Governor Newsom Announces Appointments 8.18.20 – Armando Quintero; Marin IJ - Waste maneuver could increase revenues, rates; Marin IJ - Marin Voice – With voters as partners, registrar shares election plan; Marin IJ - Wildfire grows to 2,860 acres – WEST MARIN and Point Reyes Light - Saltwater intrusion at North Marin wells reaches historic high.

Mr. McIntyre stated the District will continue to do what they can to get the salinity information out to the customers in Point Reyes and it will help to have the West Marin Waterline Newsletter to reinforce our message. Director Joly thanked all the staff for working in the current surreal conditions and in closing sent his good wishes to Ms. Chandrasekera.

#### **ADJOURNMENT**

President Joly adjourned the meeting at 7:48 p.m.

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Submitted by  
  
Theresa Kehoe  
District Secretary



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**NORTH MARIN WATER DISTRICT**  
**MONTHLY PROGRESS REPORT FOR *August 2020***  
September 15, 2020

1.

**Novato Potable Water Prod\* - RR & STP Combined - in Million Gallons - FYTD**

Month	FY20/21	FY19/20	FY18/19	FY17/18	FY16/17	21 vs 20 %
July	341.7	317.7	341.1	331.0	310.3	8%
August	290.1	287.1	300.9	303.0	299.6	1%
FYTD Total	631.7	604.7	642.0	634.0	609.8	4%

**West Marin Potable Water Production - in Million Gallons - FY to Date**

Month	FY20/21	FY19/20	FY18/19	FY17/18	FY16/17	21 vs 20 %
July	8.0	8.9	10.2	9.5	7.9	-10%
August	8.8	8.4	9.9	8.8	7.4	5%
FYTD Total	16.8	17.3	20.2	18.3	15.4	-3%

**Stafford Treatment Plant Production - in Million Gallons - FY to Date**

Month	FY20/21	FY19/20	FY18/19	FY17/18	FY16/17	21 vs 20 %
July	105.8	68.2	78.6	112.6	69.9	55%
August	81.1	103.8	79.3	81.5	90.4	-22%
FYTD Total	186.9	171.9	157.9	194.1	160.3	9%

**Recycled Water Production\* - in Million Gallons - FY to Date**

Month	FY20/21	FY19/20	FY18/19	FY17/18	FY16/17	21 vs 20 %
July	39.0	36.5	30.2	27.7	27.1	7%
August	42.9	33.3	30.6	26.1	26.0	29%
FYTD Total*	81.9	69.7	60.7	53.8	53.1	17%

\*Excludes potable water input to the RW system: FY21=7.4 MG; FY20=19.4; FY19=20.6 MG; FY18=15.8MG; FY17=.52MG

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**2. Stafford Lake Data**

	<b>August Average</b>		<b>August 2019</b>		<b>August 2020</b>	
Rainfall this month	0.05	Inches	0	Inches	0.07	Inches
Rainfall this FY to date	0.06	Inches	0	Inches	0.07	Inches
Lake elevation*	184.9	Feet	189.0	Feet	180.6	Feet
Lake storage**	686	MG	922	MG	491	MG

\* Spillway elevation is 196.0 feet

\*\* Lake storage less 390 MG = quantity available for delivery

**Temperature (in degrees)**

	<b>Minimum</b>	<b>Maximum</b>	<b>Average</b>
August 2019 (Novato)	56	109	76
August 2020 (Novato)	56	114	78

**3. Number of Services**

<b>August 31</b>	<b>Novato Water</b>			<b>Recycled Water</b>			<b>West Marin Water</b>			<b>Oceana Marin Swr</b>		
	FY21	FY20	Incr %	FY21	FY20	Incr %	FY21	FY20	Incr %	FY21	FY20	Incr %
Total meters installed	20,781	20,748	0.2%	98	95	3.2%	790	791	-0.1%	-	-	-
Total meters active	20,561	20,541	0.1%	93	91	2.2%	781	783	-0.3%	-	-	-
Active dwelling units	24,085	24,076	0.0%	-	-	-	831	833	-0.2%	235	235	0.0%

#### 4. Oceana Marin Monthly Status Report (August)

Description	August 2019	August 2020
Effluent Flow Volume (MG)	0.536	0.632
Irrigation Field Discharge (MG)	0.296	0
Treatment Pond Freeboard (ft)	6.2	4.9
Storage Pond Freeboard (ft)	10.2	10.9

#### 5. Developer Projects Status Report (August)

Job No.	Project	% Complete	% This month
1.2817.03	College of Marin – New Miwok Center	42	0
1.2828.00	Jonas Center (COM)	97	1
1.2795.00	McPhail's	96	1
1.2840.00	Starbucks Redwood	95	5
1.2820.00	Bahia Heights	1	0
1.2837.00	McPhails Phase 2A	50	50

#### District Projects Status Report - Const. Dept. (August)

Job No.	Project	% Complete	% This month
1.6112.24	Lynwood Pump Station MCC	16	0
2.6263.20	Replace PRE Tank 4A	50	5
1.7150.00	San Mateo Tank Inlet/Outlet	20	0
1.7183.00	Replace Plastic 4-inch –Scown Lane	80	5
2.7123.27	PB Replacements – Caltrans (WM Highway 1)	90	15
1.7123.28	PB Replacements – San Ramon, Vivian, Verissimo	5	5

#### Employee Hours to Date, FY 19/20

As of Pay Period Ending August 31, 2020

Percent of Fiscal Year Passed = 17%

Developer Projects	Actual	Budget	% YTD Budget	District Projects	Actual	Budget	% YTD Budget
Construction	99	1,400	7%	Construction	787	3,460	23%
Engineering	358	1,504	24%	Engineering	523	2,722	19%

#### 6. Safety/Liability

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Industrial Injury with Lost Time				Liability Claims Paid	
Lost Days	OH Cost of Lost Days (\$)	No. of Emp. Involved	No. of Incidents	Incurred (FYTD)	Paid (FYTD) (\$)
11	\$4,840	1	1	0	\$0
0	\$0	0	0	0	\$0

FY 21 through August

FY 20 through August

Days without a lost time accident through August 31, 2020

69 Days

## 7. Energy Cost

FYE	kWh	August		Fiscal Year-to-Date thru August		
		¢/kWh	Cost/Day	kWh	¢/kWh	Cost/Day
2021 Stafford TP	89,767	19.2¢	\$556	95,067	19.6¢	\$301
Pumping	187,568	25.5¢	\$1,497	355,504	25.7¢	\$1,497
Other*	52,250	30.9¢	\$504	97,642	30.2¢	\$484
	329,586	24.7¢	\$2,557	548,213	25.4¢	\$2,282
2020 Stafford TP	94,756	18.6¢	\$568	169,454	18.9¢	\$500
Pumping	178,683	23.5¢	\$1,355	338,918	23.3¢	\$1,297
Other*	56,032	27.7¢	\$501	110,283	18.9¢	\$518
	329,471	22.8¢	\$2,424	618,655	22.9¢	\$2,315
2019 Stafford TP	69,701	19.7¢	\$443	150,306	19.7¢	\$478
Pumping	166,623	20.2¢	\$1,123	348,990	20.3¢	\$1,143
Other*	49,239	26.6¢	\$436	101,306	26.3¢	\$430
	285,563	21.2¢	\$2,002	600,602	21.2¢	\$2,051

\*Other includes West Marin Facilities

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## 8. Water Conservation Update

	Month of August 2020	Fiscal Year to Date	Program Total to Date
High Efficiency Toilet (HET) Rebates	9	15	4,181
Retrofit Certificates Filed	27	47	6,453
Cash for Grass Rebates Paid Out	2	3	934
Washing Machine Rebates	1	4	6,808
Water Smart Home Survey	0	0	3,899

## 9. Utility Performance Metric

SERVICE DISRUPTIONS (No. of Customers Impacted)	August 2020	August 2019	Fiscal Year to Date 2020	Fiscal Year to Date 2019
PLANNED				
Duration Between 0.5 and 4 hours	23	4	55	6
Duration Between 4 and 12 hours				96
Duration Greater than 12 hours				
UNPLANNED				
Duration Between 0.5 and 4 hours	4	9	27	12
Duration Between 4 and 12 hours				
Duration Greater than 12 hours	1		1	
SERVICE LINES REPLACED				
Polybutylene	22	11	32	16
Copper (Replaced or Repaired)	3	1	3	1

# NORTH MARIN WATER DISTRICT

## Summary of Complaints & Service Orders August 2020

9/9/2020

Type	Aug-20	Aug-19	Action Taken August 2020
<b><u>Consumers' System Problem</u></b>			
Service Line Leaks	17	61	Notified Consumer
House Plumbing	1	0	Notified Consumer
Noisy Plumbing	0	1	Notified Consumer
House Valve / Meter Off	7	21	Notified Consumer
Nothing Found	6	24	Notified Consumer
Low Pressure	1	2	House valve not all the way on-Pipeworker turned it on.
High Pressure	1	4	PRV failed @ 100 PSI. They will replace PRV.
<b>Total</b>	<b>33</b>	<b>113</b>	
<b><u>Service Repair Reports</u></b>			
Meter Replacement	2	1	Replaced
Meter Box Alignment	0	1	~
Water Off/On Due To Repairs	6	10	Notified Consumer
Misc. Field Investigation	11	11	Notified Consumer
<b>Total</b>	<b>19</b>	<b>23</b>	
<b><u>Leak NMWD Facilities</u></b>			
Main-Leak	1	1	Repaired
Service- Leak	11	4	Repaired
Services-Nothing Found	1	0	Notified Consumer
Fire Hydrant-Leak	2	1	Repaired
Fire Hydrants-Damaged	2	0	Repaired
Meter Leak	0	4	Repaired
Meters-Nothing Found	0	1	Notified Consumer
Meters Damaged	0	1	~
Washer Leaks	12	6	Repaired
<b>Total</b>	<b>29</b>	<b>18</b>	
<b><u>High Bill Complaints</u></b>			
Consumer Leaks	0	1	Notified Consumer
Meter Testing	1	0	Notified Consumer
Meter Misread	2	0	Notified Consumer
Nothing Found	2	3	Notified Consumer
Excessive Irrigation	4	13	Notified Consumer
<b>Total</b>	<b>9</b>	<b>17</b>	
<b><u>Low Bill Reports</u></b>			
<b>Total</b>	<b>0</b>	<b>0</b>	
<b><u>Water Quality Complaints</u></b>			
Taste and Odor	0	4	~
Color	0	1	
Other	0	1	
<b>Total</b>	<b>0</b>	<b>6</b>	
<b>TOTAL FOR MONTH:</b>	<b>90</b>	<b>177</b>	<b>-49%</b>



# NORTH MARIN WATER DISTRICT

## Summary of Complaints & Service Orders August 2020

9/9/2020

Type	Aug-20	Aug-19	Action Taken August 2020
<b><u>Fiscal YTD Summary</u></b>			<b><u>Change Primarily Due To</u></b>
Consumer's System Problems	88	199	-56% Decrease In Service Line Leaks.
Service Repair Report	41	44	-7% Decrease In Water Off/On Due To Repair.
Leak NMWD Facilities	52	49	6% Increase In Washer Leaks.
High Bill Complaints	12	24	-50% Decrease In Excessive Irrigation.
Low Bills	0	0	0% No Change.
Water Quality Complaints	0	8	-100% Decrease in Taste and Odor.
Total	<u>193</u>	<u>324</u>	<u>-40%</u>

### **"In House" Generated and Completed Work Orders**

<b><u>Check Meter:</u></b> possible consumer/District leak, high bill, flooded, need read, etc.	32	138
<b><u>Change Meter:</u></b> leaks, hard to read	4	6
<b><u>Possible Stuck Meter</u></b>	1	0
<b><u>Repair Meter:</u></b> registers, shut offs	2	1
<b><u>Replace Boxes/Lids</u></b>	3	2
<b><u>Trims</u></b>	1	1
<b><u>Dig Outs</u></b>	1	1
	<u>44</u>	<u>149</u>

### Bill Adjustments Under Board Policy:

#### **August 20 vs. August 19**

Aug-20	21	\$3,958
Aug-19	45	\$10,458

#### **Fiscal Year vs Prior FY**


20/21 FY	33	\$13,583
19/20 FY	56	\$13,183

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## MEMORANDUM

To: Board of Directors

September 11, 2020

From: Julie Blue, Auditor-Controller   
Nancy Holton, Accounting Supervisor

Subj: Auditor-Controller's Monthly Report of Investments for August 2020

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**RECOMMENDED ACTION:** Information

**FINANCIAL IMPACT:** None

At month end the District's Investment Portfolio had an amortized cost value (i.e., cash balance) of \$20,317,811 and a market value of \$20,382,263. During August the cash balance decreased by \$961,891. The market value of securities held increased \$64,451 during the month. The ratio of total cash to budgeted annual operating expense stood at 114%, down 5% from the prior month.

At August 31, 2020, 63% of the District's Portfolio was invested in California's Local Agency Investment Fund (LAIF), 24% in Time Certificates of Deposit, 5% in US Treasury Notes, 5% in the Marin County Treasury, and 3% retained locally for operating purposes. The weighted average maturity of the portfolio was 81 days, compared to 87 days at the end of July. The LAIF interest rate for the month was 0.78%, compared to 0.92% the previous month. The weighted average Portfolio rate was 1.29%, compared to 1.36% the previous month.

Investment Transactions for the month of August are listed below:

8/5/2020	LAIF	US Bank	\$745,000.00	Trsf from LAIF account
8/13/2020	US Bank	LAIF	\$500,000.00	Trsf to LAIF account
8/17/2020	Bank of America	US Bank	\$249,410.30	TCD Matured
8/20/2020	LAIF	US Bank	\$650,000.00	Trsf from LAIF account

**NORTH MARIN WATER DISTRICT**  
**AUDITOR-CONTROLLER'S MONTHLY REPORT OF INVESTMENTS**  
**August 31, 2020**

Type	Description	S&P Rating	Purchase Date	Maturity Date	Cost Basis <sup>1</sup>	8/31/2020 Market Value	Yield <sup>2</sup>	% of Portfolio
<b>LAIF</b>	State of CA Treasury	AA-	Various	Open	\$12,714,318	\$12,776,781	0.78% <sup>3</sup>	<b>63%</b>
<b>Time Certificate of Deposit</b>								
TCD	Ally Bank	n/a	9/28/18	9/28/20	246,000	246,000	2.80%	1%
TCD	Barclays Bank	n/a	11/14/18	11/16/20	246,000	246,000	3.00%	1%
TCD	CIT Bank	n/a	12/17/18	12/17/20	246,000	246,000	3.00%	1%
TCD	Reliance Bank	n/a	1/11/19	1/11/21	249,000	249,000	2.70%	1%
TCD	Iberia Bank	n/a	1/25/19	1/25/21	246,000	246,000	2.70%	1%
TCD	Merrick Bank	n/a	2/8/19	2/8/21	249,000	249,000	2.60%	1%
TCD	Eaglebank	n/a	3/15/19	3/15/21	249,000	249,000	2.60%	1%
TCD	Central Bank	n/a	4/18/19	4/19/21	249,000	249,000	2.40%	1%
TCD	Morgan Stanley Private Bank	n/a	5/23/19	5/24/21	247,000	247,000	2.40%	1%
TCD	TIAA Bank	n/a	1/18/19	7/19/21	246,000	246,000	2.75%	1%
TCD	Capital One Bank NA	n/a	8/21/19	8/23/21	247,000	247,000	1.85%	1%
TCD	Capital One Bank USA	n/a	9/6/19	9/7/21	247,000	247,000	1.75%	1%
TCD	Goldman Sachs Bank USA	n/a	10/11/19	10/12/21	247,000	247,000	1.70%	1%
TCD	Flagstar Bank	n/a	11/15/19	11/15/21	247,000	247,000	1.75%	1%
TCD	Synovus Bank	n/a	12/9/19	12/9/21	247,000	247,000	1.65%	1%
TCD	Morgan Stanley Bank	n/a	1/16/20	1/18/22	247,000	247,000	1.75%	1%
TCD	Wells Fargo National Bank	n/a	3/6/20	3/7/22	248,000	248,000	1.35%	1%
TCD	American Express Natl Bank	n/a	4/7/20	4/7/22	248,000	248,000	1.35%	1%
TCD	Synchrony Bank	n/a	4/17/20	4/18/22	248,000	248,000	1.20%	1%
TCD	Pinnacle Bank	n/a	5/7/20	5/9/22	248,000	248,000	0.90%	1%
					<b>\$4,947,000</b>	<b>\$4,947,000</b>	<b>2.14%</b>	<b>24%</b>
<b>US Treasury Notes</b>								
Treas	2.750%	n/a	3/5/19	9/30/20	1,000,175	1,002,163	2.76%	5%
					<b>\$1,000,175</b>	<b>\$1,002,163</b>	<b>2.75%</b>	<b>5%</b>
<b>Other</b>								
Agency	Marin Co Treasury	AAA	Various	Open	\$1,049,390	\$1,049,390	2.22%	5%
Other	Various	n/a	Various	Open	606,928	606,928	0.41%	3%
<b>TOTAL IN PORTFOLIO</b>					<b>\$20,317,811</b>	<b>\$20,382,263</b>	<b>1.29%</b>	<b>100%</b>

Weighted Average Maturity = **81 Days**

LAIF: State of California Local Agency Investment Fund.

TCD: Time Certificate of Deposit, Treas: US Treasury Notes with maturity of 5 years or less.

Agency: STP State Revolving Fund Loan Reserve.

Other: Comprised of 5 accounts used for operating purposes. US Bank Operating Account, US Bank STP SRF Loan Account, US Bank FSA Payments Account, Bank of Marin AEEP Checking Account & NMWD Petty Cash Fund.

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

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

3 Earnings are calculated daily - this represents the average yield for the month ending August 31, 2020.

<b>Interest Bearing Loans</b>	Loan Date	Maturity Date	Original Loan Amount	Principal Outstanding	Interest Rate
Marin Country Club Loan	1/1/18	11/1/47	\$1,265,295	\$1,167,544	1.00%
Employee Housing Loans (2)	Various	Various	525,000	525,000	Contingent
<b>TOTAL INTEREST BEARING LOANS</b>			<b>\$1,790,295</b>	<b>\$1,692,544</b>	

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

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## MEMORANDUM

To: Board of Directors September 11, 2020  
From: Ryan Grisso, Water Conservation Coordinator *RG*  
Subject: Approve – Water Use and Leak Detection Device Pilot Program for the West Marin Service Area  
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**RECOMMENDED ACTION:** Approve Water Use and Leak Detection Device Pilot Program

**FINANCIAL IMPACT:** Up to \$5,600 (in WM FY21 and WM FY22 Budgets)

Introduction:

When compared with Novato customers using the newly deployed AMI technology, water customers in the West Marin Service Area do not have near real time information available to them regarding how much water they use and when and where they use it. Per standard practice, the District only reads the water meters on a bi-monthly (60 day) period which gives the customer six data points a year on their water use. Unless customers manually read their meters on a frequent basis it is difficult for the customer to understand water use patterns and to identify leaks and other high water use events until quite some time after the use has occurred or began.

In recent years flow monitoring technology has been developed to allow customers to purchase devices that measure real-time water use, provide leak alerts and down to the minute water flow information. All of this water use data is accessible directly to the customer on their personal smart phones. These devices are self-installed on the water meter and relay the information through the customer's Wi-Fi.

Pilot Program:

Due to several customer leaks and customer inquiries this summer, staff looked into the possibility of a pilot program to incentivize the installation of these devices to test out their capabilities and effectiveness for the customers and the District in the West Marin Service Area. Staff researched into available products in the market and what other water utilities were implementing in this area, and determined that the Flume device was the best fit for the pilot program due to ease of installation, cost effectiveness, and having no requirements for a plumber installation. Staff has received favorable feedback on the product from other water utilities and from customers who have already installed the devices in the West Marin Service Area. Flume also offers the water utility a dashboard view of the customer's water use (with customer permission granted through the purchase process).

The pilot program would consist of a cost shared distribution of the device with purchase directly through Flume's website. The devices are normally \$199; however, the District would pay

\$140 per device directly to Flume, and the customer would pay the remaining \$50 plus tax and shipping (only on the \$50). Staff and Flume agree that a customer stake in the purchase will ensure a greater likelihood of installation and use. Through the purchase process the customers would grant permission for Flume to share customer water use with the District through their utility dashboard. The customer would also agree to install the device within a certain time period to be able to receive the \$10 refund from Flume and to avoid being charged on their water bill for the remaining \$140 amount funded by the District. Staff is proposing a cap of 40 devices and to run the availability of participation through FY22, with the possible extension to FY23 if the participation goal was not achieved.

#### RECOMMENDATION

Board authorize the General Manager to implement the Water Use and Leak Detection Pilot Program for the West Marin Service Area.

# Flume Smart Home Water Monitor

Project Proposal for North Marin Water District



August 26, 2020

**Prepared by:**

Ian Castillo and Sarah Musiker  
75 Higuera St. Suite 120  
San Luis Obispo, CA 93401  
[partnerships@flumewater.com](mailto:partnerships@flumewater.com)

## Document Contents:

- I. [Program Overview](#)
- II. [Solution Proposal and Process](#)
- III. [Product Description](#)
  - A. Customer Facing Application
  - B. Utility Facing Dashboard
  - C. Future Offerings
- IV. [Sole Source Justification](#)
- V. [Customer Participation Agreement](#)
- VI. [Marketing and Adoption](#)
- VII. [Support](#)
- VIII. [Pricing](#)
- IX. [Contact Information](#)



## Program Overview:

North Marin Water District (NMWD) is a special district providing water services to approximately 20,535 customers in the City of Novato, CA, and 750 customers in West Marin. Each system is maintained independently with different levels of metering infrastructure.

NMWD's service area in Novato currently operates under an AMI system, providing water customers with hourly chunks of water use and leak detection information 24 hours delayed via a customer portal.

AMI is not yet a viable option in West Marin. As a result, customers there receive water use information via their monthly water bill every 60 days, which is often too late for homeowners to address out-of-sight leaks or high consumption. This problem is especially compounded for those with vacation homes. As a result of inability to access their water use and leak detection information, water customers are unable to take action until it is too late. It is not uncommon for NMWD to receive many applications for leak forgiveness, creating non-revenue water concerns and a strained relationship between customers and their water utility.

NMWD has undertaken a number of traditional rebate solutions to help advance the district's conservation goals. They are currently seeking a new solution and distribution program that effectively engages and informs their customers about water use at a higher level of immediacy and granularity.

Flume provides utilities and customers with an effective means to efficiently measure their water use in real-time. Instead of relying on monthly snapshots or delayed flow data, the Flume Smart Home Water Monitor gives homeowners real-time insights of their water usage. Inspired by the cycle of drought in California, the Flume founders created a device that empowers end-users with a self-installed, whole-home monitoring solution that offers minute-by-minute use information, leak detection, and personalized water budgets utilizing a smartphone application. The information is then uploaded into a utility-specific dashboard and shared with water utilities to help turn these insights into action.

## Solution Proposal and Process:

To help NMWD achieve their goals of reducing water demand and increasing local engagement with water customers, Flume is proposing a partnership with the district to deploy a suite of hardware, software and services for a Flume-specific direct distribution program that optimally address the following needs for NMWD and their customers:

By partnering with Flume, NMWD ensures that both the utility and the end customer are receiving benefits. This distribution program includes:

- Simple and Replicable Ordering: Using recreatable landing pages, Flume's ordering process works directly with the customer, verifying eligibility and service addresses, applying subsidies, and obtaining data-sharing agreements upfront. This makes for a low administrative burden and makes the enrollment experience easier for the customer.
- Direct Access to Water Data: Both customers and utility will have direct access to down-to-the-minute data. Using Flume's online portal and customer smartphone interfaces, Flume provides disaggregated indoor and outdoor water use information, helping to catch leaks, change behavior and mitigate customer complaints.

Specifically, Flume provides:

Customer:

1. Whole home (indoor and outdoor), real-time water monitoring via the Flume App
2. Intelligent leak detection and notifications
3. Customizable water budgets and usage alerts
4. Disaggregation or separation of indoor and outdoor water use
5. Increased customer satisfaction and transparency

NMWD:

1. Utility-specific landing pages for simplified ordering processes and subsidized rates
2. Access to high resolution consumption data, with ability to disaggregate end-use
3. Ability to engage customers regarding their usage and behavior
4. Improved efficiency and decrease in non-revenue water and/or bill credits
5. Increased customer satisfaction and improved utility-homeowner relationship
6. Improved forecasting abilities via disaggregation data

## Product Description

The Flume Smart Home Water Monitor utilizes a sensor that straps around the existing water meter and reads the magnetic signal coming from the meter's mechanical register. The system translates this signal to a flow rate in real-time, and transmits and transforms the data for customers and utilities.



**Customer Facing Application:** For the customer, the Flume App provides easy-to-understand information about the homeowner's water consumption. An overview of water use in 30-second intervals — and with an upcoming update down to 5-seconds — allows users to see in real-time where their water is going. Specifically, the Flume App provides the following data and options to customers:



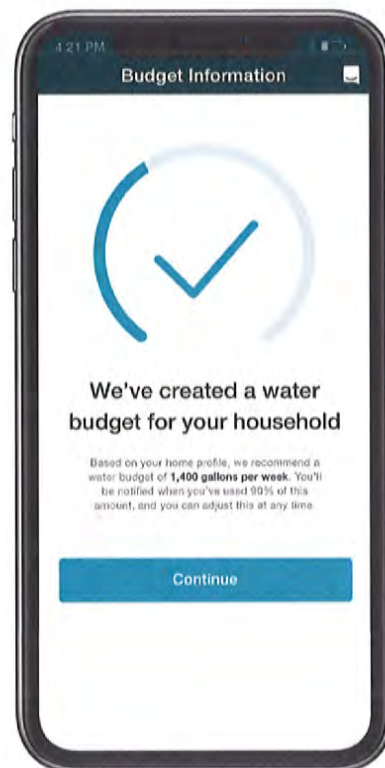


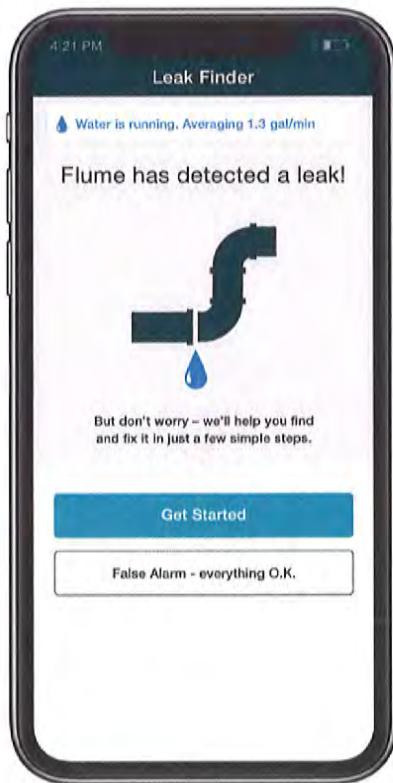
Total Daily Water Use: Customers can view total daily usage in gallons and as a percentage of their daily budget.

Live Water Status: Customers are able to see if water is or is not running in their home in real-time, in 30 second segments.

Aggregate Water Usage Information: View total volume of water used on a daily, weekly, monthly, or annual basis.

Water Budgeting: Some homeowners in drought-stricken areas are charged a penalty if they use more than a certain amount of water in a given day or month. Other homeowners are trying to reduce their water usage and/or their water bills. All Flume users have the capacity to set Budgets to help them monitor (and reduce) their water usage.





Live System Alerts: Customers are alerted if they surpass budgets, if the system detects a leak, and more. Notifications provide flow rate and duration of sustained flow information that triggered the alert. Flume offers water usage granularity down to the hundredth of a gallon per minute, catching even the smallest of leaks.

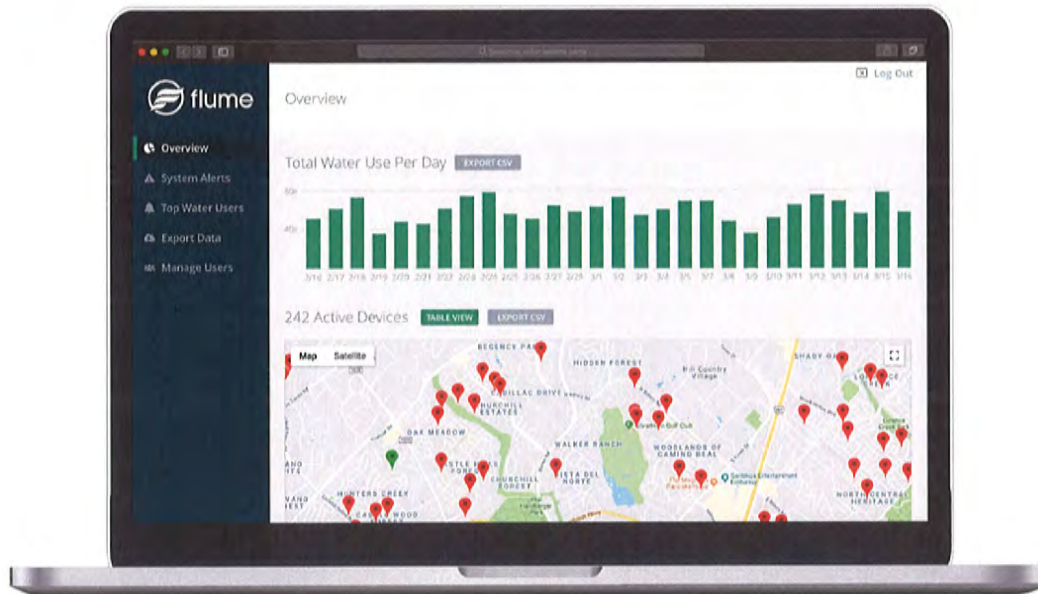
Flume users, on average, check their app at least once every two days. As the Flume customer app increases understanding and education about water consumption, users are empowered to create budgets and stay apprised of any leaks that may cause damage or high bills.

### Sample Project Results:

Metrics of Success			
Utility	% that found leaks	% net reduction in consumption relative to control group	% that report change in water usage behavior
Rainbow Municipal Water District	63%	9%	88%
San Antonio Water System	>50%	18%	66%
Contra Costa Water District	66%	17%	67%

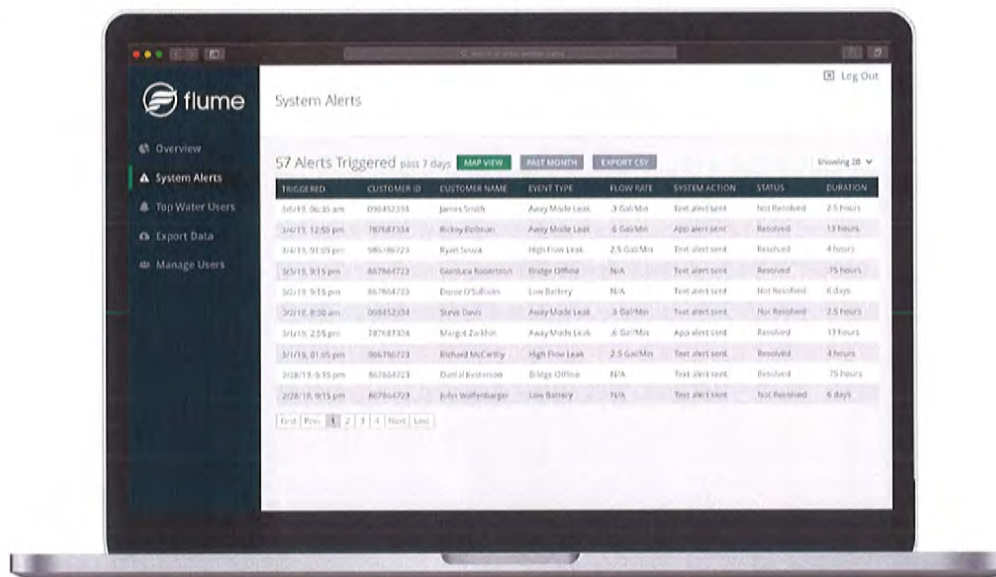
**Utility Facing Dashboard:** For water utilities, the Flume Dashboard creates a seamless interface between customer water usage data and water utilities. This enables better understanding of water use, leaks, and overall consumption data at the micro and macro level. Specifically, Flume's utility dashboard provides retailers with the following data/capabilities:





Aggregate water usage information: View total volume of water used by customers on a daily basis over the last 30 days.

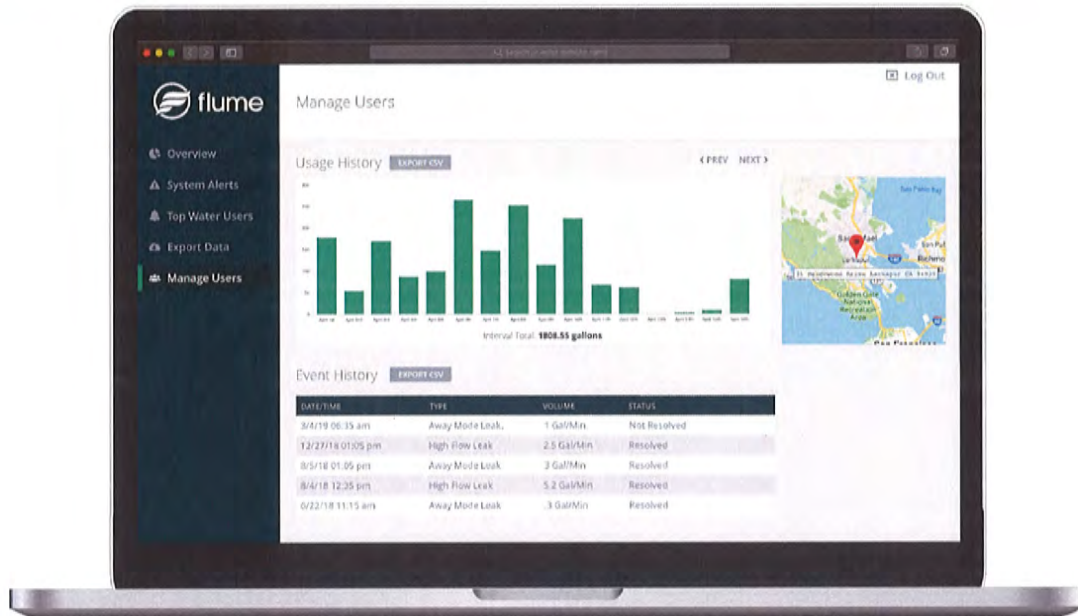
Interactive Map: See where Flume customers have installed their devices and where they are in the installation process; online, offline, incomplete, not started.



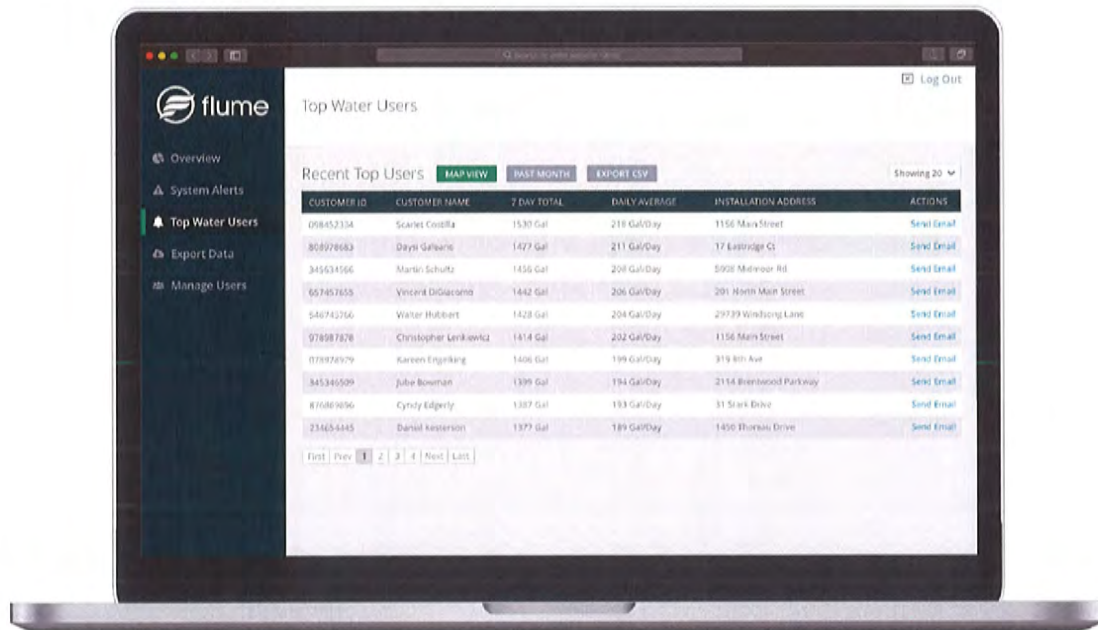
The screenshot shows the Flume System Alerts dashboard. On the left is the same navigation menu as the Overview page. The main content area is titled 'System Alerts' and includes a 'Log Out' button. It shows '57 Alerts Triggered past 7 days' with 'MAP VIEW', 'LAST MONTH', and 'EXPORT CSV' buttons. A table lists the alerts with columns: TRIGGERED, CUSTOMER ID, CUSTOMER NAME, EVENT TYPE, FLOW RATE, SYSTEM ACTION, STATUS, and DURATION. The table is paginated, showing 10 alerts per page.

TRIGGERED	CUSTOMER ID	CUSTOMER NAME	EVENT TYPE	FLOW RATE	SYSTEM ACTION	STATUS	DURATION
5/6/19, 9:35 am	090452355	James Smith	Away Mode Leak	3 Gal/Min	Text alert sent	Not Resolved	2.5 hours
5/6/19, 12:55 pm	78787324	Wickey Bollean	Away Mode Leak	6 Gal/Min	App alert sent	Resolved	13 hours
5/6/19, 9:10 pm	986186729	Ryan Senac	High Flow Leak	2.5 Gal/Min	Text alert sent	Resolved	4 hours
5/3/19, 9:15 pm	867847723	Gandara Robertson	Bridge Offline	N/A	Text alert sent	Resolved	75 hours
5/2/19, 9:15 pm	867804723	Doree D'Silva	Low Battery	N/A	Text alert sent	Not Resolved	6 days
5/2/19, 8:30 am	908452354	Steve Davis	Away Mode Leak	3 Gal/Min	Text alert sent	Not Resolved	2.5 hours
5/1/19, 2:25 pm	78787324	Margit Zucklin	Away Mode Leak	6 Gal/Min	App alert sent	Resolved	13 hours
5/1/19, 01:05 pm	986786723	Richard McCarthy	High Flow Leak	2.5 Gal/Min	Text alert sent	Resolved	4 hours
2/28/19, 9:15 pm	867804723	Danielle Anderson	Bridge Offline	N/A	Text alert sent	Resolved	75 hours
2/28/19, 9:15 pm	867804723	John Wolfenbarger	Low Battery	N/A	Text alert sent	Not Resolved	6 days

Live queue of system alerts: See what notifications are triggered by customers; budgets, leaks and more. View flow rate and duration of sustained flow that triggered notifications by water customers. Level of water usage granularity offered involves insight down to the hundredth of a gallon per minute.



**Real-time insights:** View individual water customers' consumption data down to the minute, enabling the opportunity to help water customers understand their water usage habits and assist in troubleshooting leaks or other forms of water waste.



**Top water users:** Focused attention to high bill customers and opportunity to visualize top water users of the last 7, 30, or 60 days.

Flume's comprehensive, integrated solution is designed to help increase water-use efficiency and customer satisfaction in a manner that is frictionless. The customer application has



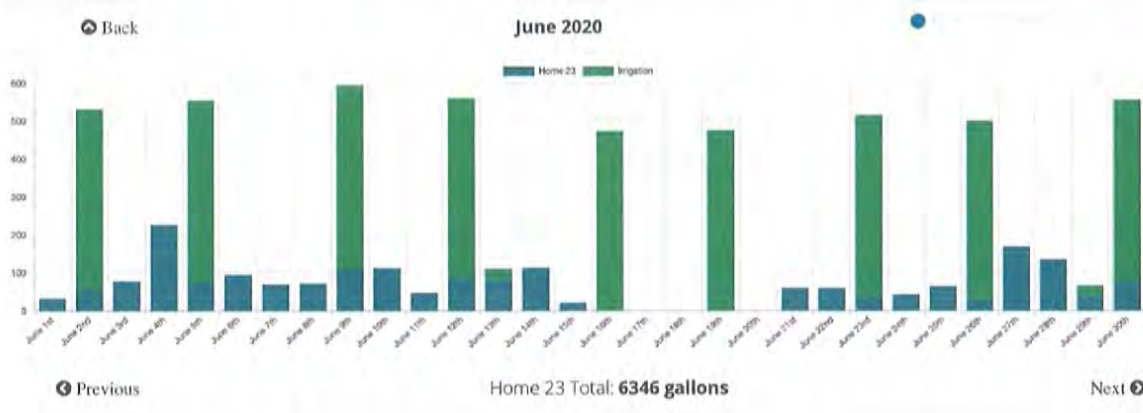
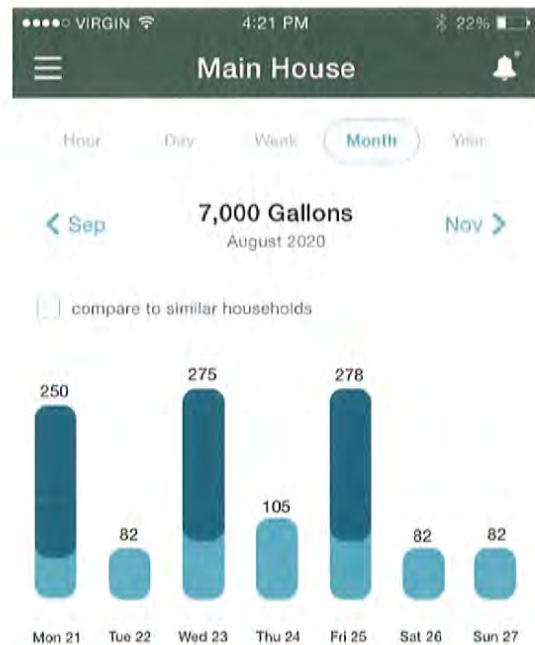
consistently provided water users with greater understanding and a stronger relationship with their water usage and consumption behavior.

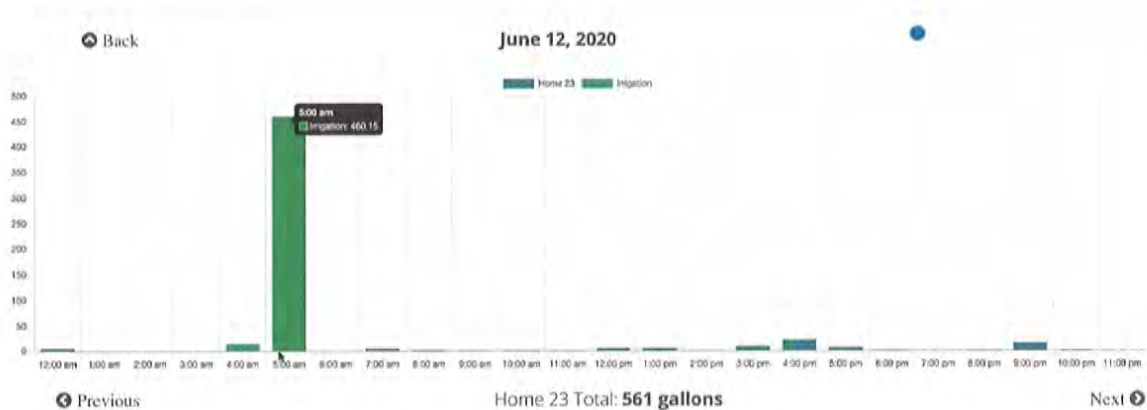
**Future Dashboard and App Offerings:** With the launch of Flume 2, the company is transforming the industry with high-definition localized water consumption data. The first solution that is launching simultaneously with the new device will provide disaggregation of indoor and outdoor water use on top of all the features provided in the current customer App and Utility Dashboard.

Using 5 second reads of water usage throughout the home, Flume will be able to provide volumetric separation of daily consumption. Homeowners currently have no insight into the actual amount of water used on irrigation versus inside the home. Generally, irrigation systems often have leaks and other malfunctions that cause excessive water waste, which lead to costly water bills. This new system will be able to pinpoint the source of leaks, making these issues easier for homeowners to address.

With usage amounts, homeowners are empowered with greater understanding of their water usage and empowered to optimize their consumption. Additionally, they will have the capacity to compare their water usage data to similar households of their size and location, creating benchmarks and greater understanding of conservation capacity.

Utilities will gain access to disaggregated data as well. The data will be coded as indoor or outdoor, and can be broken down by daily segments, hourly segments, and even minute to minute.





## Sole Source Justification:

Despite some utilities having strict regulations limiting sole-source rebate or pilot programs, Flume programs have consistently received this justification. Flume is the only device on the market that empowers both customers and utilities with a self-installed, whole-home solution that offers granular real-time monitoring, leak detection, and water budgeting.

- DIY Installation: Flume is the only product in the category that does not require the cutting of pipe and is easily and safely installed by the homeowner. Flume does not permanently modify infrastructure or plumbing.
- Indoor/Outdoor Capture: Flume is the only product in the category that captures indoor and outdoor water use. Since the device is installed on the meter it is guaranteed to capture irrigation use.
- Reporting Accuracy: Unlike ultrasonic or other in-line solutions, Flume is 1:1 with the meter and AWWA M6 certified for accuracy. This ensures that bills will not be contested by ratepayers based on disparate readings.
- Utility Focus: Flume is the only product in the category that's been sole-sourced by water utilities, and is leveraged by various state and planning agencies for end-use disaggregation. Likewise, Flume is the only company in the category offering a utility-facing dashboard.
- Lack of Recurring Fees to Homeowners: Flume is the only product in the category that does not require any subscriptions or monthly payments from homeowners.



## Customer Participation Agreement

Every customer that purchases a Flume device through their utility-specific landing page will be required to fill out a data-sharing and participation agreement. These agreements feature the following information, and can be modified by NMWD or their partner agencies as they see fit:

*I acknowledge and understand the following:*

- *I understand that as part of this rebate program, I will receive the Flume Water Sensor for the discounted price of \$XX plus tax. The retail price is \$199 plus tax and shipping.*
- *I will be billed for water consumption based only on measurements from the Demo Water District meter. The Flume Water Sensor provides detailed information on daily water use. Its readings will not match the total monthly reads from the Demo Water District meter, which are read in different units and do not always coincide with the calendar month.*
- *This offer is non-transferable. The Flume Water Sensor must be installed at the property associated with the account that received the offer.*
- *I am the account holder of the property where the Flume Water Sensor will be installed and understand by accepting this offer, I own the device.*
- *I am physically able to install the Flume Water Sensor on my water meter, which may require bending over my in-ground meter box and working with my home Wi-Fi system.*
- *My home has Wi-Fi and should for the next year of the program.*
- *I am able to plug the Flume Bridge into a power outlet inside my home and am able to connect it to my home's Wi-Fi. This process is similar to installation of other smart home technology.*
- *I have a smartphone or other mobile device and I agree to accept Flume notifications when sent through the mobile app. Feedback on the notifications is an important program component. I understand that if I disable these messages I could miss key information such as increases in my water use.*
- *This system presents no guarantee for reductions in water use.*
- *Flume will be sharing water use data with Demo Water District.*
- *I agree to participate in at least one follow-up survey conducted by Demo Water District.*
- *As a part of the program, I agree to keep the Flume Water Sensor installed for one year.*
- *I agree to install the Flume Water Sensor device without tampering with the meter in any other way.*
- *If I purchase the Flume Water Sensor and fail to install it at the approved property, Flume will withhold a final rebate amount of \$XX. The Flume Water Sensor must be installed within 30 days of delivery or returned to Flume. Flume can send a mailing label for this purpose and will refund my payment.*

## Marketing and Adoption

As part of the program, Flume will create a marketing package that can be leveraged by NMWD to market to their ratepayer base. This will include, but is not limited to, sample imagery, graphics, and suggested messaging/copy.

This proposal suggests that customers be directed to a co-branded landing page, hosted by Flume, that provides education on the product and hosts visitors through a sign-up process for the product's ordering and installation.

Flume has extensive experience administering distribution programs in partnership with water utilities, insurance companies, and other strategic partners. Flume's proven marketing and fulfillment process enables the company to recruit homeowners, distribute Flume Smart Water Systems, and confirm activation and installation rapidly and inexpensively.

At the request of NMWD, Flume can:

- Create and maintain a customized retail co-branded landing page
- Provide automated program eligibility verification
- Secure ratepayer agreement to Terms and Conditions, as defined by NMWD
- Manage electronic scheduling and automatic reminders for installation Manage a waitlist if customer demand exceeds supply

Utilizing Flume's turn-key ordering, marketing, and support services reduces administrative burden on NMWD, while reaping the benefits of this offering. These support services exponentially increase the reach of this device by reducing upfront costs to end-customers and improve the ability of partner agencies to aggregate, understand, and share data through consumer participation agreements

## Support

Flume's world-class support network will be made available to all customers and utility staff from 7:00 AM to 7:00 PM Pacific Time, 7 days a week. This network consists of approximately 15 staff dedicated to addressing product issues, helping identify leaks, and other inquiries. For the duration of NMWD's Flume program, expedited support service will be provided with a goal of contact resolution within 1 hour.

To ensure an optimal level of correspondence and the effective delivery of NMWD's Flume program, a project manager will be assigned to NMWD.



## Pricing

### Setup Costs

There is normally a \$5,000 setup fee for the creation of retailer-specific landing pages. This covers our expenses for project management, custom landing page (e.g. flumewater.com/xyzutility), marketing support, and more. However, Flume will waive this fee for NMWD.

### Rebate Program

Flume devices currently retail for \$199, plus tax and shipping. With a rebate provided by NMWD, customers will be able to opt-in to the program for \$50, plus tax and shipping. Upon installation, Flume will issue an additional subsidy of \$10, bringing the final cost to the customer down to just \$40, plus tax and shipping.

	Tier	NMWD Subsidy	Customer Pays	Flume pays Customer after Install
Flume Smart Water System	0-199	\$140	\$50 + taxes + shipping	\$40
	200-499	\$135	\$50 + taxes + shipping	\$40
	500+	\$130	\$50 + taxes + shipping	\$40

The Customer Participation Agreement requires that all customers must accept the following condition: "If I purchase the Flume Water Sensor and fail to install it at the approved property, Flume will withhold a final installation subsidy of \$10. The Flume Water Sensor must be installed within 30 days of delivery or returned to Flume. Flume can send a mailing label for this purpose and will refund my payment."

### Dashboard Access

Below is the pricing for Flume's upgraded utility platform, that we will begin billing for in January 2021. This enhanced dashboard features indoor and outdoor disaggregation data in addition to detailed insights on aggregate water use across the service area. **Should NMWD choose to discontinue its use of the end-use data provided in the Dashboard, NMWD may do so at any time without incurring penalties, and revert to the use of the base platform at no cost, which includes basic leak detection and flow information, but excludes end-use disaggregation.**

Flume Utility Dashboard	Tier	Monthly Recurring Cost per Endpoint to NMWD
	0-199	\$0.99
	200-499	\$0.85
	500+	\$0.65

## Contact Information

Sarah Musiker  
 Director of Utilities  
[sarahm@flumewater.com](mailto:sarahm@flumewater.com)  
 510-203-7394

Ian Castillo  
 Utility Relations Manager  
[ian@flumewater.com](mailto:ian@flumewater.com)  
 949-378-5453

Flume, Inc.  
 75 Higuera St. Suite 120  
 San Luis Obispo, CA 93401

**7**

## MEMORANDUM

To: Board of Directors September 11, 2020

From: Ryan Grisso, Water Conservation Coordinator *R6*

Subject: Approve – Consulting Agreement for Preparation of the 2020 Urban Water Management Plan Update

R:\Folders by Job No\4000 jobs\4250 01 2020 UWMP\BOD Memo\BOD Memo re EKI Consulting Agree 09-00.doc

**RECOMMENDED ACTION:** Authorize General Manager to enter into a Consulting Agreement with EKI Environment and Water, Inc. for Preparation of the 2020 Urban Water Management Plan Update

**FINANCIAL IMPACT:** \$50,000 in FY 20/21 Budget

Urban water suppliers are required to prepare Urban Water Management Plans (UWMP) to support their long-term water resource planning and to ensure that adequate water supplies are available to meet existing and future water demands. The District is defined as an urban water supplier due to the fact that we provide more than 3,000 acre-feet of water per year to our customers and have more than 3,000 connections (This only applies to the Novato Service area). This update is required every five years and the next UWMP update is due for submittal to the Department of Water Resources by June 30, 2021.

In November 2019, the Board authorized a letter agreement with the City of Santa Rosa to hire EKI Environment and Water, Inc. (EKI), to update the demand analysis and water conservation measures for the 2020 UWMP for all water contractors in the Sonoma Marin Saving Water Partnership. EKI staff from their Burlingame, CA office are currently working to perform this work on behalf of the District. Leveraging this current demand analysis and conservation work along with their involvement in the UWMP Guidebook development, they are ideally suited to perform the preparation of the District's 2020 UWMP update.

Attached is a draft agreement with scope of work (Attachment 1), for EKI to prepare the 2020 UWMP Update. This agreement includes but is not limited to coordination with District staff, updating required components of the UWMP including the Water Shortage Contingency Plan (WSCP) and yearly water supply assessments, writing of the UWMP sections, presenting the UWMP at stakeholder workshop, and final submittal to the California State Department of Water Resources.

Recommendation

Board authorize General Manager to execute a Consulting Agreement with EKI Environment and Water, Inc. for Preparation of the 2020 Urban Water Management Plan Update the amount of \$50,000.



## DRAFT AGREEMENT FOR CONSULTING SERVICES

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

**WHEREAS**, Consultant is a duly qualified consulting firm, experienced in the development and preparation of Urban Water Management Plans.

**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 miscellaneous environmental consulting services.

**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 services to be provided in this agreement shall be that specified in Scope in Attachment A of this agreement.
  - b. The fee for the work shall utilize the fee schedule included in Attachment A of this agreement and shall not exceed \$50,000 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. Not Used.
  - 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 June 30, 2021 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: Ryan Grisso

Consultant:  
EKI Environment & Water  
577 Airport Blvd., Suite 500  
Burlingame, CA 94010  
Attention: Anona Dutton

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. Consultant shall have the right to terminate this agreement upon 14 days written notice to NMWD if NMWD is in breach of a material term of this agreement.



**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 / **\$2,000,000** annual aggregate.

## 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.

**19. THIRD PARTIES:** Nothing contained in this Agreement shall create a contractual relationship with, or a cause of action in favor of, a third party against either NMWD or Consultant. Consultant's Services hereunder are being performed solely for the benefit of NMWD.

**NORTH MARIN WATER DISTRICT  
"NMWD"**

Dated: \_\_\_\_\_

\_\_\_\_\_  
Drew McIntyre,  
General Manager / Acting Chief Engineer

**EKI ENVIRONMENT & WATER, INC.  
"CONSULTANT"**

Dated: \_\_\_\_\_

\_\_\_\_\_  
Anona Dutton, Vice President

8 September 2020

Ryan Grisso  
Water Conservation Coordinator  
North Marin Water District  
999 Rush Creek Place  
Novato, CA 94945

Subject: 2020 Urban Water Management Plan Update for North Marin Water District (EKI C0-077)

Dear Mr. Grisso:

EKI Environment & Water, Inc. (EKI) is pleased to submit this proposal to North Marin Water District (NMWD or District) for Professional Services to prepare the 2020 Urban Water Management Plan (2020 UWMP).

#### **SCOPE OF WORK**

The scope of work includes preparation of a 2020 UWMP as described below.

##### **Task 1 – Project Management and Coordination**

Task 1 consists of initial preparatory work to set up the project, as well as continued management throughout the duration of the project.

##### **Subtask 1.1 – Kick-off and Data Needs Meeting**

Specific information will be required for the 2020 UWMP regarding water demands and supplies, coordination efforts, water conservation, and compliance with the Water Conservation Act of 2009 (Senate Bill X7-7 [SBX7-7]). Prior to the kick-off meeting, EKI will review the District's 2015 UWMP with respect to relevant changes and updates in the UWMP Act and DWR guidance. EKI will provide the District with a tabular summary of the additional data and information needs and will work with District staff to identify when the relevant information is likely to become available. The following tasks assume that the requested data will be provided by the District in a timely manner, consistent with the agreed-upon project schedule.

At the kick-off meeting (one of the three coordination meetings proposed herein), EKI and District staff will discuss UWMP requirements, project goals, opportunities, constraints, information needs, roles, responsibilities, schedule, and expectations. It is assumed that this meeting and subsequent workshops will be conducted remotely using teleconference tools.

##### **Subtask 1.2 – Project Management**

EKI will provide project management services to the District throughout the UWMP development process. This task includes coordination and communications with District staff and general consultation and technical project management services by EKI, including the preparation of invoices, coordination of staff, and progress reports. It is anticipated that regular, brief conference calls with the District will also occur on an as-needed basis throughout the duration of the project.

EKI will prepare project schedule that will include: (1) a timeline for District staff to submit data; and (2) a timeline for the preparation of the 2020 UWMP, including project milestones. All project work is currently anticipated to



be completed comfortably in advance of the DWR submittal deadline of July 1, 2021.

#### **Task 1 Deliverables:**

- Project kick-off meeting, with agenda and meeting notes
- Data request
- Task-based project schedule, updated as needed
- Monthly invoices and task-based progress status reports

#### **Task 2 – Prepare Water Supply and Demand Assessment**

This task consists of collecting and reviewing pertinent information needed to prepare the 2020 UWMP and summarizing the key results for presentation to District staff in a working review meeting.

##### **Subtask 2.1 Water System Description**

Based on information provided or approved by the District, the characteristics of the District's water service area including the water system, average rainfall, average temperature, demographics, water use sectors, and service area will be updated. This task assumes that EKI can largely build from the information and format included in the 2015 UWMP and the 2018 Novato Water System Master Plan Update (dated September 2019).

##### **Subtask 2.2 Current and Future Population Estimates**

We have assumed that the 2020 UWMP population projections will be those used to support the water demand projections included in the *2020 UWMP Water Demand Analysis and Water Conservation Measures Update for the Retail Agencies of the SMSWP* project.

##### **Subtask 2.3 Water Supply and Reliability Estimates**

The District's water supply (local and purchased surface water, and recycled water) will be analyzed in five-year increments for the next 25 years for both normal conditions and an extended five-year drought period. To the extent appropriate, the 2020 UWMP will incorporate information regarding the source, nature and projected availability of the District's current water supply based upon information provided by the District, SCWA, and the Santa Rosa Plain GSA.

The 2020 UWMP will also discuss any potential future water supplies considered by the District to be viable (e.g., expansion of recycled water, groundwater banking, etc.) and supply reliability and/or constraints of the District's existing allocation from the SCWA.

##### **Subtask 2.4 Current and Future Water Demand Estimates**

EKI will incorporate the demand projections developed as part of the *2020 UWMP Water Demand Analysis and Water Conservation Measures Update for the Retail Agencies of the SMSWP* project into the 2020 UWMP. Current and future water demands will be presented by customer classes, including distribution system losses, in five-year increments through 2045.

##### **Subtask 2.5 Senate Bill x-7 Per-Capita Water Usage Analysis**

The current and projected water demands will be compared to the SBX7-7 baseline and targets. The DWR Population tool will be used to estimate 2020 population. We have assumed based on recent water use, that limited additional analysis will be required.

##### **Subtask 2.6 Evaluation of Supply Versus Demand**

EKI will compare the District's projected water supply to projected water demand in five-year increments for the next 25 years, for normal years and for an extended five-year drought period. To the extent that there are



significant shortfalls or uncertainties identified, EKI will bring these issues to the District's attention so that they can be addressed prior to drafting the Administrative Draft UWMP.

#### **Subtask 2.7 Conduct the District Review Workshop #1**

Review Workshop #1 will include a presentation of the information identified above and will consist of an approximately one- to two-hour teleconference meeting with appropriate District staff. During this Workshop EKI will obtain input regarding the presentation of initial findings and guidance from the District on how to include the information into the Administrative Draft UWMP.

#### **Task 2 Deliverables:**

- Draft description of current and future water projects
- Draft supply projections including descriptions of methodology and water source quality, availability, and reliability
- Incorporation of demand projections developed under the joint SMSWP effort
- Draft supply versus demand projection comparisons
- Review Workshop #1 agenda and minutes

#### **Task 3 – Water Shortage Contingency Planning and Incorporation of Water Conservation Information**

Task 3 includes incorporating information regarding the District's water conservation measures from the *2020 UWMP Water Demand Analysis and Water Conservation Measures Update for the Retail Agencies of the SMSWP* project, as well as information regarding water shortage contingency planning.

##### **Task 3.1 Evaluation of Historic, Current and Projected Future Water Conservation**

EKI will incorporate the water conservation information developed as part of the *2020 UWMP Water Demand Analysis and Water Conservation Measures Update for the Retail Agencies of the SMSWP* project into the 2020 UWMP, which is to be developed based on the revised Demand Management Measure (DMM) framework required per Assembly Bill 2067 and CWC §10631.

##### **Task 3.2 Water Shortage Contingency Planning**

EKI will work with the District to develop an updated Water Shortage Contingency Plan (WSCP) that will benefit from lessons learned during the recent droughts, assess options to reduce water demands under projected dry-year scenarios, and meet the additional requirements under the new State legislation. As part of this task, EKI will update the District's existing WSCP for inclusion in the 2020 UWMP to reflect:

- The new required shortage stages (i.e., up to 10%, 20%, 30%, 40%, and over 50% cutbacks);
- The recent water conservation efforts by the District and its customers (i.e., demand hardening);
- The local public policy interest in how water shortages are allocated;
- The mechanisms by which the necessary cutbacks can be realized (response actions);
- The potential impacts of the projected cutbacks on District revenues and staffing and the local economy, based on information provided by the District; and
- The lead time required to implement specific actions during a water shortage (e.g., adding additional meter readers in order to move to more frequent billing).

This task will also include documenting the District's planned procedures for conducting an annual water supply and demand assessment, including identification of the data sources used and a written decision making process that the District will use each year to determine its water supply reliability. EKI has assumed that common language will be provided through SCWA to address the new drought risk assessment (DRA) requirement to assess water supply reliability (or vulnerability) for a period of drought lasting five consecutive water years as well as to support annual water supply and demand assessment process.



The updated WSCP is required to include a seismic risk assessment and mitigation plan to assess the vulnerability of each of the various facilities of a water system and mitigate those vulnerabilities. EKI assumes that information is readily available (e.g., in the District's existing hazard mitigation plan) and will summarize existing information provided by District staff in the seismic risk assessment and mitigation plan.

### **Task 3.3 Conduct the District Review Workshop #2**

Review Workshop #2 will include a presentation of the information identified above and will consist of a one- to two-hour teleconference meeting with all appropriate stakeholders as identified by the District. During this Workshop EKI will obtain input from the District and stakeholders regarding the content and potential effectiveness of the current WSCP and how best to include the information into the Administrative Draft UWMP.

#### **Task 3 Deliverables:**

- Incorporation of conservation (DMM) summary developed under the joint SMSWP effort
- Updated WSCP
- Review Workshop #2 agenda and minutes

### **Task 4 – Prepare and Submit Administrative Draft and Final 2020 UWMP**

Task 4 includes the preparation of the written UWMP documents for the District and public review, incorporation of feedback, and subsequent preparation and submission of a final 2020 UWMP.

#### **Subtask 4.1 Administrative Draft UWMP and Public Draft UWMP**

Based upon the results of Tasks 1 through 3, EKI will prepare an Administrative Draft UWMP that will be provided to the District staff in electronic format for a two-week review period. EKI will incorporate the District's comments as appropriate and produce a Public Draft UWMP.

EKI will provide two (2) paper copies of the Public Draft UWMP to be sent to regional agencies for comment, and four (4) bound paper copies and one electronic PDF version of the Public Draft UWMP for the District. Following a 30-day review period, EKI will communicate with key District staff to discuss comments received by the District as a result of external review and to agree on an approach to modify the Public Draft UWMP.

#### **Subtask 4.2 Preparation and Filing of Final UWMP**

As directed by the District, EKI will incorporate comments received on the Public Draft UWMP and at the public hearing into a Final 2020 UWMP, as well as the District Board of Director's resolution to adopt the 2020 UWMP.

Within 30 days of Board adoption, EKI will forward the Final 2020 UWMP on the District's behalf to DWR, the California State Library, and the Sonoma County Library. The final 2020 UWMP will be delivered, including supporting documentation in the following formats: Four (4) paper copies of the final 2020 UWMP; Electronic file in Adobe PDF format; and Electronic files in Word and Excel formats.

#### **Task 4 Deliverables:**

- Administrative Draft UWMP (1 electronic copy)
- Public Draft UWMP (4 hard copies for the District and 2 additional hard copies to be sent to relevant regional agencies for review, 1 electronic [PDF] copy)
- Final UWMP (4 hard copies, 2 electronic copies [PDF and Word versions])
- Final UWMP submittal to DWR

### **Task 5 – Public Outreach**

EKI will support the District in key aspects of the public outreach elements of the UWMP. This support will include:

- Drafting the coordination letters and notices required by CWC Sections 10621(b); Section 10620(d)(2);



and Section 10642; and

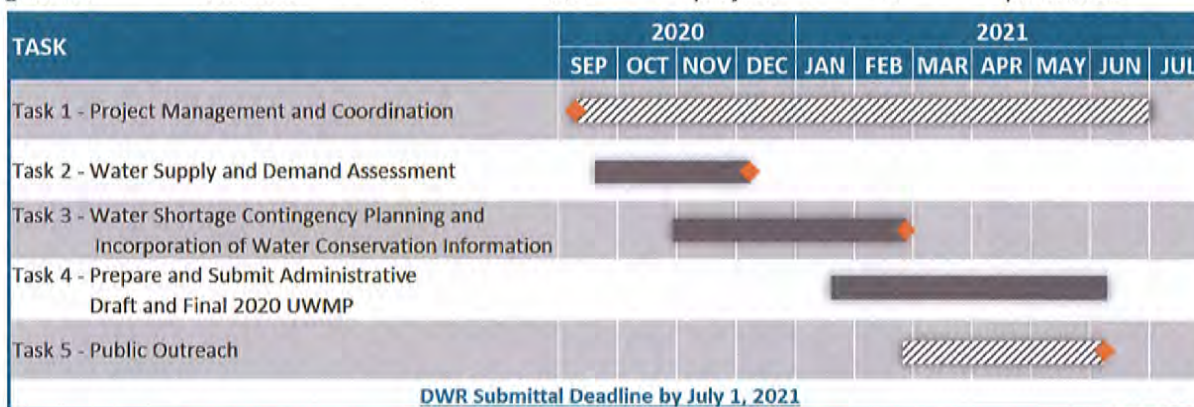
- Attending and presenting at one (1) District Board of Directors meeting.

#### Task 5 Deliverables:

- Draft and final versions of outreach letters, notices and other materials
- Meeting agendas and minutes
- Presentation materials (e.g., handouts and presentations)

### PROJECT SCHEDULE

EKI is prepared to start work on this project immediately upon authorization to proceed. We propose to work with the District to complete the project by the DWR-required submittal date of July 1, 2021. We will inform the District of any issues that arise that may affect the schedule for completion or impact the anticipated level of effort. A general schedule for the project is presented below.



### COMPENSATION FOR CONSULTING SERVICES

Inasmuch as the exact level of effort to complete the proposed Scope of Work cannot be identified at this time, we propose that compensation for consulting services by EKI be on a time and expense reimbursement basis in accordance with the EKI Schedule of Charges, dated 1 January 2020 (attached). Based on the proposed Scope of Work described above, we propose the following budget, which will not be exceeded without additional authorization from the District.

#### Budget Estimate

Task	Budget Estimate
Task 1 - Project Management and Coordination	\$3,500
Task 2 - Water Supply and Demand Assessment	\$18,000
Task 3 - Water Shortage Contingency Planning and Incorporation of Water Conservation Information	\$14,000
Task 4 - Prepare and Submit Administrative Draft and Final 2020 UWMP	\$12,000
Task 5 - Public Outreach	\$2,500
<b>TOTAL</b>	<b>\$50,000</b>

We look forward to working with you on this important project. Please call the undersigned at (650) 292-9100 if you have any questions.

Very truly yours,

EKI ENVIRONMENT & WATER, INC.

A handwritten signature in blue ink, appearing to read "Anona Dutton".

Anona Dutton, P.G., C.Hg.  
Vice President

EKI ENVIRONMENT & WATER, INC.

A handwritten signature in blue ink, appearing to read "Kathryn L. Wuehling".

Kathryn L. Wuehling  
Project Manager

#### Attachments

- A. 2020 EKI Schedule of Charges



Client/Address: North Marin Water District  
999 Rush Creek Place  
Novato, CA 94945



Proposal/Agreement Date: 8 September 2020

EKI Proposal # C0-077

**SCHEDULE OF CHARGES FOR EKI ENVIRONMENT & WATER, INC.**

**1 January 2020**

<u>Personnel Classification</u>	<u>Hourly Rate</u>
Officer and Chief Engineer-Scientist	290
Principal Engineer-Scientist	280
Supervising I, Engineer-Scientist	270
Supervising II, Engineer-Scientist	260
Senior I, Engineer-Scientist	250
Senior II, Engineer-Scientist	240
Associate I, Engineer-Scientist	230
Associate II, Engineer-Scientist	215
Engineer-Scientist, Grade 1	200
Engineer-Scientist, Grade 2	188
Engineer-Scientist, Grade 3	173
Engineer-Scientist, Grade 4	154
Engineer-Scientist, Grade 5	135
Engineer-Scientist, Grade 6	119
Technician	109
Senior GIS Analyst	140
CADD Operator / GIS Analyst	124
Senior Administrative Assistant	137
Administrative Assistant	108
Secretary	89

**Direct Expenses**

Reimbursement for direct expenses, as listed below, incurred in connection with the work will be at cost plus fifteen percent (15%) for items such as:

- a. Maps, photographs, reproductions, printing, equipment rental, and special supplies related to the work.
- b. Consultants, soils engineers, surveyors, drillers, laboratories, and contractors.
- c. Rented vehicles, local public transportation and taxis, travel and subsistence.
- d. Special fees, insurance, permits, and licenses applicable to the work.
- e. Outside computer processing, computation, and proprietary programs purchased for the work.

A Communication charge for e-mail access, web conferencing, cellphone calls, messaging and data access, file sharing, local and long distance telephone calls and conferences, facsimile transmittals, standard delivery U.S. postage, and incidental in-house copying will be charged at a rate of 4% of labor charges. Large volume copying of project documents, e.g., bound reports for distribution or project-specific reference files, will be charged as a project expense as described above.

Reimbursement for company-owned automobiles, except trucks and four-wheel drive vehicles, used in connection with the work will be at the rate of sixty cents (\$0.60) per mile. The rate for company-owned trucks and four-wheel drive vehicles will be seventy-five cents (\$0.75) per mile. There will be an additional charge of thirty dollars (\$30.00) per day for vehicles used for field work. Reimbursement for use of personal vehicles will be at the federally allowed rate plus fifteen percent (15%).

CADD Computer time will be charged at twenty dollars (\$20.00) per hour. In-house material and equipment charges will be in accordance with the current rate schedule or special quotation. Excise taxes, if any, will be added as a direct expense.

Rate for professional staff for legal proceedings or as expert witnesses will be at a rate of one and one-half times the Hourly Rates specified above.

The foregoing Schedule of Charges is incorporated into the Agreement for the Services of EKI Environment & Water, Inc. and may be updated annually.

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## MEMORANDUM

To: Board of Directors

September 11, 2020

From: Julie Blue, Auditor/Controller JB

Subj: Proposal for West Marin Water Rate Study

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**RECOMMENDED ACTION:** Authorize the General Manager to execute an agreement with Hildebrand Consulting to conduct a West Marin Water Rate Study

**FINANCIAL IMPACT:** Not to exceed \$38,850 (\$3,850 over approved \$35,000 FY21 budget)

**Background**

West Marin customers are currently billed under a water rate structure comprised of multiple rates categorized by commercial, residential, elevation zones, and seasons. At the March 3, 2020 board meeting a water rate study for the Novato and Recycled Water systems was approved by the Board of Directors. The study was done by Mark Hildebrand of Hildebrand Consulting and the thorough process involved contributions by District staff, the Board of Directors, and the Novato service area customers. For the West Marin service area a similar rate study needs to be done in order to set and validate water rates, ensure legal compliance and to confirm costs are appropriately apportioned between customers.

**Objective**

The objective of the Water Rate Study is to develop water rates that are fair and equitable and to ensure that the District's water rates comply with California Constitution Article XIII D, Section 6 (commonly referred to as Proposition 218). In order to maintain compliance, the rate structure should generate revenue from each class of customers in proportion to the cost to serve each customer.

**Consultant Selection**

Hildebrand Consulting (Oakland, CA) has provided water rate setting and related services to public agencies throughout northern California. Mark Hildebrand, the sole proprietor of Hildebrand Consulting, provided professional expertise during the course of the rate study for the District's Novato and Recycled Water service areas. During the process he communicated clearly with Staff, the Board, and members of the public, and provided a thorough and substantive water rate study report.

## **Scope of Work**

Hildebrand's scope of work is included as Attachment 1. The scope of work is divided into four tasks listed below:

1. Rate study kickoff meeting – data collection and review.
2. Financial plan – develop a financial management plan and model.
3. Cost of service analysis and rate design.
4. Final deliverables and presentations – present draft and finalize study.

The total fee for these tasks is estimated at a maximum of \$38,850. A budget of \$35,000 was approved in the FY 2020/21 budget. This proposal is over budget due to an increase in the number of meetings scheduled from the original estimate. These meetings were added to provide ample opportunity for community input and involvement. West Marin's overall operating budget can absorb the discrepancy and the cash reserves are sufficiently funded at the time of this memo.

## **Schedule**

The tentative schedule is as follows:

- |   |                              |
|---|------------------------------|
| 1. Rate study kickoff meeting                                       | Late Sept/Early October 2020 |
| 2. Data collection & review   | October 2020                 |
| 3. Financial planning workshop (Staff)                              | November 2020                |
| 4. Cost of service (COS) & rate design meeting No. 1 (Staff)        | December 2020                |
| 5. COS & rate design meeting No. 2 (Board Ad-Hoc Committee)         | January 2021                 |
| 6. COS & rate design meeting No. 3 (Board Ad-Hoc Committee)         | February 2021                |
| 7. Special Board Meeting Rate Study workshop No. 1 (Board & Public) | March 2021                   |
| 8. Special Board Meeting Rate Study workshop No. 2 (Board & Public) | March 2021                   |
| 9. Regular Board meeting - Final rate study report presentation     | April 2021                   |
| 10. Public hearing to enact new water rates                         | June 22, 2021                |

In order to create focused input from the Board in a timely manner a Water Rate Study Ad-Hoc Committee was formed in March 2019. This committee is comprised of two board members (Director Joly and Director Grossi) and is available on an as needed basis for discussions related to the water rate study, specifically for internal meetings No. 2 and No 3. as listed in the above schedule.

**RECOMMENDATION:**

Authorize the General Manger to execute an agreement between Hildebrand Consulting, and the District for a Water Rate Study for West Marin with a not to exceed limit of \$38,850.





**HILDEBRAND**  
CONSULTING

Julie Blue, Auditor-Controller  
North Marin Water District  
999 Rush Creek Place  
Novato, CA 94945

September 4, 2020

SENT VIA EMAIL ONLY

**Subject: Proposal for the North Marin Water District 2021 West Marin Water Rate Study**

Dear Ms. Blue,

In response to your request, Hildebrand Consulting, LLC, is pleased to submit this proposal to the North Marin Water District (NMWD or District) to conduct a Water Rate Study for the West Marin water service area. The primary Study described herein will develop equitable water rates to achieve full cost recovery of annual water system expenses associated with the District's operations. The financial plan will identify annual water rate revenue needs with consideration of operating and maintenance costs, debt service obligations, capital program needs, and financial reserve policies. The proposed rate structure will be based on a clear and equitable cost allocation methodology with a cost basis that meets both the requirements of California state law (namely Proposition 218) and NMWD policy objectives.

Mark Hildebrand brings 19 years of broad experience in California as a utility rate and management consultant to municipal utilities. He has performed hundreds of studies covering a diverse range of rate setting, cost allocation, and financial planning to more than 50 clients, including North Marin Water District itself. As an independent consultant, Mark Hildebrand offers a distinctive value proposition: he will personally be directly engaged in all facets of the project, including all meetings, communications, financial models, and deliverables.

Please let me know if you have any questions regarding this proposal. I appreciate the opportunity to be of service to the NMWD for this study.

Sincerely,

Mark Hildebrand  
Hildebrand Consulting, LLC,  
[mhildebrand@hildco.com](mailto:mhildebrand@hildco.com)  
510.316.0621 (m)



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## 1. PROJECT UNDERSTANDING AND APPROACH

The District provides water service to approximately 1,800 residents in the Point Reyes service area of West Marin County through over 780 service connections. The District also provides water service to approximately 61,000 residents in the greater Novato area through over 20,000 potable water service connections and 90 recycled water connections and sewer service to limited to the water customers located in the Oceana Marin service area of West Marin County. Hildebrand Consulting recently completed a comprehensive rate study for the Novato service area. The District was formed by voter approval in April 1948 pursuant to provisions of the County Water District Law and is governed by a five-member Board of Directors, elected by division from within the District's service area.

The primary scope of this study is a rate study for the West Marin water service area, which comprises less than 5% of the District's customer base. The West Marin water supply comes from groundwater wells located adjacent to Lagunitas Creek behind the Coast Guard Housing facility in Point Reyes Station. This supply is generally of excellent quality, but it requires treatment to remove iron and manganese which can affect the color of the water and result in staining. It is anticipated that this study will benefit from efficiencies from the fact that Hildebrand Consulting recently completed a rate study for the Novato Water service area and is familiar with the District's finances.

### CURRENT WEST MARIN RATES

The District's current water rate structure includes a Service Charge and a Commodity Charge. The Service Charge is a flat bimonthly charge based on the size of the meter serving a property and is intended to recover the District's costs of billing, customer service, meter replacement and repair, meter reading, and a portion of general administrative overhead, debt service and depreciation expense. The Commodity Charge is a variable per-unit charge and is intended to recover the cost of water supply, pumping, treatment and distribution. The residential Commodity Charge consists of three inclining tiers, while non-residential customers pay a uniform Commodity Charge which is higher during the peak June through October season. The District also imposes an elevation Zone Charge for the cost of pumping water to customers that are located in higher elevations.

### PURPOSE OF THE STUDY

This study will review the West Marin current water rate structure and develop rate recommendations consistent with California's legal requirements and the District's policy objectives. We will work with NMWD staff to develop and propose rates that retain the same basic structure as the current rates, within the parameters of applicable law. We also understand the importance of retaining rates that are relatively simple to administer.

The proposed rates will conform to cost of service standards established by the American Water Works Association (AWWA) and with the substantive requirements defined by California Constitution Article XIII D, section 6 (commonly referred to as Proposition 218). Ultimately, these cost of service principles proportionately distribute the cost of providing service to the various customer classes in accordance with the way each class uses the water system and the corresponding costs that their use generates. As part of this study, we will review the FY 2019/20 actuals, FY 2020/21 budget, and other financial forecasts to develop a financial plan.

### **West Marin Financial Plan**

Hildebrand Consulting uses a financial planning approach that leverages tools that will essentially recreate the financial structure of the West Marin water service area enterprise. In addition to capturing changes to operating costs and revenues, our process includes an interactive evaluation of the proposed capital spending budgets, and the rate impacts of alternative projects, costs, timing, and funding strategies. Our capital planning tool allows us to evaluate the current and recommended investments for improvements as well as renewal and replacement of utility systems and the financial impacts to the rate payers.

### **West Marin Cost of Service and Rate Design**

As previously discussed, we will work within the basic framework of the District's current rate structure to apply Prop 218-compliant cost-of-service methodologies based upon available data, legal requirements, demand and usage characteristics, and District policy objectives. We will customize the cost-of-service analysis to employ the identified methodologies and concepts best suited for NMWD.

### **Study Documentation and Rate Adoption**

The results of the study will be documented in a report and the proposed rates will be presented to the District Board for adoption. Hildebrand Consulting will work with the District to ensure that Proposition 218 rate adoption processes are followed.

## 2. PROPOSED SCOPE OF WORK

The following scope of work is based on our understanding of the NMWD's needs from our recent work with the District as well as our experience in conducting similar studies. Hildebrand Consulting will prepare a new 10-year financial plan for the West Marin water service area enterprise which will yield recommendations for a 5-year water rate schedule (understanding that the District may choose to adopt fewer years in the near-term). The financial plan will identify annual rate revenue needs with consideration of operating and maintenance costs, debt service obligations, and capital program needs, with consideration of tax revenues, other non-rate revenues, financial reserves, and financial reserve policies.

### Task 1. Study Kickoff

To initialize the study, we will submit a data request to the NMWD. Once all data has been received, we will review it in detail. This will include (but is not limited to) a review of historical Financial Statements, water purchase costs, capital spending forecasts for each system, historical statements of revenue and expense, current year budgets, customer counts and classes, and historical usage data. Our review of the data will be done to develop a strong understanding of any specific regulatory requirements facing the West Marin water service area, any existing financial requirements (such as bond covenants), any other contractual requirements, and operational/capital improvement drivers.

Shortly thereafter, we will conduct a Project Kickoff conference call with staff to:

- ✓ Discuss key issues, roles and responsibilities
- ✓ Confirm study objectives and further explore project drivers such as revenue stability
- ✓ Confirm data requirements and discuss the data already received
- ✓ Finalize the project schedule, including key milestone dates and deliverables

Follow-up calls or visits with staff will be made to ensure full understanding of all data received.

<b>Task 1 Meeting:</b>	Kickoff Conference Call
<b>Task 1 Deliverable:</b>	Data request list

### Task 2. Financial Plan

In this task, Hildebrand Consulting will use a revenue sufficiency and financial planning model to develop a financial management plan for the West Marin water service area. The model will be used to develop a 10-year financial management plan and be used to develop recommendations for (up to) a 5-year rate schedule (starting in FY 2020/21).

We will use our existing Novato Service Area financial planning model to directly load the West Marin water service area budgets (for seamless updates) and project annual revenue and fee adjustments requirements. The financial

plan will consider projected changes to operating expenses, alternative spending levels, operating reserves targets, debt service coverage ratios and other financial policies/goals that affect the revenue requirements of the funds. It will also consider historical operating expenses, growth projections and other trends that paint a complete financial picture and provide for informed decision-making. Our model's dashboard clearly displays key scenarios and assumptions in a format that is easy to understand. This function, coupled with our ability to make real-time changes to the model, is particularly useful when engaging in interactive planning meetings.

Our team will work directly with NMWD staff to understand the drivers for the Financial Plan and consider uncertainties, such as future water purchase costs and water supply/demand trends.

Our financial planning model provides a valuable capital planning tool which we will use to review the West Marin water service area capital improvement program and evaluate the impacts of alternative projects, costs, timing, and funding sources. We will work collaboratively with the NMWD engineering resources on capital and operational budgetary expenditures for financial model inputs.

If warranted, we will examine the NMWD's use of debt financing for capital improvements and assess the impact of current levels of debt financing, as well as building a financing scenario to support the West Marin water service area in maintaining a proper balance for debt coverage and rate stabilization over the study period. We will also discuss and consider a mechanism for automatically adjusting water rates to reflect the effects of inflation and/or changes in wholesale water supply costs as allowed by the Government Code. Decision will be made within the context of the District's Debt Management Policy (#47).

Closely related to this analysis is the examination of cash reserve policies. Adequate reserves are fundamental to achieving financial stability and can help in the avoidance of sudden or disruptive fee adjustments in the face of changes to operating or capital needs. We will leverage the policy decisions made during the Novato service area rate study to streamline the West Marin study.

<b>Task 2 Meetings:</b>	Financial Planning Workshop
<b>Task 2 Deliverable:</b>	Presentation materials

### Task 3. Cost of Service Analysis

The cost of service analysis allows for all the costs for the West Marin water service area to be functionalized and distributed to each customer class and rate component. We identify the most appropriate Prop 218-compliant cost-of-service methodologies based upon available data, legal requirements, industry standards, system configuration, service agreements, resources, customer base, demand and usage characteristics, local practice, and public policy objectives. We then customize the cost-of-service model to employ the identified methodologies and concepts best suited for the District's situation, using the Novato service area rate study as a guiding document (but also recognizing that the cost drivers for the two service areas are quite different).

We will conduct a survey of local and regional water rates that are charged utilities that are similar in size and scope as the West Marin water service area. Such surveys provide important context during workshops and during NMWD Board presentations.

Hildebrand Consulting will design the West Marin water service area water rates to help ensure compliance with Proposition 218. It is important to conduct periodic reviews of the cost nexus for utility rates, particularly within the context of ever-changing California case law. The rate structure will be evaluated in the context of fiscal stability, administrative ease, and/or public policy objectives relating to fixed cost recovery, economic development, and affordability, while ensuring a fair and equitable distribution of costs, and conformance to accepted industry practice, legal precedent, and terms of any service agreements. As part of this effort, we will be evaluating the distribution of costs between the fixed and variable components of the rate structure and will make recommendations that are consistent with your cost recovery objectives.

The revenue requirements determined in Task 2 (financial planning) for a “Test Year” (the first projected fiscal year) are linked to the cost of service and rate design modules, which calculates specific rates necessary for each customer class to generate the required revenues based upon proper allocation of costs and the specified rate structure, or rate structure alternatives.

Our observations and recommendations will be presented during a Cost of Service & Rate Design Workshop (one workshop with staff and one or two subsequent workshops with the Board’s Finance Subcommittee) and will be documented in the final report. These workshops are intended to engage District staff and Board members in the development of the study recommendations and in preparation for the presentation to the full Board.

<b>Task 3 Meeting:</b>	Cost of Service and Rate Design Staff Workshop Finance Subcommittee Meeting
<b>Task 3 Deliverables:</b>	Presentation materials Rate survey of regional utilities

#### Task 4. Final Deliverables and Presentations

Hildebrand Consulting will present draft and final study recommendations to the Ad Hoc Committee and the NMWD Board to consider the proposed financial strategy and associated water rate schedule. We are proposing two Ad Hoc Committee meetings and four NMWD Board meetings. The four meetings with the Board may be required because we typically need one or two meeting to receive feedback on draft recommendations, then another meeting to present the final recommendations and obtain direction for NMWD staff to mail the Proposition 218 notification and a final meeting for the Public Hearing. The first two Board meetings may be special meetings intended to allow for a longer format and encourage public participation.

Draft recommendations on the West Marin water rates will be documented in an administrative draft report. The administrative draft report will be discussed with staff and legal counsel (as necessary). The Rate Study Report will include:

- a. A brief physical description of the West Marin water service area
- b. Overview of recent financial operations



- c. A forecast of the necessary capital improvement program needs within the West Marin water service area during the planning period
- d. The proposed financial strategy and financial policy recommendations
- e. A transparent explanation of the basis for cost allocation to the respective customer classes
- f. A clear explanation of the cost-basis for the rate structures
- g. A 3 to 5-year schedule of proposed rates
- h. Assumptions and data behind the recommendations

We will provide guidance and advice to NMWD staff to assure compliance with the Proposition 218 notification process. We will provide rate schedule information that will be needed for inclusion in the notification letter for property owners, which will need to be finalized and mailed by NMWD staff at least 45 days prior to a public hearing.

<b>Task 4 Meetings:</b>	Two Ad Hoc Committee Meetings and four (4) NMWD Board Meetings (including the Prop 218 Public Hearing) Conference calls as needed to discuss the draft deliverables
<b>Task 4 Deliverables:</b>	Draft and Final Report

### 3. COST PROPOSAL & SCHEDULE

The following table estimates the amount of time that will be spent for each. Please note that Hildebrand Consulting does not charge for any direct or travel costs.

	<b>Hildebrand Consulting</b>	
	Hourly Rate:	<b>Cost by Task</b>
	<b>Hours</b>	
Task 1 Study Kickoff	11	\$2,310
Task 2 Financial Plan	42	\$8,820
Task 3 Cost of Service & Rate Design Analysis	56	\$11,760
Task 4 Final Deliverables and Presentations	76	\$15,960
<b>Total for West Marin Water Rate Study:</b>		<b>\$38,850</b>

It is understood that the schedule is intended to adopt any rate adjustments on July 1, 2021. An estimated project schedule has been provided below.

#### Milestone

Rate Study Kickoff Meeting  
 Data Collection & Review  
 Financial Planning Workshop (staff)  
 Cost of Service (COS) and Rate Design Meeting (staff)  
 COS and Rate Design Workshop #1 (Ad Hoc Committee)  
 COS and Rate Design Workshop #2 (Ad Hoc Committee)  
 Special Board Meeting Rate Study Review #1 (Board and Public)  
 Special Board Meeting Rate Study Review #2 (Board and Public)  
 Regular Board Meeting - Final Recommendations & 218 Notification approval  
 Public Hearing to enact new water rates

#### Estimated Date

Late Sept / Early October 2020  
 October 2020  
 November 2020  
 December 2020  
 January 2021  
 February 2021  
 March 2021  
 March 2021  
 April, 2021  
 June 22, 2021

## 4. FIRM QUALIFICATIONS

Mark Hildebrand is the sole proprietor of Hildebrand Consulting and brings over 18 years of experience as a consultant to municipal utilities and provides a broad range of financial, utility rate, and management consulting services. He has performed hundreds of studies covering a diverse range of cost allocation issues, financial planning, business case evaluations, and litigation avoidance to more than 50 clients, which include Ross Valley Sanitary District, the City of Santa Rosa, the City of Healdsburg and the City of Davis. He also has greater experience in preparing cost allocation plans for municipalities and utilities with multiple enterprises than many utility rate consultants. He has been published and frequently speaks on topics such as rate-setting under the requirements of Proposition 218, cost-of-service principles, cost allocation methodologies, emerging regulatory issues, consolidation studies, and strategic business planning.




Mark is dedicated to providing clients with an exceptional level of service and responsiveness, to developing creative yet practical solutions to client needs, and to broadening understanding and facilitating consensus on complex issues. His strengths in consensus building, clear communication, and his experience with utility rate-setting will be particularly valuable during this engagement. He has participated in authoring several industry guide books including AWWA's *Manual M1 Principles of Water Rates, Fees and Charges*, and AWWA's *Water Rates, Fees, and the Legal Environment*, and continues to actively serve on AWWA's Rates and Charges Committee, which established best practices for rate setting across the industry.

Please visit our respective websites at [hildebrandconsulting.com](http://hildebrandconsulting.com).

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## MEMORANDUM

To: Board of Directors

From: Drew McIntyre, General Manager/Acting Chief Engineer 

Subject: Renew Declaration of Local Emergency Related to COVID-19 Pandemic  
t:\gmibed nlisc 2020\renew covid emergency declaration #11 09\_15\_20.doc

September 11, 2020

**RECOMMENDED ACTION:** Approve continuation of the local emergency resulting from the COVID-19 pandemic as declared in District Resolution No. 20-07

**FINANCIAL IMPACT:** ~\$67,000 to-date (total fiscal impacts are currently unknown)

On March 4, 2020, the Governor of the State of California declared a State of Emergency as a result of the coronavirus (COVID-19) pandemic. On March 13, 2020, the President of the United States declared a National Emergency as a result of the threat of COVID-19.

On March 16, 2020, the County of Marin by Order of the Health Officer issued a Shelter in Place Order limiting the travel of all county residents and ordering county businesses to cease all non-essential activities and to take further actions as described in said Order through April 7, 2020. The order limits activity, travel and business functions to most essential needs.

On March 16, 2020 the General Manger, as the District's Emergency Manager activated the District's Emergency Operations Plan.

On March 19, 2020, Governor Newsom issued Executive Order N-33-20 ordering all individuals living in California to stay home at their place of residence, with certain exceptions for critical services and other qualifying exceptions. This shelter-in-place order has no specified termination date.

On March 31, 2020, the County of Marin by Order of the Health Officer issued an extended Shelter in Place Order through May 3, 2020 that is more restrictive than the original order. The new order continues to provide an exception for the operations and maintenance of "Essential Infrastructure," which includes, but is not limited to, water, wastewater, and recycled water service. Exemptions are also in place for Essential Government Functions, for certain "Minimum Basic Operations," for emergency management functions, for certain narrowly prescribed "Essential Business" functions, and for certain qualifying private construction, such as housing projects meeting low-income needs.

On April 29, 2020, Marin County and the other six Bay Area Public Health Officers issued a new order effective May 4, 2020 through May 31, 2020. Marin's public health order concerning use of face coverings does not have an end date and will remain in place until further notice. Under the May 4th Shelter-In-Place order, construction activities, certain businesses that operate primarily



outdoors, and some outdoor activities will be allowed to resume with specific conditions.

On May 15, 2020, Marin County issued a new order allowing a limited number of additional businesses and activities to resume operations subject to specified conditions. In particular, office spaces were allowed to resume operation on June 1, 2020 subject to strict compliance with specific Marin County requirements. This new order has no end date and is to remain in effect until rescinded or superseded.

On July 13, 2020 Governor Newsom issued a statewide order to dial back on recent loosening of restrictions due to a significant increase in the number of confirmed cases. As a result, various activities in Marin County were once again closed down, including: office space for non-essential operations, indoor malls, hair salons/barbershops and indoor seating at restaurants.

On April 7<sup>th</sup>, the Board of Directors approved Resolution No. 20-07 proclaiming the existence of a local emergency, granting the General Manager to take actions necessary for emergency response due to the COVID-19 pandemic until the State of Emergency is terminated.

Since April 21, 2020, the Board of Directors has, at every regular meeting, approved continuation of the local emergency resulting from the COVID-19 pandemic as declared in District Resolution No. 20-07.

District emergency planning has been aggressively implemented since March 16, 2020. Initially approximately 50% of the District's staff were physically separated as much as possible by rotating shifts and having some employees work from home, but all critical operations needed to maintain essential services continue. Relocation of additional staff back to the District buildings, and certain other projects and activities has occurred and the District is now operating with 85% of staff on-site or in the field. Walk-in customer service is still suspended. A summary of key emergency actions taken and current estimated costs is provided in Attachment 1.

As the COVID-19 emergency continues in our service area, Staff is requesting the Board find that there still exists a need to continue the State of Emergency reflected by Resolution No. 20-07.

**RECOMMENDED ACTION:**

Approve continuation of the local emergency resulting from the COVID-19 pandemic as declared in District Resolution No. 20-07.

## Emergency Actions Summary

### Emergency Operations Team Actions

- Water treatment plants have been closed to all non-essential staff and the public; expanded social distancing and safety measures for essential plant staff.
- Public lobby in the District Administration building has been closed and customers have been provided with alternative methods for communicating with District staff.
- Developed guidelines for social distancing in the office and in the field; distributed guidance to all employees and posted social distancing protocol at facility entrances.
- Developed an initial rotational schedule for operations and maintenance staff to reduce staffing density on-site and minimize the number of employees on duty while completing essential work. (This approach reduced productivity, but improved the likelihood of healthy backup staff.)
- During initial response, shifted ~50 percent of employees to rotating schedule and/or rotating work currently ~15% of employees are on full or partial temporary telework assignments.
- Procured additional District cell phones for field staff to have better access to District communications and direct contact with supervisors.
- Disinfected District vehicles and reconfigured vehicle assignments to accommodate single occupancy to allow for social distancing, including re-deployment of vehicles scheduled for auction
- Suspended discretionary water service turn-offs for the duration of the emergency declaration.
- Continuing coordination with local agency, county and state contracts to share information and implement best practices.
- Participating in ~~twice~~ weekly multi agency coordination calls through Marin County Office of Emergency Services (OES).
- Updating public website, messaging and social media posts as necessary including messages on suspension of walk-in services and water safety and reliability.
- Spring 2020 Waterline newsletter, direct mailed to all customers, included COVID-19 messaging with information on water safety and reliability.
- Posted magnetic signage on vehicles to inform public to respect distancing around crews.
- Issued guidance on face coverings in compliance with Centers for Disease Control and Prevention and County recommendations; revised to address April 29 County order generally requiring members of the public and workers to wear face coverings.
- Developed and rolled out an employee self-assessment screening questionnaire for use by any District employee or vendor prior to entering a District workspace; self-assessment questions are reviewed and updated as needed.
- Continue to procure necessary face coverings and personal protective equipment, including disposable masks, face covering and N95 equivalent masks.
- Tracking customer delinquency and comparing to last year to assess potential revenue impacts.

- Developing a living “lessons learned” document.
- Installed hand disinfecting stations at District facilities.
- Expanded use of District’s on-call requirements to ensure construction crew staff maintain their work “bubbles” to ensure adequate back-up staff availability.
- Increased janitorial services to include disinfection of frequently touched areas (door handles, knobs, etc.).
- Modified work spaces to improve physical separation between staff.
- Developed a COVID-19 Preparedness and Response Plan and provided training.
- Implemented a daily self-assessment reporting program for all staff reporting to work.

#### **General Manager Authorizations**

- Extended vacation accrual maximums from July 1, 2020 to September 30, 2020.
- Extended FY 2019/20 vision insurance reimbursement eligibility from July 1 to August 31, 2020.

## COVID Cost Summary

### PROCUREMENT EXPENSES

Vendor Purchases	Procurement Type	Total Purchase Order Amount	Date
Durkin Signs & Graphics	Magnetic "Social Distance" Signs	\$1,077	4/14/2020
Winzer Corporation	Surgical Masks (2,000)	\$3,751	4/15/2020
Boucher Law	COVID Protection Plan	\$3,250	5/26/2020
JCA Construction	Misc. Office Social Distancing Modifications	\$12,427	6/30/2020
Winzer Corporation	Surgical Masks (2,000)	\$1,573	7/6/2020
Novato Glass	Plexiglass	\$3,969	6/9/2020
<b>Total Procurement Amount To-Date</b>		<b>\$26,047</b>	

### Internal Labor Expenses

Increased on-call labor costs: ~\$29,000 thru August 31, 2020  
(~\$2,100/week)

Families First Coronavirus Response Act (FFCRA)  
Allows employees to take time off for COVID  
medical reasons and/or childcare. ~\$11,700 thru August 31, 2020.

Water Bill Delinquency Impacts 1.9%

Delinquency Rate  
(Financial implications are still under evaluation.)

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## MEMORANDUM

To: Board of Directors  
From: Pablo Ramudo, Water Quality Supervisor *PR*  
Subject: Fourth Quarter FY 19/20 – Water Quality Report  
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September 11, 2020

**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 2019-2020.

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 used as a source of drinking water beginning on April 9<sup>th</sup>. Water quality was monitored on a weekly basis for chemical and mineral components as well as microbiological activity.

Algae and plankton from the raw water intake were identified and enumerated although current staffing levels did not permit weekly analysis. Total algae numbers were moderate and typical for this time of year, with a few blooms recorded. Diversity was high with 14 genera recorded in appreciable numbers. Seven genera of cyanobacteria were observed, with 4 recorded in large numbers occurring in several blooms.

**Treatment Performance: Stafford Treatment Plant**

Total organic carbon (TOC) removal was 68-75% during the quarter, far above the 35% requirement of the Enhanced Surface Water Treatment Rule. Finished water TOC concentrations were at or below the District's goal of 2.0 mg/L for the entire quarter, ranging between 1.4 - 2.0 mg/L.

**Distribution System: Novato**

Of the 242 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 within standards.

## **POINT REYES SYSTEM**

### **Source Water:**

#### **Coast Guard Wells**

Raw water quality was generally good; constituents which are associated with salt water intrusion continued to fall from their peak in December until mid-June, then began to increase again. Chloride ranged from 22 mg/L to 63 mg/L, sodium ranged from 46 mg/L to 53 mg/L, and bromide ranged from 77 - 218 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 14 mg/L, sodium at 10 mg/L, and bromide at 67 ug/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.

Disinfection byproduct concentrations were moderate during the quarter.

## **NOVATO RECYCLED WATER**

### **Deer Island Recycled Water Facility**

The Deer Island recycled water facility did not produce any water during the quarter.



**NORTH MARIN  
WATER DISTRICT**

## North Marin Water District- 4th Quarter FY2019 / 2020

### Bacteriological Quality Monitoring

Novato: 242 routine samples collected, none were positive for coliform bacteria.

Point Reyes : 22 routine samples collected, none were positive for coliform bacteria.

### Chemical Quality Monitoring

Constituent	Units	Maximum Contaminant level	SCWA North Marin Aqueduct	Stafford Treatment Plant	Point Reyes Treatment Plant
Conductivity	umhos/cm	900 *	313	391	275
TDS	mg/L	500 *	193	243	166
Hardness	mg/L	-	124	108	115
Alkalinity	mg/L	-	141	68.6	108
Calcium	mg/L	-	24.0	19.9	19.8
Magnesium	mg/L	-	14.9	13.8	15.7
Copper	mg/L	1.0*	ND	ND	ND
Iron	mg/L	0.3*	ND	ND	ND
Manganese	mg/L	0.05 *	ND	0.0254	ND
Zinc	mg/L	5.0 *	ND	ND	ND
Sodium	mg/L	-	19.4	29.7	11.4
Chloride	mg/L	250 *	7.52	69.6	15.9
Sulfate	mg/L	250 *	14.3	12.0	7.96
Fluoride	mg/L	2.0 (1.4-2.4)	0.0917	0.100	0.0997
Nitrite as N	mg/L	1.0	ND	ND	ND
Nitrate as N	mg/L	10	0.158	0.0671	ND
pH	pH units	8.5 *	8.34	8.58	7.06
Turbidity	NTU	5	0.04	0.19	0.06
Color	PCU	15	<2.5	5	<2.5
Free Chlorine	mg/L	4.0	0.96	1.30	0.77
Total Chlorine	mg/L	4.0	1.11	1.50	0.86
Temperature	° C	-	20.1	20.0	15.6
Odor	TON	3	NA	NA	NA

\*Indicates secondary drinking water standard

ND = Not Detected  
NA = Not Analyzed

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## MEMORANDUM

To: Board of Directors  
From: Robert Clark, Operations / Maintenance Superintendent  
Subject: FY19/20 Operations / Maintenance 4<sup>th</sup> Quarter Report

September 11, 2020

X:\MAINT SUP\2020\BOD\Q4 19-20 O&amp;M Update.docx

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

Covid-19 coordination was top priority for safety during the period with focus on PPE procurement, safe distance work environment for office staff and a preparedness and response plan development. Staff also completed an outline response plan and equipment procurement to address PG&E's Public Safety Power Shutdowns.

Operations Summary

Operations activities and accomplishments during FY19/20 included completion of three capital improvement projects (Ferric tank replacement, STP Efficiency Study, PRE DBP-Study). Operations staff also completed just over 800 routine maintenance tasks throughout the year with just 5% unplanned tasks including rebuilding the STP internal booster station & water system.

Stafford Production

STP startup was delayed due to winter project completions, but began to produce water April 9, with Stafford Lake at 191'. Production for the spring and early summer resulted in 193 MG of treated water and combined with the fall production of 493 MG a total fiscal year production of 686 MG was achieved beating our goal of 650 MG.

Novato Water System Flows

- Novato production was up 13% for the period of April-June compared to the same period last year; average daily production was 7.6 MGD, with a peak day demand of 10.9 MGD. The increase was due much dryer conditions this year versus the heavy rain events last spring.
- Purchased recycled water for the period was 87.1 MG, up 29% 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 average daily production was 201,499 gallons per day with a peak day demand of 352,930 gallons – the same use for the period last year.



- Modifications to the location and replacement of the raw water and production water meters at the Point Reyes Treatment Plant have resulted in improved measurements of our water use.

### Oceana Marin

- During the period April-June, force main pump flow averaged 14,715 gallons per day with a peak day of 24,920 gallons, 16% lower than the same period last year. The discharge to the irrigation field was off during the period, leaving a freeboard of 9.0 feet at the end of June. Because of the COVID-19 restrictions water levels were kept higher to maintain an effective treatment process in the ponds.

### Water Quality Summary

With the reoccurring increase in salinity and bromide source water the continued use of modified operating parameters has helped to keep the disinfection byproducts (DBP's) lower in our West Marin water distribution system. Modified activities included the winter operation of the Coast Guard (CG) wells, increased use of the Gallagher well blending with the CG wells, modified disinfection treatment at the treatment plant and the PRE re-chlorination point and increased monitoring of the distribution system to aid in the mapping of the DBP precursors.

### Maintenance Summary

Accomplishments during FY19/20 include five facility improvement projects and 500 routine maintenance tasks with just under 15% unplanned tasks. Deployment began on the new asset management program that will improve our ability to track work efficiency and maintain asset history more thoroughly.

### Electrical / Mechanical

- 300 kw generator installation at the Stafford Treatment Plant
- Office Roof replacement
- Set Power at Crest PS
- Fire prevention tree and vegetation removal at tank sites in Novato and Pt. Reyes.
- Replace oven in Lab

### Cross-Connection Control (CCC)

- Staff completed a review of the CCC program documents and accepted the consultants review of the CCC program manual.
- The District currently has 2204 backflow devices with a goal to complete annual tests each

year. For various reasons, 446 tests were not completed this year. With the AMI project completed the meter boxes are requiring dig-outs to be performed by the tester which takes more time and staff was unable to complete the program on time.

- 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

- Spring weed control program was much lighter than in the past however we have seen more tree issues which required staff to perform more tree work than we usually have.
- Staff began several office modifications to address COVID-19 best practices. This included the installation of plexiglass on desks, rearranging furniture layouts to accommodate 6 feet of separation and wall construction to create standalone office spaces.

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## North Bay Watershed Association

Board Meeting Notice

### Sept 11th, 2020

Zoom call

### Next Meeting

Oct 2nd, 2020

Zoom

## Board Meeting Agenda

- 1. Call to Order/Introductions** 9:30 am  
*Jack Gibson, Chair*
- 2. Public Comment**
- 3. Approval of Agenda** 1 min.  
*Proposed Action: Approve*
- 4. Approval of June 5th Summary** 1 min.  
*Proposed Action: Approve*
- 5. Treasure's Report & Conference Refunds** 3 min.  
*Proposed Action: Accept*
- 6. Board Member Sharing** 9:45 am  
 Board members share items of interest.  
*Board Members*
- 7. 2020 Budget Revision Proposal** 10:00 am  
*Proposed Action: Approve*  
*Judy Kelly, ED*  
 Judy will review the proposal to make a one-time 20% reduction in dues for FY 2020/22 given the pandemic and natural disaster conditions.
- 8. West Yost Contract**  
*Proposed Actions: Approve*  
*Judy Kelly, ED*  
 Judy will review the key elements of the proposal and ask for approval for the new ED contract with West Yost Associates.
- 9. One Water Next Steps: Project Status** 10:30 am  
*Ken Schwarz, Horizon Water*  
 Ken will review the status of on-going work to expand and get more specific on how the North Bay can identify and respond to cooperative water and watershed opportunities across jurisdictions.
- 10. Farewell and Welcome** 11:00 am  
*Judy Kelly ED, Andy Rodgers incoming ED*  
 Judy will say her goodbyes to the Board and Andy Rodgers will make his introduction and update us on the North Bay 2020 fires.
- 11. Adjourn**

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**DISBURSEMENTS - DATED SEPTEMBER 3, 2020**

Date Prepared 9/1/20

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
*58038	US Bank Card	Water for Construction (\$486), Lockbox for Flag Pole (\$155), Zoom for Board Meetings (\$13), Labor Law Posters (2) (\$76), Porta Potty Rentals (\$866) (2 Months), Ethics Training Auditor/Controller (\$39), Craigslist-Posting for Associate/Assistant Engineer (\$150), Foxit Software (HR/Safety Mgr) (\$179) & USPS-Postage Stamps (\$59)	\$2,022.56
1	Agilent Technologies	Replacement Metals Analyzer (Lab)	61,013.66
2	Agins-Robertson, Bonnie	Novato "Toilet Rebate" Program	200.00
3	Alpha Analytical Labs	Lab Testing	1,035.00
4	Amazon/Genuine-Hardware	Thermometers (25) (\$277), Temporary Mail Slots for Lunchroom (\$32), iPhone Cases (2) (Maint & Lab) (\$56), Control Board for Gate (\$336), Radio Mics for Fleet (3) (\$303), Keyboard (\$72), Headset Cord (\$24), Wireless Mouse, Keyboard & Keyboard Tray (\$277), Bearing Hubs for Trailers (\$23), Headset (2) (\$376), Replacement Hard Drives for Back-ups (\$1,432), Social Distancing Stickers for Lobby Floor (\$33), Power Drive Belt (STP) (\$62), Intercom System for Reception Desk (\$69), Hanging Wall File Holder (\$38), Hand Sanitizer Packets (48) (\$12), Beverage Cooler (Construction) (\$254), Alcohol Sanitizing Wipes (2,000) (\$324), Ergonomic Keyboard (\$33), Earbuds w/mic (\$26) & Monitors (2) (\$260)	4,318.41
5		Vision Reimbursement	340.00
6	Arrow Benefits Group	August Dental Admin Fee	282.50
7	AT&T	August Internet Connection	96.30
8	AT&T	Telephone (\$66), Fax (\$85), Leased Lines (\$140) & Data (\$281)	573.38



Seq	Payable To	For	Amount
9	Automation Direct	Flow Meter (Old Ranch P/S)	1,039.43
10	Bearings & Hydraulics	Bearings for O.M. Aerator (2)	109.30
11	Bold & Polisner	July Legal Fees-Potter Valley Project-FERC (\$1,103) & General (\$2,790)	3,892.50
12	Chandrasekera, Carmela	Exp Reimb: Renewal of Professional Engineering License (Budget \$130)	115.00
13		Vision Reimbursement	215.00
14	Charles Custom Welding	Welding Services (Trumbull Pump Station)	580.00
15	Comcast	August Internet Connection	134.06
16	CWEA	Membership Renewal (Reischmann) (9/20-8/21) (Budget \$190)	192.00
17	Diesel Direct West	Diesel (501 gal) (\$1,594) & Gasoline (400 gal) (\$1,181)	2,774.76
18	Esta, Dana	Novato "Smart Irrigation Controller" Program	94.92
19	Evans, Scott	Novato "Smart Irrigation Controller" Program	210.00
20	Evoqua Water Technologies	Service on Deionization System (Lab)	342.20
21	Fishman Supply	Ear Plugs (400) & Safety Gloves (148) (\$274)	324.95
22	GHD	Prog Pymt#11: O.M. Treatment & Storage Pond Rehabilitation Design (Balance Remaining on Contract \$30,229)	5,009.00
23	Grainger	Gate Valves (2) (STP) (\$109), Electrical Gloves for E/M Shop (5) (\$311), Hoses for Equipment (\$409) & Miscellaneous Maintenance Parts & Supplies (\$69)	898.00
24	HERC Rentals	Mini-Excavator Rental (1 Month)	2,635.06
25	Hodgen, Mary Jo	Novato "Toilet Rebate" Program	200.00
26	Idexx Laboratories	Reference Cultures (Lab)	279.75
27	InfoSend	July Processing Fee for Water Bills (\$1,451), Postage (\$3,775) & July Monthly Support Fee (\$907)	6,132.63

Seq	Payable To	For	Amount
28	Kaiser Foundation Health Plan	DMV/DOT Physical (Breit)	115.00
29	Kauwe, Joseph	Exp Reimb: Car Charger for District Vehicle	38.14
30	Kiosk Creative	Website Translation Services-Shut Off Policy	175.00
31	Marks, Larry	Refund Overpayment on Closed Account	205.84
32	Maselli & Sons	Duct Work Parts for Lab	48.34
33	McLellan, WK	Misc Paving	17,351.90
34	McMaster-Carr Supply	Suction Water Hoses (40')	444.42
35	Mutual of Omaha	Sept Group Life Insurance Premium	975.65
36	Office Depot	Binders (6) (\$54) & Misc Office Supplies	70.33
37	Olive Street Landscape Architecture	Prog Pymt#2: Landscape Plans - PRE Tank 4A Project (Balance Remaining on Contract \$0)	1,020.00
38	Pace Supply	PVC Pipe (20) (\$64) & Pump Flange Part (Trumbull Pump Station) (\$141)	205.22
39	Pape Machinery	Bucket Cutting Edge for Loader (\$269) & Arm Rests ('09 JD Backhoe) (\$305)	574.65
40	Pollard Water	Parts to Remove Mud in Valves	70.58
41	Rader Excavating	Flagging Services for State Route 1 Pt. Reyes (3 Days)	3,892.08
42	Red Wing Shoe Store	Safety Boots (Hughes & Bynum)	391.28
43	Rotary Club of Novato-Sunrise	Annual Dues (McIntyre) (7/20-6/21) (Budget \$150)	162.00
44	Smith, Thomas	Novato "Toilet Rebate" Program	100.00
45	Solenis	Praestol 2515 (\$3,640) (40) & Praestol 279 (\$7,053) (STP)	10,693.20
46	Sonoma County Tree Experts	Misc Tree Work/Removal @ Front Office	2,160.00
47	Tamagno Green Products	Sludge Removal from STP (14 yds)	2,065.00
48	Thatcher of California	Ferric Chloride (17 tons)	10,787.09
49	Underground Service Alert	Regulatory Cost for 2019 California Underground Service Alert Tags (5,291)	2,510.28

Seq	Payable To	For	Amount
50	VWR International	Culture Controls (2) (\$91), Chlorite Standard, Optical Probe (STP) (\$789), Lauryl Tryptose Broth (\$79), Chlorine Reagents & Hydrochloric Acid (Lab) (\$66)	1,107.20
51	Waste Management	Green Waste Disposal	115.03
52	Winzer	Hardware for Auto Shop	678.34
53	WRA	Prog Pymt#10: Design Phase Services for the Lagunitas Creek Slope Stabilization Project (Balance Remaining on Contract \$24)	6,710.13
		<b>TOTAL DISBURSEMENTS</b>	<b><u>\$157,727.07</u></b>

The foregoing payroll and accounts payable vouchers totaling \$157,727.07 are hereby approved and authorized for payment.

  
Auditor-Controller

09/01/2020  
Date

  
General Manager

9/01/2020  
Date

# **DISBURSEMENTS - DATED SEPTEMBER 10, 2020**

Date Prepared 9/8/20

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 8/31/20	\$154,405.78
EFT*	Internal Revenue Service	Federal & FICA Taxes PPE 8/31/20	68,226.44
EFT*	State of California	State Taxes & SDI PPE 8/31/20	14,722.03
EFT*	CalPERS	Pension Contribution PPE 8/31/20	39,290.78
EFT*	CalPERS	Fees for GASB-68 Pension Reports & Schedules	700.00
1	Allquip Universal	Muffler & Parts ('13 Vac Excavator & Trailer)	592.95
2	Alpha Analytical Labs	Lab Testing	1,260.00
3	Arrow Benefits Group	August Dental Expense	7,061.28
4	Automation Direct	Analog Input Cards for Programmable Logic Controllers (10)	987.36
5	CDW-Government	Battery Back-up for Programmable Logic Controllers (4)	296.07
6	Charles Custom Welding	Welding Services (McPhail's Commercial Office)	1,160.00
7	DataTree	August Subscription to Parcel Data Info	100.00
8	Diesel Direct West	Diesel (441 gal) (\$1,405) & Gasoline (500 gal) (\$1,529)	2,934.84
9	Direct Line	September Telephone Answering Service	174.10
10	Ditch Witch West	Replacement Valve (\$479) & Vac Wand Handle (\$370) ('19 Ditch Witch)	849.27
11	Environmental Science Assoc	Prog Pymt#9: Gallagher EWP Stream Channel Repair & Restoration (Balance Remaining on Contract \$3,705)	3,609.63
12	Grainger	Headgear (10) (\$176), Stretch Wrap (2) (STP), Pipe Wrench & Long Tape Measure	287.07

Seq	Payable To	For	Amount
13	Hodgen, Mary Jo	Novato "Smart Irrigation Controller" Program	180.00
14	Ken Grady	Chlorine Monitor for Deer Island RWF w/ Submersible Probe	3,072.87
15	Lassus, Richard	Refund of Deposit/New Development/WC Restriction-Novato	1,000.00
16	Lincoln Life	Deferred Compensation PPE 8/31/20	8,315.56
17	County of Marin	Refund Duplicate Payment for Inv#13606 License Fee for Dillon Beach & Center Road Tank Weather Stations	500.00
18	McMaster-Carr Supply	Parts for Lab	46.62
19	Nationwide Retirement Solution	Deferred Compensation PPE 8/31/20	920.00
20	Nazarian, Bahram & Liliana	Novato "Washer Rebate" Program	50.00
21	Office Depot	Binders (6)	53.97
22	Pace Supply	Hydrant (\$245), Corp Stops (21) (\$435) & Valve (\$522)	1,202.59
23	Pape Machinery	Grease for Equipment (\$474) & Service Parts (09 Backhoe) (\$585)	1,058.51
24	PG&E	Electric Bill for District Apartment	19.61
25	Point Reyes Light	Legal Notice: Salinity Intrusion into Pt Reyes Well Supply (8/20/20)	81.00
26	Protection Engineering	Zinc Anodes (200)	5,689.74
27	Rader Excavating	Flagging Services for Scown Lane (7/29/20)	1,665.60
28	Recology Sonoma Marin	August Trash Removal	510.80
29	Scott Technology Group	Monthly Maintenance on Engineering Copier (8/21/20-9/20/20) (\$167) & Overage Charges on Savin Copier	186.32
30	Soiland	Asphalt Recycling (41 tons)	411.00
31	Sonoma County Tree Experts	Misc Tree Work/Removal @ Garner Tank Site	2,040.00

Seq	Payable To	For	Amount
32	Staples Business Credit	Laser Printer (\$239), Drafting Table (\$199) & Misc Office Supplies (\$459)	897.36
33	State Water Resources Control	D3 Exam Fee (Simpson)	100.00
34	State Water Resources Control	Clean Water SRF Loan Principal & Interest-RW North Seg 2 (Pymt #8 of 20)	116,128.88
35	Syar Industries	Asphalt (6 tons)	909.69
36	Thatcher of California	Chlorine (4,000 lbs) (STP)	3,766.40
37	Verizon Wireless	Cellular Charges: Data (\$917), Airtime (\$229) & iPads for Asset Management (\$200)	1,346.02
38	White & Prescott	Prog Pymt#14: Majauskas Water Line Easement (\$360) & Prog Pymt#15: AEEP Easement Support-B2 Reach A (\$5,760) (Balance Remaining on Contract \$15,260)	6,120.00
		<b>TOTAL DISBURSEMENTS</b>	<b><u>\$452,930.14</u></b>

The foregoing payroll and accounts payable vouchers totaling \$452,930.14 are hereby approved and authorized for payment.

  
Auditor-Controller

9/8/2020  
Date

  
General Manager

9/8/2020  
Date



## **PLANNING TOOL FOR LOCAL WATER MANAGERS RELEASED FOR PUBLIC COMMENT**

- BY DEPARTMENT OF WATER RESOURCES
- SEP 1, 2020
- WATER NEWS

SACRAMENTO— Updated draft guidance for local water managers in developing state-mandated water management plans have been released for public comment. New elements for the urban and agricultural water management plans reflect lessons learned from the 2014 – 2017 drought, advances in water measurement technology, and a continued commitment to the long-term sustainability of the Delta.

Urban and Agricultural water management plans serve as long-term water supply and demand management strategies. Both water management plans assess current water demands and supplies; however, Urban water management plans estimate future needs and opportunities while Agricultural water management plans assess water management objectives. The new draft guidance responds to recent legislation updating the required components of each plan.

“Proactively preparing for the effects of climate change, extreme weather and extended dry periods is critical to ensuring long-term, regional sustainability,” said Kris Tjernell, Deputy Director for Integrated Watershed Management at the California Department of Water Resources. “Assisted by DWR’s updated guidebooks, local agencies will be better positioned to invest in diverse and innovative water management strategies, actions also called for in Governor Newsom’s Water Resilience Portfolio.”

For the first time, agricultural water management plans will include a water budget to account for all water supplies and uses, a quantification of water use efficiency as well as actions to prepare for and manage through periods of inevitable drought. Urban water management plans will assess

an agency's ability to manage through at least five years of drought. Urban suppliers will also assess their systems' vulnerability to earthquakes and climate change and must ensure that their planning efforts align with local Groundwater Sustainability Agency plans.

These planning efforts will encourage local agencies to develop and invest in regional supply strategies such as water efficiency, water recycling, and improved groundwater management. Urban and agricultural water suppliers are required to develop and submit water management plans to DWR every five years. The draft guidebooks include background information and tables that suppliers can incorporate into their plans.

The Delta Plan requires agricultural and urban water suppliers that anticipate participating in or receiving water from a proposed Delta project to demonstrate in their plans a reduced reliance on water from the Delta. DWR developed draft guidebook appendices to explain the requirement and provide example technical approaches for quantifying reduced reliance on the Delta. The examples were developed in close coordination with stakeholders including the Delta Stewardship Council (DSC) and water agencies. This is one factor the DSC may take into consideration when making a consistency determination on project applications.

On Sept. 16 DWR will host virtual public workshops to collect input and public comment on the draft guidebooks. The public comment period will close at 5 p.m. Monday, Sept. 21. For more information about attending the public workshops and submitting a comment, contact Sabrina Cook at [sabrina.cook@water.ca.gov](mailto:sabrina.cook@water.ca.gov).



**ASSOCIATION OF  
METROPOLITAN  
WATER AGENCIES**

Monday Morning Briefing

September 7, 2020

## AMWA urges prioritization of water workers in vaccine framework

On Friday, AMWA submitted [comments](#) to the National Academies of Science, Engineering and Medicine's (NASEM) draft of [Preliminary Framework for Equitable Allocation of Vaccine for the Novel Coronavirus](#). The document, developed by a NASEM committee at the request of the National Institute of Health and the Centers for Disease Control and Prevention, identified four priority phases based on factors that included groups' relative health risks, the extent of interpersonal interaction, and the availability of personal protective equipment. Notably, the framework does not use the "essential workers" designation prioritized by the DHS Cybersecurity and Infrastructure Security Agency but instead uses the term "critical risk workers."

AMWA noted that while "critical risk workers" in "blue collar" positions were included in Phase 2, such workers in the water sector are responsible for operating and repairing water systems that support the work of Phase 1 individuals such as firefighters and high-risk healthcare workers. The letter encouraged the committee to specifically identify the water sector as one of the sectors that employs "critical risk workers" and urged the committee to consider the water sector as a Phase 1 priority given its essential support for the work of Phase 1 workers. The letter also noted that continuous water service is essential for handwashing, a key step in controlling the transmission of the novel coronavirus.

# ***Recent blackouts show state has power supply problem***

Dan Walters

## **Marin Independent Journal**

The rolling electrical blackouts that hit California in mid-August were — or should have been — a wake-up call about power supply deficits that have been building for years. Simply put, state political leaders have committed California to phasing out nuclear- and hydrocarbon-powered generation in favor of “renewables — primarily solar panel and windmills — in the name of battling climate change, but have failed to ensure we have enough juice to meet demands during the transition.

One nuclear plant, San Onofre, has been shuttered and the other, Diablo Canyon, is scheduled to shut down in a few years. We have shunned imported power generated by coal and one by one, natural gas fired plants have been ticketed for closure.

At the same time, the amount of electricity generated by sun and wind has been increased with the goal of achieving 100% renewable supply by 2045.

On paper, the transition seems to balance out; on some days California generates more sun and wind power than it can consume. But the sun doesn’t always shine and the wind doesn’t always blow.

This year’s brief blackouts occurred during a massive heat wave that drove demand from residential, industrial and commercial air conditioners to very high levels, peaking in late afternoons and early evenings when solar power was declining.

California’s Independent System Operator (ISO) could not fill the gaps with power from other states because they, too, were experiencing the heat wave, so it ordered selective blackouts to prevent a system-wide crash.

The last time California experienced blackouts, two decades earlier, the governor at the time, Gray Davis, was recalled, and that history was not lost on Gov. Gavin Newsom.

Newsom directed the ISO, the Public Utilities Commission and the Energy Commission to investigate causes, declaring, “These blackouts, which occurred without prior warning or enough time for preparation, are unacceptable and unbefitting of the nation’s largest and most innovative state. This cannot stand.” The agencies quickly responded, “We are working closely as joint energy organizations to understand exactly why these events occurred. The grid conditions of August 14 and 15 ... were high, but not above similar hot days in prior years.”



While the demands those two days were not excessive in historical terms, the ability to respond to them had been truncated by a failure to maintain flexible supplies that

could be brought on line quickly, such as gas-fired “peaker” plants. In fact, the ISO had been warning state political authorities for quite some time that California would face a supply crunch under the circumstances that occurred two weeks ago.

By happenstance, the new sensitivity about our power supply deficit comes just as another state agency, the Water Resources Control Board, is on the verge of deciding whether four gas-fired plants in Southern California that use seawater for cooling should be closed as long planned.

Closure would advance the transition to renewable sources, but the Public Utilities Commission and the ISO want to keep them on-line a few years longer, citing the need for flexibility until renewables and new technologies, such as battery banks, are reliable enough to carry the load.

Under the circumstances, delay would seem to be a no brainer. But environmental groups are opposed, fearing the transition to renewables will be retarded, and Newsom is trying to walk a fine political line.

“We cannot sacrifice reliability as we move forward in this transition,” Newsom said. He knows that were the plants to shut down and Californians were to experience more blackouts, he would pay the political price. *CalMatters is a public interest journalism venture committed to explaining how California’s state Capitol works and why it matters. For more stories by Dan Walters, go to [calmatters.org/commentary](http://calmatters.org/commentary).*

**This year’s brief blackouts occurred during a massive heat wave that drove demand from residential, industrial and commercial air conditioners to very high levels, peaking in late afternoons and early evenings when solar power was declining.**



**Dan Walters**

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# West Marin crews have fire 57% contained

## POINT REYES

Controlled burns used to get handle on blaze

### **Marin Independent Journal**

**By Adrian Rodriguez**

[arodriguez@marinij.com](mailto:arodriguez@marinij.com)

Firefighters are continuing to knock back the wildfire in the Point Reyes National Seashore, bringing containment to 57% Thursday as hot weather bears down on the region.

Crews have been using prescribed burns to help control the 4,626-acre Woodward fire burning west of Olema, officials said. The effort has allowed firefighters to increase containment to 57% and lift some evacuation warnings. Full containment is expected Tuesday.

Containment means that the trees, shrubs and grass around the perimeter have been burned out and the fire is unlikely to jump that buffer. The interior of the fire will continue to burn before it is completely extinguished.

“This fire is going to be with us for a while,” Marin County fire Chief Jason Weber said, “and that’s important to remember. We’ve got several weeks ahead of us and a lot of work to be done.”

Evacuation warnings for Olema, Inverness, Drakes View and Sea Haven were lifted Wednesday night.

An evacuation order for Silverhills and evacuation warnings for Inverness Park and Bear Valley are still in place.

A new firefighting team from the Great Basin area of Nevada is expected to arrive this week and assume command on Monday.

As progress continues, officials will be reducing their fire response. More than 60 Marin County and local government firefighters were released Wednesday and Thursday after more than 14 days fighting the fire. There were 486 firefighters battling the blaze as of Thursday morning.

Firefighters will continue using tactical controlled burns to contain the fire lines using drones that drop incendiary canisters onto slopes and through hand ignition, officials said.

Weber said crews will focus their attacks on the northeastern side of the fire.



“We’re going to make sure that’s safe so that we can try and get folks back into their homes, that’s our goal,” he said.

Marin County sheriff’s Sgt. Brenton Schneider said more evacuation warnings could be soon be lifted.

The smoke is starting to clear out, but poor air quality could still affect the county. Daytime highs are expected to reach about 72 degrees along the coast with winds between 6 and 11 mph and gusts up to 18 mph.

The National Weather Service said temperatures along the coast could reach the low 80s on Sunday, which is expected to be the hottest of the long Labor Day weekend. Temperatures could reach the 90s in Central Marin, San Rafael and Novato, according to the weather service.

Overall, winds will remain low, meaning any drift smoke over the county could remain stagnant, sitting above the county.

Jeremy Michael, the incident meteorologist assisting the firefighting team, said the humidity this week has made conditions “soupy and socked in,” but that is changing.

The marine layer is expected

to burn out earlier each morning as the heat comes. “That earlier erosion, that’s more sun on the fire, that’s warmer temperatures, drier relative humidity even at nighttime,” he said. Weber said it’s encouraging to see progress.

“I’d be remiss if I did not thank every firefighter that’s been out here to get us to this point,” he said. “The incident management team that’s been working with us hand in hand, our law enforcement partners — this has been a team effort.”

Weber reminded residents that the Point Reyes National Seashore remains closed and hammered in the warning to visitors to stay away from the West Marin coast over the weekend.

“Let us get this work done so we don’t drag this out,” he said. “Please don’t come to the coast, there’s just no room for you this weekend.”

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# ***Novato trash plan could cost residents***

## **Editorial**

### **Marin Independent Journal**

That Novato City Hall is looking for more revenue, especially given the cost of the pandemic on local sales tax income, is not a big surprise.

But a proposal to take over the local garbage franchise, long-controlled by the Novato Sanitary District, has the look of, borrowing from an old saying, “robbing Peter to pay Paul.”

In short, the city can legally take control of the franchise within the city’s boundaries, possibly leaving the district to oversee the franchise in unincorporated parts of Novato.

Currently, the district’s Novato- wide franchise raises about \$45,000 for the district’s general fund.

State law allows for municipalities to charge more to cover the cost of garbage trucks’ wear and tear on public streets. That could generate \$500,000 to \$1 million for the city’s budget, according to the city’s rough estimates.

San Rafael made a similar move nearly 20 years ago when it took over the franchise for Terra Linda and the Northgate areas, which the Las Gallinas Valley Sanitary District had historically overseen.

Before the Novato City Council makes that move, it needs to ask who is going to pay that difference in revenue?

We know the answer: Novato households who are due to see their rates rise.

What are ratepayers getting for paying higher rates?

The district apparently is open to transfer the job to the city and there is the question of whether that would include unincorporated areas, as well.

The council has already told city staff to begin negotiations with the district, the franchisee, Recology Sonoma Marin, and the county, which could take over oversight for unincorporated areas.

Does this proposed transfer make sense, other than as a vehicle for generating more money for the city?

Councilwoman Pat Eklund is already expressing reservations, displeased that the council could take criticism for increased rates. Rates are already expected to rise — an estimated 7% to 15% over the next few years — in response to state mandates and

to make up for the downturn in demand and prices for recyclables.

The city takeover could likely bring with it an additional increase, another 4% to 8% to generate money for repairing local streets and managing the franchise and solid waste responsibilities.

Councilman Eric Lucan says the city has been “shortchanged for years” by passing up the opportunity to take over the franchise. He says the city needs to take a long-term look at the option.

Lucan is right. But in doing so, the city also needs to bring ratepayers into the discussion. Letting them know, for instance, what the proposed change means to their garbage bills and what the city will do with the additional cash and responsibilities.

Would there be any changes in the local recycling or hazardous waste drop off programs? What local programs and services would be pared or eliminated if the budget strapped city doesn't generate more revenue?

The city is smart to look at enhancing its revenue, but it also needs to look at who will be paying more to increase that income. And those who will be paying more deserve to know, upfront and ahead of any decisions, what they will be paying and getting from their important role in this civic shuffle the city is now pursuing.

**Before the Novato City Council makes that move, it needs to ask who is going to pay that difference in revenue? We know the answer: Novato households who are due to see their rates rise.**

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# Meet Marin's oldest active schoolhouse

By Derek Wilson

## Novato Advance

### *Marinscope*

One of the oldest active schoolhouses in the Marin-Sonoma area for more than a century has opened its doors to generations of students — some who graduated and eventually moved out of the area, and some who stayed to work family ranches in West Marin.

The Lincoln Union Elementary School, built in 1872, now seems like a holdover from the past — a living time capsule — but even this one-room schoolhouse has had to adjust, especially in this challenging year.

“I think in this area, we’re a microcosm. Life is different on the ranches than it is 5 miles down the road (in Novato),” said Jim Grossi, a member of the Lincoln Union School Board for 40 years. “People are very interested in the type of basic education we offer and the different values and different exposure than what they’re used to. Parents want that type of education for their kids.”

Grossi’s family has worked their family ranches in Novato, Tomales, Point Reyes for more than a century. His aunts and uncles attended the one-room Burdell School, which was located near Stafford Lake before the school was moved to a Grossi ranch — and later burned down.

“I had one teacher for seven years and I didn’t like her much,” said Grossi, as he recalled his days at the Burdell School. “Half the kids were cousins and brothers and sisters. The first graders were on one side of the classroom and the eighth graders were on the other side.”

Life on the ranches and in the small schools that serve their families has over the years, but the core remains as family.

“Typically, one-room schools have more of a family atmosphere,” said Cynthia Walsh, principal and teacher at Lincoln Union Elementary, which serves grades kindergarten through six. Walsh has been a teacher in the district for more than a decade, working in the Union School District before it merged with the Lincoln School District three years ago.

Walsh continued, “We have siblings and cousins all in the same room. They go to school together, and those who live together go home together, maybe on the ranches if that’s where they live.”

The school is just about seven miles outside Novato in an area surrounded by ranches and land protected by the Marin Agricultural Land Trust. The Marin County Fire Department maintains a station nearby, next to the Marin French Cheese Company. There are no school busses, so parents schedule carpools, a plan made easier by the school’s small enrollment and family ties.

“The parents are really involved in the school,” Grossi said. “Even though we have just eight students, at Christmas we’ll get 80 people coming to our programs with parents and grandparents who want to see their kids.”

As most schools have done for decades, the curriculum for younger students at Lincoln Union Elementary is based on reading, writing and arithmetic, and later includes more science, foreign language and other elements. When needed, the school and the Marin County Office of Education will bring in a teacher for Spanish classes, or STEAM Learning (Science, Technology, Engineering, Arts and Math).

But the rural roots of the school remain in the curriculum, as Walsh uses the school garden and even some chickens as learning opportunities for the students.

A state audit about 12 years ago found that roughly 93 percent of the students went on to attend community college or a four-year university, according to Grossi.

“Even the town kids see the appeal of an education like this,” Grossi said. “The rural kids learn all the trades and skills they would need on the ranch, but they graduate from here and are not held back from college.”

## **SCHOOLS AND COVID-19**

The Lincoln Union Elementary School, and other small schools in the region, carry on the tradition of serving families in remote parts of Marin and Sonoma counties. All eight students were back in their classroom on Tuesday, Sept. 8, although they still have to face safety protocols to prevent the spread of Covid-19.

“The progress we’ve made is making it possible to consider school reopenings,” said Dr. Matt Willis, Marin County Public Health Officer. “We’re at a critical juncture, and our ability to get kids back into school is up to all of us. It’s not time to relax our protective measures.”

The school was among 15 granted a waiver by the Marin County Public Health Officer to reopen for in-person education. All of the schools were required to submit safety plans as part of their waiver applications.

As part of plans for combating the spread of Covid-19 when the school reopened, Walsh was busy assigning seating at the lunch table: “The siblings and relatives sit together and the others sit at another table. It creates a bubble where they can practice safe distance.”

When schools were forced to shut down in March due to the growing concern over the spread of Covid-19, Lincoln Union Elementary School District board members and Walsh made sure all the students had computers and there was a way to use Zoom for lessons. Just because the West Marin-Sonoma area is rural and a little remote does not mean the students are cut off from technology.

“Professionally, I tried to maintain the same level of quality of work and instruction that we have in the classroom,” Walsh said. “We do benefit somewhat being a smaller school when zooming with students. Unlike with larger schools, it’s just 2-3 students and one teacher when we’re introducing new math concepts or a new story. We can have more individual instruction.”

Walsh wanted to maintain as much continuity as possible, for herself and her students, while distance learning in the Spring semester.

“One of things we were able to do that other schools are not, was to start the morning with our mat routine as a group with the virtual lessons, just as we would in the classroom. Seeing students do something familiar helped with the emotional and social bonds and their strength in hard times. It’s harder to achieve that in larger groups.”

Walsh would break the students into groups by grade as the day went on to focus on lesson plans.

“The feedback has been positive from families. They appreciate that we are able to meet in these small groups,” Walsh said. “But the families are ready for in-person learning as long as the health, cleaning and safety protocols are in place. With those pieces in place, families are ready for a return to school. The families are also fine with remote learning because we can offer more individual lessons, like tutoring.”

Walsh, herself, is eager and prepared to have her students back in the classroom and at their desks — now more spaced out to meet guidelines.



“I know that when we start morning everyone is happy to see each other,” Walsh said. “They always say ‘good morning’ and they’re happy to gather as a group. Once we dive into subject matter, it was hard to do a math problem on a white board and hold to the camera. I have to hold it to the camera and wear a wireless microphone so the students can hear me.”

Walsh will be wearing special protective equipment, which she compares to a hazardous materials suit. But it has a clear face shield so students can hear her more clearly and see her lips to more easily follow along with what she is saying during lessons.

“Socially and emotionally, I’m looking forward to our interaction in person,” Walsh said. “That’s my favorite part of the day. The benefit of returning to in-person instruction is another level above distance learning. This is going to be better.”

“It takes a special teacher to work at a one-room schoolhouse,” Grossi said of Walsh.

## **THE FUTURE OF THE SCHOOL**

The Lincoln Union School Board is currently considering a merger with the Laguna Joint School District in Petaluma. The Laguna School, built in 1906, is another one room schoolhouse. It operates two multi-age classrooms serving Transitional Kindergarten through sixth grade.

Declining enrollment over the past decade has cast a dark shadow over Lincoln Union Elementary’s future. A presentation from board members suggested the merger is necessary to ensure the survival of both schools beyond the 2021-22 school year.

Neither the Lincoln Union Elementary School nor the neighboring Laguna School is supported by parcel taxes or general obligation bonds.

The Lincoln Union School District has attempted to attract new students in order to increase its enrollment in recent years, but without much success. As a result, the State of California Office of Education has reportedly declined to increase the district’s funding beyond 2012-13 levels. Although the district’s reported gross revenue is solid, the lack of students could lead to the school’s demise.

Laguna has 10 students according to the latest census, but also more expenses, particularly special education costs, and a lower revenue. Despite its proximity to Downtown Petaluma, Laguna Elementary School does fall under Marin County’s control.

“Laguna has plenty of students and we still have plenty of money, so it’s a good match,” said Grossi, who joked that the two schools together could have enough students to form a sports team.

This wouldn’t be the first merger for the Lincoln Union School District. The Union School District merged with the Lincoln School District three years ago, and students attend the nearby Lincoln Union Elementary School on Hicks Valley Road in Petaluma, just 10 miles west from Highway 101. The old Union schoolhouse on Petaluma Road just inside the Marin County line is mostly empty these days, although the district plans to maintain it as a community resource for meetings, social activities, and other functions.



Marin’s oldest active one-room schoolhouse, Lincoln Union Elementary, opened in 1872

MARINSCOPE PHOTO

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# POINT REYES LIGHT

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## Woodward Fire lays its smoke over West Marin



David Briggs

Air quality in much of West Marin has been dismal this week as the 4,000-acre Woodward Fire burns on. Towns to the north and east have suffered the most, though a shift in weather this weekend will likely push smoke south toward Bolinas again.

By Braden Cartwright  
09/02/2020

Firefighters made significant progress on the Woodward Fire this week, but West Marin's largest fire in 25 years continues to smolder in the dense wilderness, filling the air with toxic smoke more than two weeks after its ignition.

Fog and lower temperatures are keeping the flames calm, allowing crews to box the fire between ridges, roads and trails. Control lines have been secured by dozers, hand crews and backburns around 95 percent of the 4,000-acre fire. The lines will be tested by warmer weather and faster winds.

The marine layer, which forms when air over the chilly Pacific Ocean moves inland, is the biggest factor in the fire's behavior, as it generates fog, humidity and lower temperatures. Those conditions can either aid or frustrate firefighting efforts, and they are especially strong in the summer.

Fog benefits the firefight by dampening fuels and blocking the sun from drying out plants, but it also creates challenges. Often, air support has been grounded because visibility is too poor, and crews haven't attempted backburns because vegetation is too moist.

"The marine layer is our friend, but like any friend, if he stays too long, then he eats all your food, he drinks all your beer and he annoys the heck out of you," operations chief Mike Granger said.

The marine layer also mixes with the smoke and prevents it from dissipating, which is why air quality has been so unhealthy in Marin.

Because the timber in the interior of the fire is extremely thick and unreachable islands of green remain inside the burn area, the fire will continue to produce smoke until a few inches of rain end the fire season, which isn't predicted for months, Marin County Fire chief Jason Weber said. Fortunately, when the weather warms and dries, as it usually does in the fall, the fire will burn cleaner and fog won't trap the smoke, improving air quality.

"This is putting out an unprecedented amount of smoke," Mr. Weber said. "It's pretty nasty, and it's going to be that way for a little bit."

About half of the Woodward Fire is burning in the footprint of the Vision Fire, which marks its 25th anniversary in October. Firefighters are doing all they can to prevent the blaze from reaching the diseased bishop pines on the Inverness Ridge that torched in the Vision Fire. The pines are thin and flammable, and they border homes. So far, the blaze has stayed in chaparral and uninhabited forests mixed with firs, bays, oaks and pines.

Firefighters are using the ocean as an anchor point and working on control lines to the north, east and south. In areas by the beach, crews have found success in the coastal scrub, which reaches seven feet high in some spots. Although retardant can't fall through, dozers and hand crews can cut lines.

Firefighters have placed over two miles of hose on the northern dozer line, with hundred-foot hoses branching off a main line for mopping up hot spots. That edge is at the top of a ridge, and the goal is to prevent burning in the next drainage, which aligns with the usual wind patterns and leads up into Inverness Park.

The southern edge, about six miles from Bolinas, is calm thanks to favorable winds and successful backburns. The town's evacuation warning was lifted this week, and residents benefited from clearer skies.

The biggest concern for operations managers is the northeastern edge, which threatens park buildings and 90 homes. Firefighters are making their stand along two roads: Linantour Road and the Bear Valley Trail, a fire road. On windy days, when branches fall or an ember blows across one of the roads, they quickly extinguish any ignition.

The work is dangerous: Two firefighters were taken to the hospital last Thursday after debris from a burning tree fell on them, and later that day, a five-foot-wide Douglas fir toppled over the fire road, blocking an exit route. Large bays also crack across the roads, and crews hear trees fall in the forest interior.

"That continues to happen, and that continues to be a very big concern for the safety of our fire personnel," operations chief Brandon Cichowski said.

Hand crews are staying within 100 feet of the fire's perimeter to reduce the risk of falling trees, and unmanned aircraft specialists are deploying drones. These fly over unburnt areas with plastic spheres containing chemicals that react in flames after they fall to the ground. The drones can fly when helicopters cannot, transferring risk away from firefighters and pilots.

Along control lines, firefighters are intentionally lighting the understory and directing flames toward the wildfire's edge, so the fire can't advance. The backburns give firefighters wiggle room and protect the canopy from a crown fire; about



half of the fire's acreage was created by these burns.

This weekend, firefighters performed a backburn in Kule Loklo, the replica Coast Miwok village near the Bear Valley Visitor Center, protecting the wooden structures while the dry grass blackened.

Early in the week, the marine layer got stubborn, and backburns were limited because the humidity remained above 80 percent into the afternoon. For a backburn to be successful, humidity needs to fall below 70 percent so that fuels are dry enough to burn, Mr. Granger said.

The mood on the front lines is calm and methodical, as firefighters wait for more action. More wind and warmer temperatures in the 70s are forecast for this weekend, which could wake the fire up.

The blaze was sparked on Aug. 17 during a rare lightning storm, and smoldered for a day before a lookout camera detected a column of smoke in the Woodward Valley.

A crew of firefighters on the scene of a slow-moving fire two miles away hiked to the ignition point, but they were outgunned. Without engines or hoses, the crew resorted to sawing and axing a perimeter around the fire.

They requested air support, but Cal Fire faced hundreds of lightning-sparked fires across the state, and planes and helicopters were unavailable. The fire flashed through the forest, growing to more than 700 acres in five hours. A cloud of smoke billowed over the ridge, and residents were told in a series of evacuation warnings to be ready to go on a moment's notice.

After two days of steady growth, help arrived for firefighters on the ground. Air tankers dropped over 68,000 gallons of fire retardant, while amphibious planes and helicopters dropped nearly a half-million gallons of water pulled from Tomales Bay, Nicasio Reservoir and ranch ponds.

A federal incident management team with experience from Alaska to Australia was called in from Montana to oversee operations, and hundreds of firefighters arrived to work. Bulldozers cut large control lines through the earth, and operations managers identified a box in the geography in which the fire could be contained.

Since the fire grew out of control, it's burned an average of about 250 acres per day to its current size of 4,538 acres. The box around the fire is roughly 5,000 acres.

Three streets off of Bear Valley Road remain under an evacuation order, and deputies are patrolling the empty neighborhoods. The sheriff is considering lifting both the order and remaining warnings soon. Defensible space inspectors completed their checks and wood-chippers helped remove brush at homes near the fire this week.

West Marin residents have shown their support for firefighters by placing signs of gratitude along roads, and local restaurant owners are stepping up with meals. Café Reyes has donated pizzas, and the Bovine Bakery and Saltwater Oyster Depot are making almost 100 dinners a night, all funded by individual donors.

At Saltwater, the tables are empty, but the counters are overflowing with locally produced veggies, bread and meat. Owner Luc Chamberland heard firefighters weren't fond of their federally contracted meals because the food is processed, so he decided to offer his own catering service. It's kept his employees working, and he can support local producers who may have lost restaurant contracts. Cooks make and deliver meals each evening to the former San Geronimo Golf Course, which has transformed into a large basecamp for the crews dedicated to the fire.

For Jenna Rempel, a cook at Saltwater, the meal preparation keeps her busy during a stressful time. She lives on Drakes View Drive, less than a mile from the fire, so she's been staying with a friend in Stinson Beach to be safe.

"I don't know what I'd be doing if I wasn't working. Probably going crazy," she said while slicing Star Route Farms tomatoes to put on burgers.

In a sign of colliding disasters, Ms. Rempel wears two masks, one to prevent smoke inhalation and another to prevent spreading the coronavirus.

After months of fractional income due to Covid-19, the unhealthy air has dealt yet another blow to businesses on the coast, as the park is closed and visitors are urged to stay home.

In Point Reyes Station this week, thick smoke settled and a red-orange sun glowed over the town, whose tourist-serving businesses are already facing a dire financial outlook. Restaurants, limited to takeout and outdoor dining, don't want to put diners outside in the smoke, and inns don't feel comfortable hosting guests while the area is under an evacuation warning.

"We get hit with one disaster after another," said Susan Howard, an owner of the Cottages at Point Reyes Seashore, where all the bookings were canceled. "We have no income, and we still have all of our bills."

For longtime residents of West Marin, the current blaze brings back memories of the 1995 Mount Vision Fire, a larger and more destructive event that burned 45 homes in Inverness Park and over 12,000 acres in the seashore. Just two days after it started, the Vision Fire was nearly three times the current size of the Woodward Fire.

Like the Woodward Fire, the Vision Fire smoldered in a remote area before it was picked up by the wind and blown through dry, heavy fuels. First responders struggled to access both fires early on, and they had limited resources.

But the weather, geography and ignition source of the two fires are different. The Woodward Fire started a mile from the beach, then spread up the ridge through a mixed forest, with thicker trees. The Vision Fire started from an illegal campfire on the ridge, and then spread to the beach through thinner bishop pines that lit like matchsticks. The humidity was lower, and the winds were stronger.

Yet many areas of forest are even more of a fire hazard now than they were before the Vision Fire, which caused vegetation to bounce back with abundance. Bishop pines rely on fire to regenerate, and after the 1995 fire, the number of pines exploded. That forest is now suffering from an infection of pine pitch canker fungus, and dead branches and trees are strewn over the forest floor.

Greg Jones, the fire management officer for the seashore, said the park service is doing the best that it can with limited resources. He took the position of overseeing fire management for all national parks in the Bay Area at the end of the last year, and he's still developing a strategy for reducing the fire threat. The park service is focusing its efforts around private property, so the area that is burning now was never considered for a controlled burn or mechanical treatment.

"We feel we get the most bang for the buck to really just work right around the park service boundaries, where we border up against our neighbors," he said.

Along those borders, the fire threat remains high, as unburnt piles sit on the ridge, dead trees are ready to fall and the ground is littered with woody debris.





## West Marin's Past

by Dewey Livingston

THE 1995 VISION FIRE. It was almost 25 years ago that a wildfire erupted above Inverness, on Mount Vision. It quickly spread west and south, devouring over 12,000 acres of the national seashore and dozens of houses in Paradise Ranch Estates. The Woodward Fire has burned some of the land involved in the 1995 fire, but has reached an area that hasn't burned in recorded history, above the Bear Valley Trail. The name is derived from Woodward Valley, named for Henry and Robert Woodward, two of the founding members of The Country Club, an exclusive private game preserve and social club at Divide Meadow that operated from 1890 into the 1930s. Today's fire started near Coast Camp, which wasn't spared in 1995. In this photograph, Point Reyes National Seashore's Coast Miwok-Pomo interpreter Lanny Pinola looked over a charred picnic table at the campground. *Photograph by the author.*

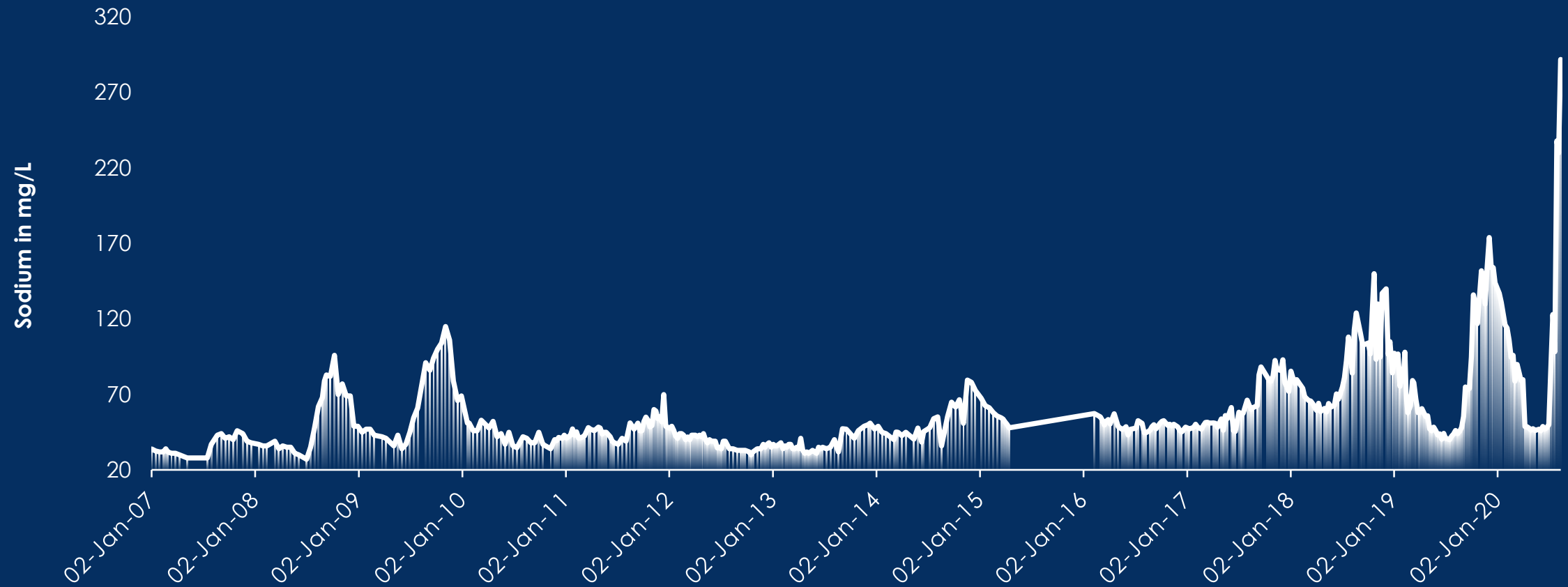
**SUPPLEMENTAL  
INFORMATION  
PROVIDED AT  
MEETING**

# NORTH MARIN WATER DISTRICT COAST GUARD WELL SALINITY INTRUSION

Update of Current Conditions  
September 2020

# SALINITY CONCENTRATIONS SODIUM

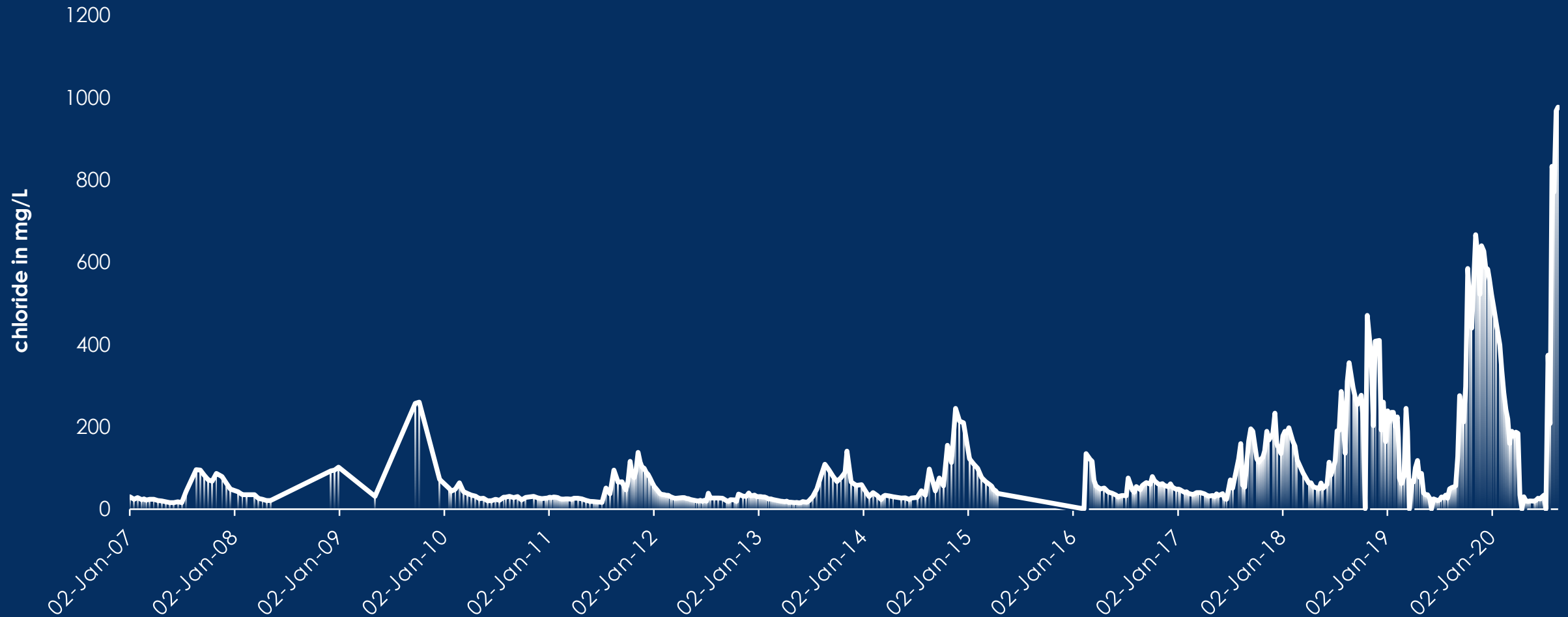
## COAST GUARD WELL 2 SODIUM



# SALINITY CONCENTRATIONS

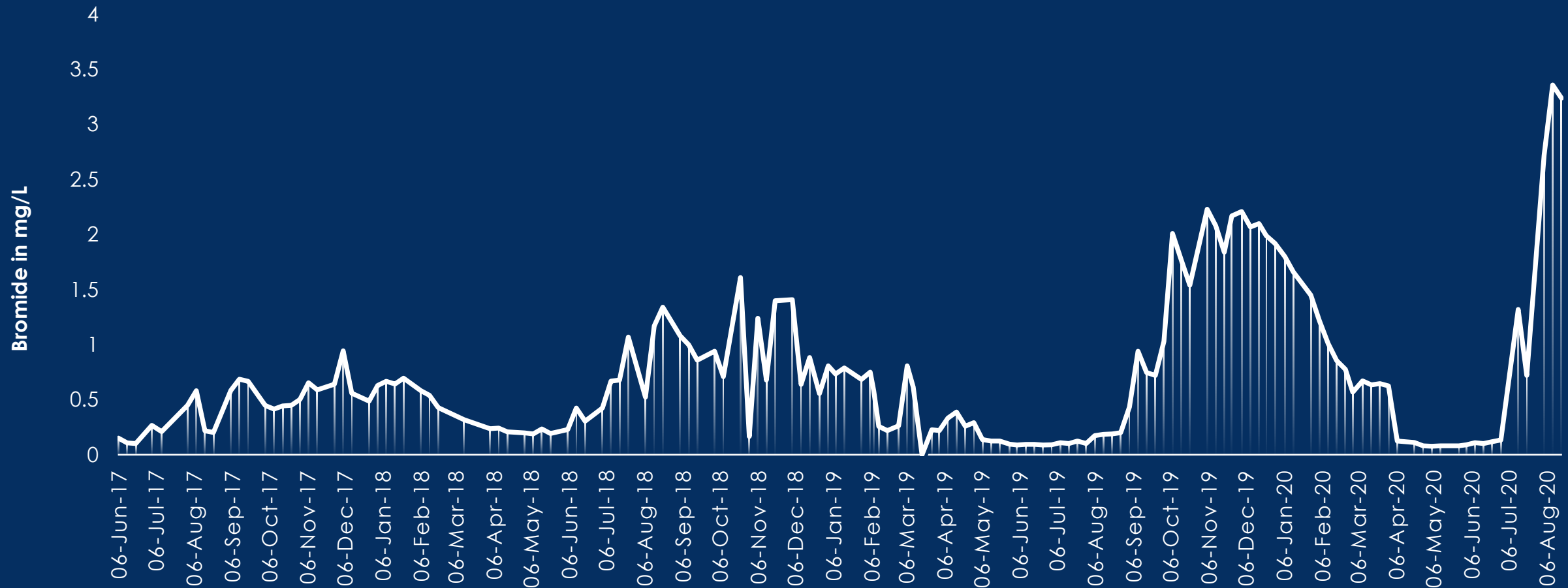
## CHLORIDE

### COAST GUARD WELL 2 CHLORIDE



# SALINITY CONCENTRATIONS BROMIDE

## COAST GUARD WELL 2 BROMIDE





# SECONDARY MAXIMUM CONTAMINANT LIMITS

- ▶ Secondary Maximum Contaminant Limits (SMCLs) are non-enforceable limits set by the federal EPA and California Division of Drinking Water.
- ▶ Unlike Primary Maximum Contaminant Limits which are regulatory limits to protect public health from dangerous levels of contaminants and pollutants, SMCLs are levels based on aesthetics.

“They are established as guidelines to assist public water systems in managing their drinking water for aesthetic considerations, such as taste, color, and odor. These contaminants are not considered to present a risk to human health at the SMCL.”

EPA, Secondary Drinking Water Standards: Guidance for Nuisance Chemicals

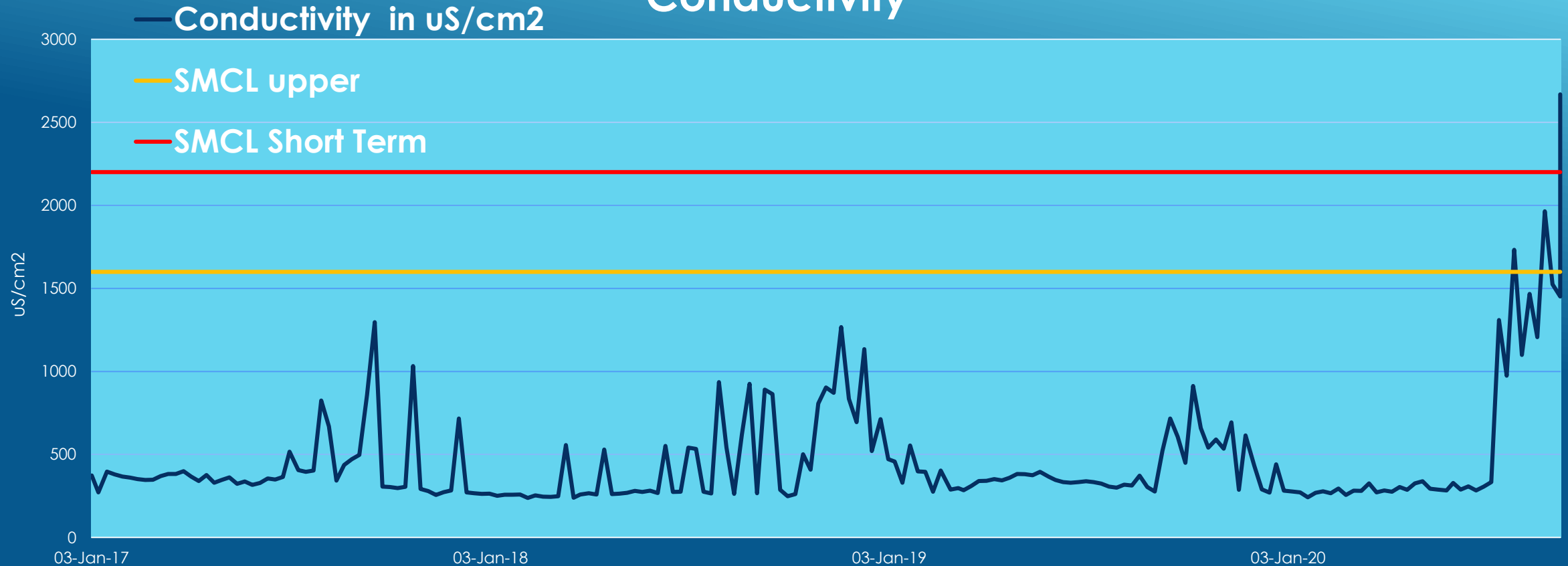
- ▶ SMCLs for levels of constituents affected by salinity intrusion observed in NMWD's wells are based on a salty taste.

# SMCLS FOR SALINITY COMPARED TO CURRENT WATER IN POINT REYES SYSTEM

Constituent	US SMCL	CA SMCL	NMWD Point Reyes system (8/25/20)
Chloride	250 mg/L	Upper - 500 mg/L Short Term - 600mg/L	532 mg/L
Conductivity	None	Upper - 1,600 $\mu\text{S}/\text{cm}^2$ Short Term - 2,200 $\mu\text{S}/\text{cm}^2$	1921 $\mu\text{S}/\text{cm}^2$
Sodium	None	None	160 mg/L

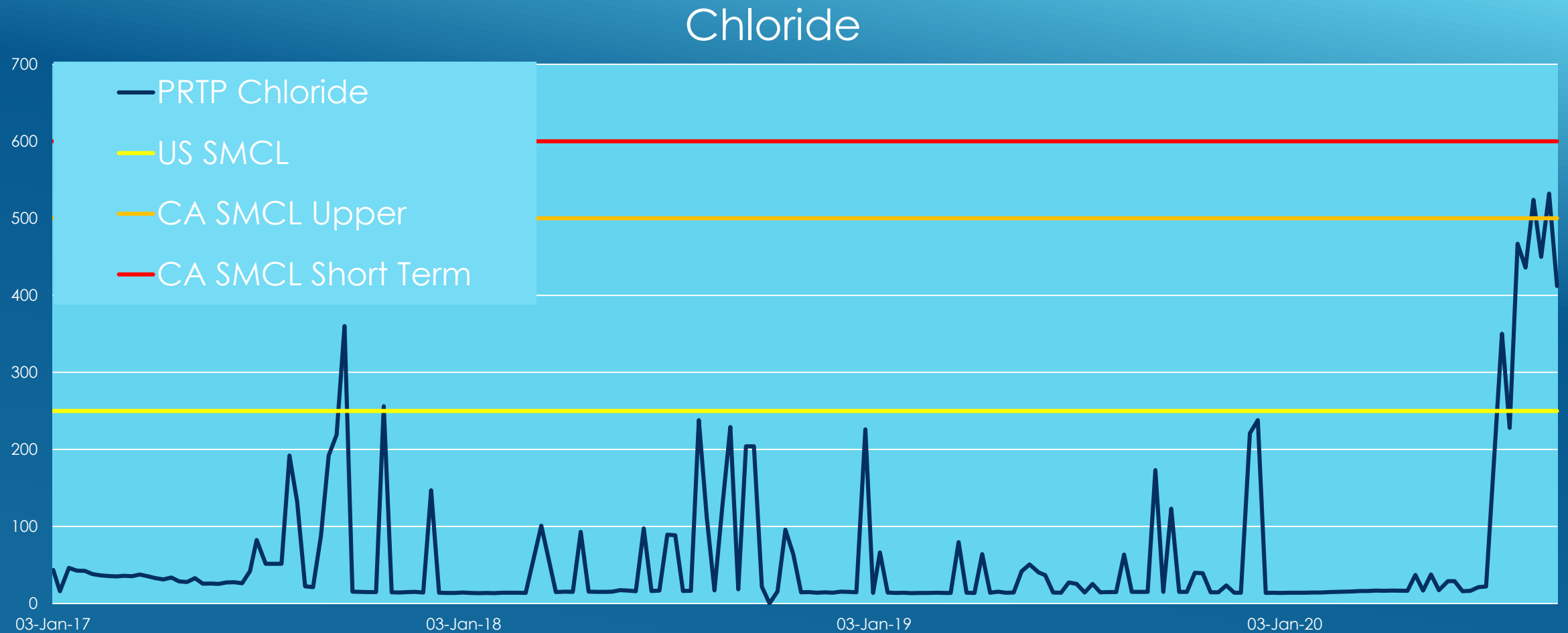
# DISTRIBUTION SYSTEM

## Conductivity



- ▶ \*data from PR treatment plant effluent and 4 distribution system sample sites

# DISTRIBUTION SYSTEM



- ▶ \*Data from PR treatment plant effluent and 4 distribution system sample sites